CITY WATER, LIGHT AND POWER
CITY OF SPRINGFIELD, ILLINOIS
MISTY BUSCHER, MAYOR
SCOTT M. ROGERS, CHIEF UTILITY ENGINEER

VIA E-MAIL: dierich.andrea@epa.gov

October 30, 2026

Andrea Dierich
EPA Project Officer
US EPA, Region 5
77 W Jackson Blvd
Chicago, IL 60604

RE: CCR Surface Impoundments
Assessment of Corrective Measures Revised October 2026

Dear Ms. Dierich:

Provided herein is the revised Assessment of Corrective Measures for the CCR Surface Impoundments in accordance with paragraph 270 of the Consent Agreement and Final Order effective January 14, 2025 and comments received from EPA on August 11, 2026.

Should you have any questions or require additional information, please contact me at 217-757-8610 ext. 1110.

Sincerely,

PJ Becker
Environmental Health and Safety Manager

Certification of City Water, Light and Power

City of Springfield, Office of Public Utilities, d/b/a City Water, Light and Power provides the following certification as required by paragraph 300 of the Consent Agreement and Final Order effective January 14, 2025.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: 
Name: PJ Becker
Title: Environmental Health and Safety Manager
Date: 10/30/2026

Dallman and Lakeside Ash Ponds

Assessment of Corrective Measures

City Water, Light and Power
Springfield, Sangamon County, Illinois

September 23, 2025, revised October 28, 2026

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1. Introduction

1.1 Regulatory Requirements

This document serves as CWLP's Assessment of Corrective Measures (ACM) as agreed in the January 2025 Consent Agreement and Final Order. This ACM addresses the surface impoundments statistically significant levels (SSL) identified in the February 13, 2025 Groundwater Protection Standards Report for arsenic at RW-3, AP-7, AP-8 and AW1 along with cobalt at AP-2A and AP-3.

§ 257.95(g)(3)

- This regulation sets forth the requirements if any of the constituents listed in Appendix IV have been detected at a statistically significant level exceeding the groundwater protection standards.

§ 257.96

- This regulation sets forth the requirements of an assessment of corrective measures.

Consent Agreement and Final Order Attachment 1

- Additional requirements were provided to be considered in the assessment of corrective measures.

2. Site Background

2.1 Lakeside and Dallman Ash Ponds [Attachment 1, Item 1]

The CWLP ash ponds are in Section 12 R.5W, T.15N of the Third Principal Meridian in Springfield, Sangamon County, Illinois. The Site is in the Springfield Plain of the Central Lowland Province Physiographic Division of Illinois (Leighton et al., 1948).

The older of the two (2) impoundments is Lakeside Ash Pond (LAP). LAP has a footprint of approximately 36 acres and contains approximately 1,565,000 cubic yards (cu. yds.) of CCR along with water treatment plant sludge. The floor of LAP is approximately elevation 530 ft. and slopes upward in the southeast corner following the natural topography. This places the impoundment floor anywhere from 16.77 ft. (minimum) to over 69 ft. (maximum) above the Basal Sand Unit. The mean separation is 34.34 ft., and the median separation is 29.67 ft. (see Figure 1).

Dallman Ash Pond (DAP) has a footprint of approximately 36 acres and contains approximately 1,217,000 cu. yds. of CCR. The floor of DAP slopes from the south to the northeast corner (from elevation 525 ft. to about 523 ft. Note that the bottom of DAP at boring D4 is over elevation 530 ft. The DAP floor is anywhere from 10.27 ft. (minimum) to 19.86 ft. (maximum) above the top of the Basal Sand Unit. There is a mean separation of 15.21 ft. and a median separation of 15.42 ft. (see Figure 1).

2.2 Site Geology

General Site geology consists of five (5) units. Maps showing the structural contours and isopaches for each unit are in Appendix A:

2.2.1 Upper Cohesive Unit

The Upper Cohesive Unit (UCU) consists of gray to brown silty clay, clayey silt, and clay with plastic, soft to stiff consistency. Its similarity to the Lower Cohesive Unit makes it difficult to differentiate between the Upper and Lower Cohesive Units where the Shallow Sand Unit is not present. Hanson believes that the Shallow Sand Unit has been removed within the footprints of the Dallman and Lakeside Ash Ponds.

2.2.2 Shallow Sand Unit

Sitting above the Lower Cohesive Unit, the Shallow Sand Unit (SSU) consists of gray, silty to clayey fine-grained sand. It is also associated with lenses of silty clay and clayey silt. The Shallow Sand Unit can be found in isolated locations (i.e., portions of the floor of Unit 2,along the north side of Dallman Ash Pond from the middle north side to the eastern edge, and a small sand lens west of Lakeside Ash Pond). Due to the elevation differences between the three (3) shallow sand areas, Hanson interprets that these are different sand units. The Unit 2 Shallow Sand ranges from 0.0 to 6.0 ft. in thickness, the north Dallman Shallow Sand also ranges from 0.0 to 6.0 ft. in thickness, and the Lakeside Shallow Sand ranges from 2.5 to 7.0 ft. in thickness. Slug tests were performed on several wells located in the Unit 2 footprint. The geometric mean of the measurements is 5.92×10^{-4} cm/sec with a median hydraulic conductivity of 9.8×10^{4} cm/sec.

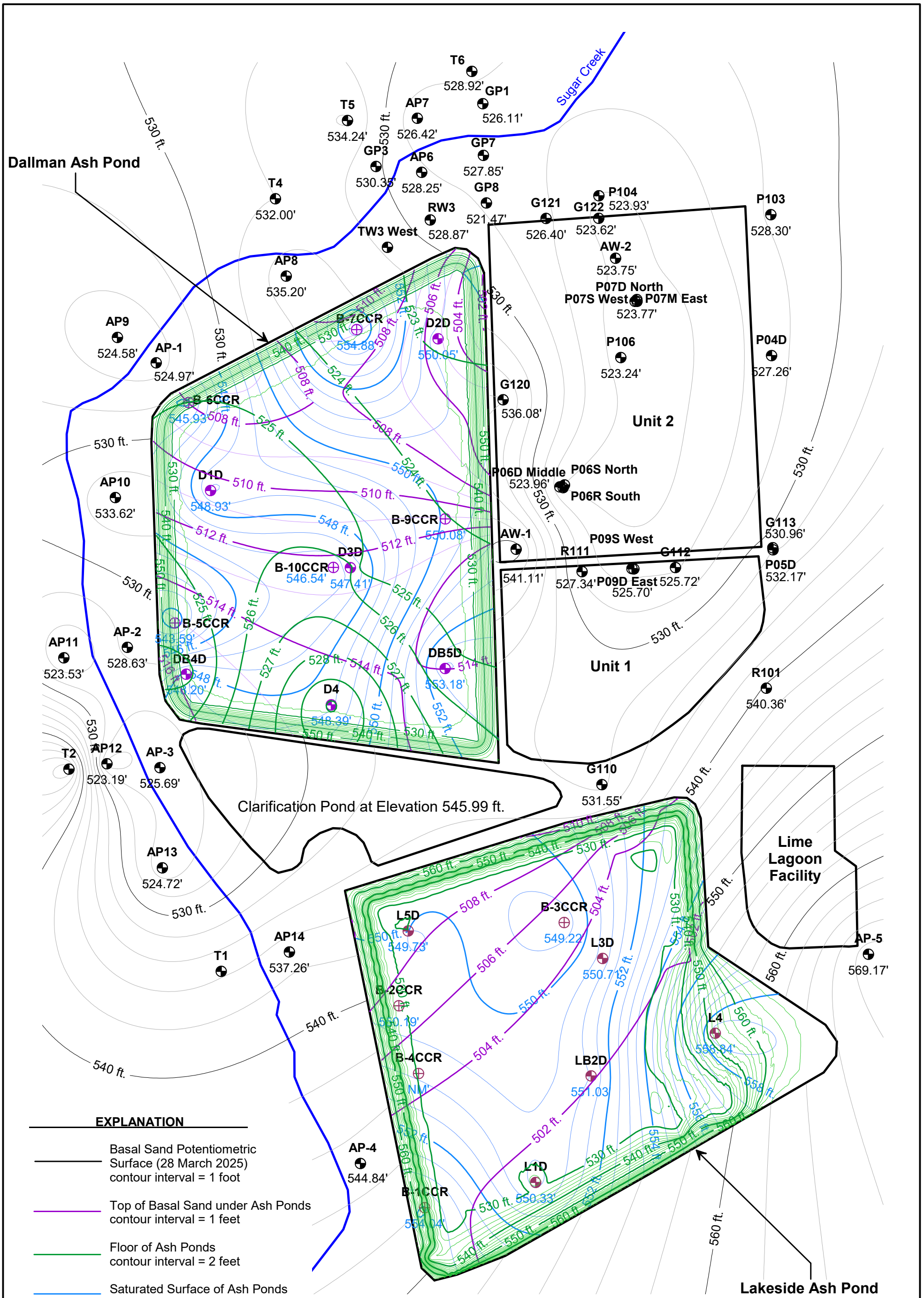
2.2.3 Lower Cohesive Unit

The Lower Cohesive Unit (LCU) generally consists of brown to gray, silty clay, clayey silt, and clay with a plastic, soft to stiff consistency. Throughout most of the Site, the LCU is overlain by the Upper Cohesive Unit. Recent investigations were conducted in both impoundments to evaluate the CCR and the LCU below. Shelby tube samples were collected from the LCU immediately below the CCR in both ash ponds. The maximum hydraulic conductivity is 6.8×10^{-6} cm/sec, and the minimum hydraulic conductivity is 1.7×10^{-8} cm/sec. The geometric mean is 3.42×10^{-7} cm/sec, and the median hydraulic conductivity is 3.65×10^{-7} cm/sec.

2.2.4 Basal Sand Unit

The Basal Sand Unit (BSU) typically sits directly on the Pennsylvanian age shales or weathered shales. The sand consists of gray, poorly sorted, silty to clayey fine- to medium-grained sand and may also have poorly sorted sand with traces of gravel. Within the floodplain area (where the impoundments and landfills are located), the elevation of the top of the BSU ranges from a maximum of 554.9 ft. to a minimum of 495.8 ft. Note that in the upland area where the Lime Lagoons are located, the elevation of the top of the sand that sits directly on the shale bedrock is at approximately 560 ft. and slopes downward to the east. Thickness ranges from less than 1.0 ft. to a maximum of 18.45 ft. Geometric mean thickness is 6.65 ft., and the median thickness is 7.93 ft.

Recently, the BSU monitoring wells were slug tested by Hanson to determine hydraulic conductivity values for the unit. Hydraulic conductivity results from the slug tests showed a maximum value of 8.84×10^{-2} cm/sec and a minimum value of 4.57×10^{-5} cm/sec. The geometric mean of the Basal Sand Unit hydraulic conductivities is 1.78×10^{-3} cm/sec, and the median value is 1.64×10^{-3} cm/sec.



EXPLANATION

- Basal Sand Potentiometric Surface (28 March 2025) contour interval = 1 foot
- Top of Basal Sand under Ash Ponds contour interval = 1 feet
- Floor of Ash Ponds contour interval = 2 feet
- Saturated Surface of Ash Ponds contour interval = 0.5 feet

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SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

Monitoring well/piezometer water levels measured on 28 March 2025.

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Potentiometric Surface Map with Ash Pond Layers

DALLMAN AND LAKESIDE ASH PONDS
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SPRINGFIELD, SANGAMON CO., ILLINOIS

HANSON NO. 25E0006.00 FIGURE NO. 1

2.2.5 Bedrock Unit

The Bedrock Unit (BU) consists primarily of Pennsylvanian age gray shales with some coal seams. Bedrock elevations range from 560 ft. on the west side of the Lime Lagoon area east of Lakeside Ash Pond to the mid-490 ft. range in Unit 2. There is also a bedrock knob (elevation 525 ft. plus) located on either side of Sugar Creek near the northeast corner of Dallman Ash Pond. Previous investigations indicated that the shale hydraulic conductivities are in the low-10^{-7} cm/sec to low-10^{-6} cm/sec with deeper packer testing results are less than 1 x 10^{-9} cm/sec (AEI, 2024).

3. Initiate Assessment of Corrective Measures [40 C.F.R. §§ 257.95(g)(3)(i) and 40 C.F.R. §§ 257.96(a)]

On March 6, 2025, CWLP provided notice of initiation of assessment of corrective measures. This notice fulfills the obligation of 40 C.F.R. §§ 257.95(g)(3) and 40 C.F.R. §§ 257.96(a).

4. Groundwater Monitoring [40 C.F.R. §§ 257.96(b)]

CWLP continues to monitor groundwater as specified in 40 C.F.R. §§ 257.95.

5. Nature and Extent of Releases [Attachment 1, Item 2]

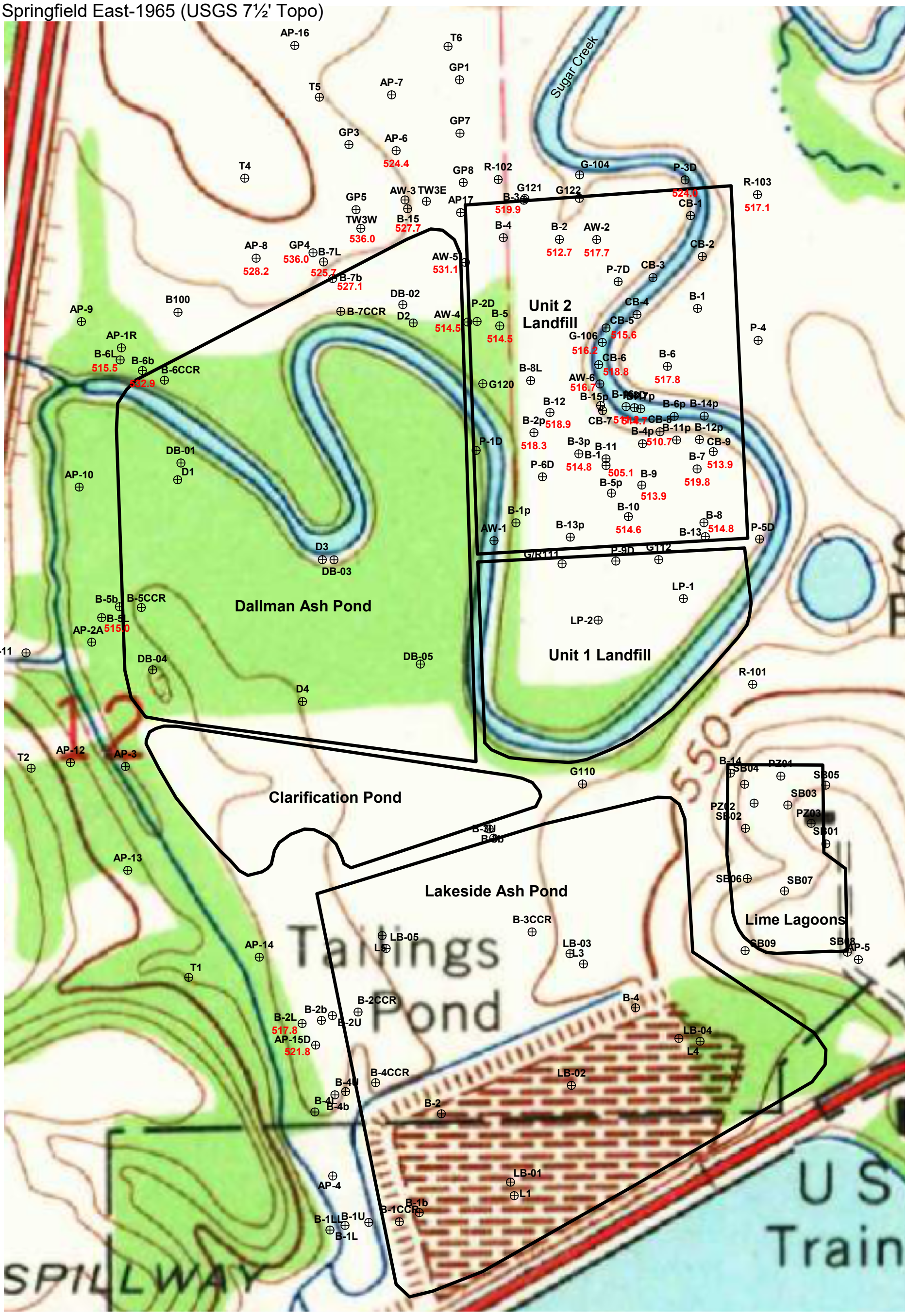
A Nature and Extent Report was completed in 2025 for the Appendix IV parameters that exceeded the Statistically Significant Levels (SSLs) for Arsenic and Cobalt. An Addendum to the Nature and Extent Report was completed in 2026. Arsenic exceedances were observed above the SSL at AW-1, RW-3, AP-7, and AP-8. Cobalt exceedances were observed above the SSL at AP2A and AP-3. CWLP is continuing to treat the SSLs as impacts from the DAP and is continuing assessment monitoring which is not anticipated to affect the proposed closure of the two (2) surface impoundments. The complete September 2025 Nature and Extent Report (AEI, 2025c) which includes a Flow Path Report as Appendix J (AEI, 2025c) is in Appendix B of this document. A recent Addendum to the Nature and Extent Report (AEI, 2026), addressing the potential contaminant migration pathways with an updated hydrogeological conceptual site model, is in Appendix C.

6. Evaluation of Abandoned Creek [Attachment 1, Item 3]

A portion of the abandoned Sugar Creek exists north of Unit 2 Landfill. The creek bed has an elevation of approximately 523 ft. Borings in Unit 2 have pre-construction Shallow Sand Unit elevations between 524 to 514 ft. The floor of Dallman Ash Pond generally ranges from approximately 525 to 522 ft., which is below the elevation of the sand seam adjacent to the north side of Dallman (536 to 524 ft.). See Figure 2 for borings and Shallow Sand elevations relative to the pre-relocated Sugar Creek. The Nature and Extent Report indicates in Section 3.2 that remnants of the original Sugar Creek channel or engineered fill materials in the channel could act as a potential migration pathway for contaminants.

Figure 2 also shows the preconstruction elevations within the DAP footprint (USGS, 1965). Note that the 530 ft. contour hugs the shoreline of Sugar Creek. With the post-construction elevation of the DAP floor being 5 to 7 ft. below the pre-construction topography, Hanson believes that the abandoned sections of Sugar Creek within the DAP footprint were removed during construction. This is supported by the borings in DAP (D1, D2, D3, D4, DB01, DB02, DB03, DB04, and DB05 along with AW-1 that shows fill materials above elevation 529.25 ft. and Lower Cohesive Unit clayey silts below.

Springfield East-1965 (USGS 7½' Topo)



SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

Topography contour interval = 10 feet

Red elevations indicates the top of the Shallow Sand Unit at that boring location.

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Shallow Sand Unit relative to Sugar Creek

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HANSON NO. 25E0006.00 FIGURE NO. 2

7. Groundwater Elevation Data [Attachment 1, Item 4]

Figure 1 shows the relationship between the potentiometric surface of the Basal Sand Unit (for 28 March 2025), the top elevation of the Basal Sand Unit, the floor of the impoundments, and the water surfaces inside each impoundment. From this figure it can be determined that:

1. There is separation between the top of the Basal Sand Unit (which is also the water level within the Basal Sand Unit) and the floor of each impoundment (greater than 5 feet).
2. The Basal Sand Unit is a confined aquifer (measured water level consists of the thickness of the aquifer plus a pressure component of head).
3. Groundwater flows from the upland area where the Lime Lagoons are located and discharges toward Sugar Creek to the west and northwest.
4. The water level in the Dallman Ash Pond is higher than in the Clarification Pond, which indicates that there is limited connection between the two (2) water bodies.
5. Removal of the free water in the Dallman Ash Pond should reduce the likelihood of seepage out of the impoundment and could potentially provide an inward gradient (groundwater moving into the impoundment).

8. Contaminant Transport Control [Attachment 1, Item 5]

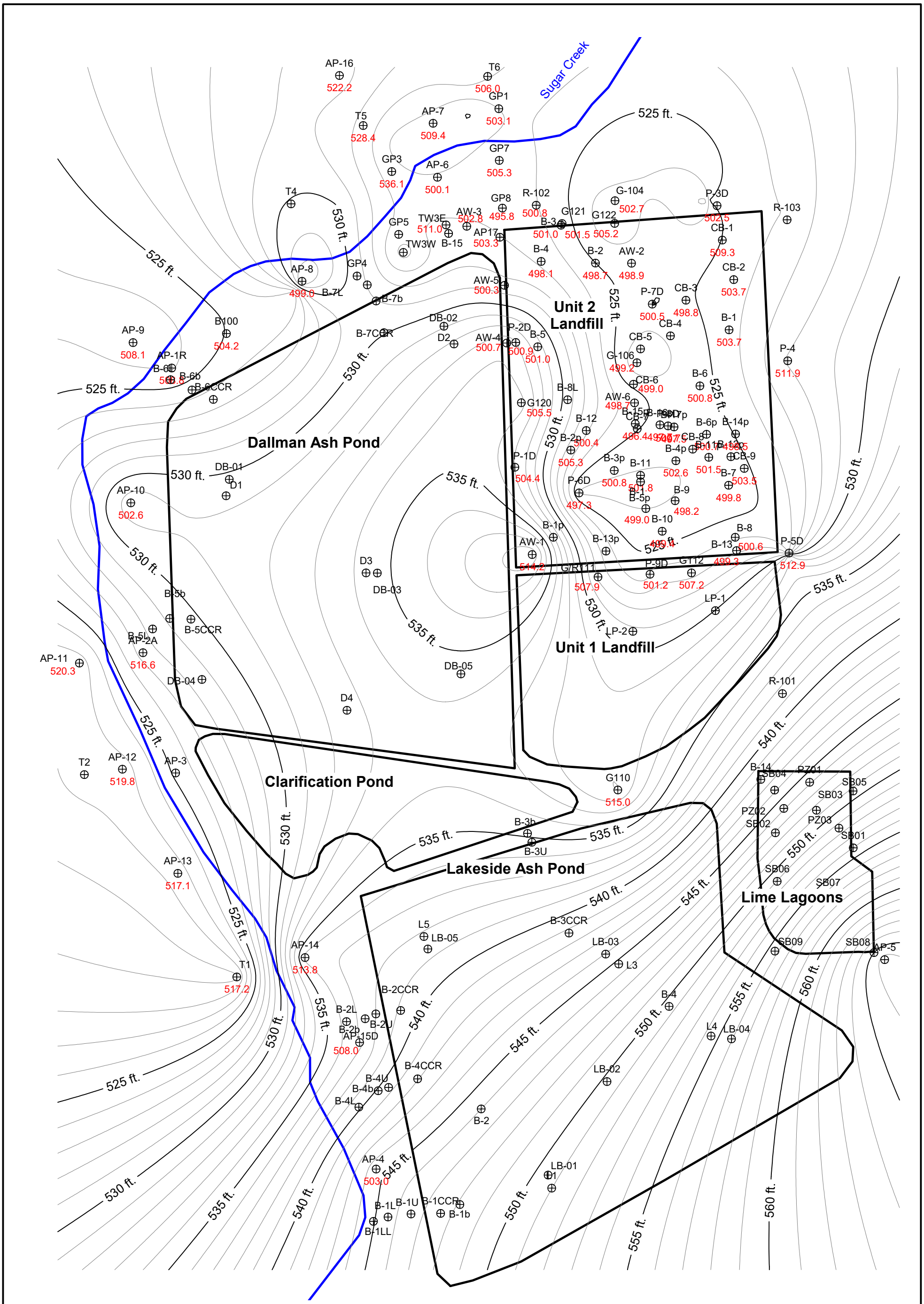
CCR is not anticipated to be in contact with groundwater, now or after closure. The Basal Sand Unit is a confined aquifer, and the Lower Cohesive Unit separates the CCR from the Basal Sand Unit.

The potentiometric surface water levels should not be confused with those of a phreatic water surface or water table. The phreatic water surface shows the elevation where the groundwater is at one atmosphere pressure. Conversely, the pressure component of the potentiometric surface can be multiple time the one atmosphere pressure observed in a phreatic surface. That is why the water level observed in a well that penetrates a confined aquifer is always above the top of the aquifer or is in an artesian condition.

The Nature and Extent Report (see Section 3.3). concludes that migration of Appendix IV parameters, arsenic and cobalt, could migrate through the low hydraulic conductivity deposits of the Lower Confining Unit due to the vertical downward gradient created by the impounded water within LAP and DAP coupled with the over 5 decades of time since the CCR Units were put into service.

9. Remedy Feasibility [40 C.F.R. §§ 257.96(c), Attachment 1, Item 6]

Several remedies are presented below that outline the feasibility and practicality of the various closure options. These include discussions of performance, implementation, implementation time, and potential impacts and exposures for each remedy. Note that permitting requirements and timing to receive permits are not included in the time proposed for each closure remedy. Illinois Environmental Protection Agency (IEPA) must review and approve any Construction Permit application pursuant to 35 IAC 845.220. The dewatering wells will remain in place after placement of the final cover system.



Water levels measured on 24 September 2026.

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SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

Red elevations indicates the top of the Basal Sand Unit at that boring location.

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Groundwater Surface of the Basal Sand Unit

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HANSON NO. 25E0006.00 FIGURE NO. 3

Dewatering will need to be completed for almost all the remedies listed. This is needed to meet regulatory requirements and to identify settlement as the CCR dewaters. This will allow adjustments to maintain positive drainage on the final cover slopes. Hanson has estimated the times to dewater each ash pond, with DAP needing approximately 140 days and LAP needing approximately 360 days to dewater. These timeframes are based on the anti-degradation study done as part of the National Pollutant Discharge Elimination System (NPDES) permitting process.

Dewatering will be accomplished using ten (10) wells installed in DAP with locations identified on the plans in Appendix G. Dewatering wells, dewatering piezometers, discharge structures, and pump requirements are included in the plan set. Once dewatered, DAP will have decreased ability to have contaminants migrate to the Shallow Sand and Basal Sand Aquifers.

Dewaters will be sent to the Clarification Pond where they will be treated to lower the pH and then discharged at Outfall 004. An NPDES permit modification was approved by Illinois EPA on February 25, 2026 allowing the discharge of CCR contact waters. The dewatering wells will remain in place after placement of the final cover system and will be utilized after closure, if necessary.

Hanson is surprised by how much water remains within the LAP CCR, based on lab testing performed on samples from DAP and LAP. Table 1 lists the sample boring and depth followed by the tested parameters and results for the various CCR samples. The water treatment plant sludge samples are included for reference.

Table 1. Physical Properties of CWLP CCR

Sample Boring/Depth	Bulk Density (gm/cc)	Bulk Density (lb/cu ft)	Particle Density (gm/cc)	Porosity (%)	Field Capacity (%)	Wilting Point (%)
Water Treatment Plant						
Water Treatment Sludge	0.533	33.29		78.27	79.2	40.27
Lime Lagoon Sludge	0.723	45.15	2.03	73.33	64.2	25.27
Dallman Ash Pond						
DB01 9.5-11.0	1.04	64.92	2.20	52.6	37.3	6.5
DB02 17.0-18.5	0.93	58.05	2.11	55.9	41.9	6.9
DB03 22.0-23.5	0.97	60.55	2.21	55.9	39.1	6.0
DB04 2.0- 3.5	1.40	87.39	2.50	44.0	18.2	3.9
DB05 14.5-16.0	1.02	63.67	2.15	52.7	40.0	6.9
Lakeside Ash Pond						
LB01 24.5-26.0	0.72	44.94	2.46	70.6	60.0	19.9
LB02 12.0-13.5	1.35	84.27	2.54	46.8	11.1	4.2
LB03 19.5-21.0	0.79	49.31	2.16	63.2	53.0	9.9
LB04 12.0-13.5	0.84	52.43	2.25	62.8	49.9	9.0
LB05 19.5-21.0	0.73	45.57	2.24	67.5	60.6	11.0

Source: Agvice Laboratories, Northwood, ND

The important properties listed in Table 1 are Porosity and Field Capacity. Porosity identifies how much water the CCR can hold (as a percentage). Field Capacity is defined as "the amount of water held in soil after the gravitational water has drained away." (Foth & Turk, 1972). There is a noticeable difference between the DAP CCR versus the LAP CCR. DAP porosities generally range from the low- to mid-50%,

whereas the LAP porosities generally range from the low-60% to low-70%. That ability to contain water is also seen in the Field Capacities (FC). DAP FCs range from the mid-30% to low-40% and LAP FCs range from the low-50% to the low-60%. The FC percentages are an indication of the volume of water that is retained within the CCR after it has been dewatered. Therefore, the volume of water removed is only the portion of the total water within the CCR that can be removed by gravity drainage.

9.1 Closure Alternatives

The closure alternative remedies discuss the final disposition of the CCR in the DAP and LAP. These alternatives look at whether the CCR remains or if it is removed. Either of these remedies can meet the requirements of 40 CFR 257.97(b).

Remedies comply with 40 CFR 257.97(b) and are protective of human health and the environment because the CCR is moved to another location or dewatered and covered in place. Attaining the groundwater protection standards may require the use of one or more of the ancillary alterative listed in Section 9.2. Controlling the source(s) of release is controlled by dewatering and final cover systems. Removal of contaminated materials, again, would be done with one or more of the ancillary alternatives listed in Section 9.2. All wastes, either moved or retained on site will be managed following applicable RCRA requirements.

The various remedies below address the need for dewatering the CCR, the time the closure activities will take, any implementation issues, and health/safety concerns.

9.1.1 Closure-In-Place

Closure-in-Place will require placing final cover on both the DAP and LAP. This can be done with a conventional final cover system consisting of 40 mil HDPE or LLDPE covered with 3 feet of soil [per 35 IAC 845.750(c)[†]] or an acceptable substitute, such as ClosureTurf®. ClosureTurf® is a patented, three component system comprised of a structured geomembrane, an engineered turf, and a specified aggregate infill. The Hutsonville Power Station Ash Ponds were closed using a conventional final cover system as defined in 35 IAC 840.126. One of the Meredosia Power Station Ash Ponds was closed using the ClosureTurf® system.

Conventional final cover will require grading of the CCR surface to promote positive drainage, placement of 40-mil HDPE or LLDPE geomembrane along with welding the geomembrane panels together and bringing sufficient soil on-site to cover both ash ponds (approximately 350,000 cu. yds.). It will also require equipment to handle and place the cover soil over the geomembrane. Using the ClosureTurf® system would not require placement of 3 feet of protective soil, and therefore reduces the time needed to place final cover.

9.1.1.1 Timeframe

Dewatering, grading, and placement of a conventional final cover system on both ash ponds should require approximately 2 to 2.5 years to complete for a conventional cover system. The ClosureTurf® system should only need the time to dewater, grade the CCR for positive drainage, placement and welding of the

[†] The Illinois CCR Rules [35 IAC 845.750(c)] for final cover requires 3 feet of low permeability material versus the 18 inches required by 40 CFR 257.102(d)(3). Closure activities will need to be performed following the Illinois CCR Rules.

geomembrane, placement of the engineered turf, and addition of the aggregate infill material. This should reduce the time to 1.25 to 1.75 years.

Note that these timeframes do not take into consideration the amount of time the Illinois EPA will need to complete review of the construction permit application and issue a final permit.

9.1.1.2 Implementation

Closure-in-Place should be straight forward. Grading of the CCR for positive drainage is traditional earthwork and installation of the dewatering wells and associated pipe and electrical work is also non-complex. The major difference in the two (2) final cover systems is the volume of protective soil needed for the conventional final cover, hence the need for the additional 0.75 years to place this material.

9.1.1.3 Performance

Closure-in-Place will have several performance-based solutions to retard/restrict migration of contaminants to the environment. These solutions include dewatering systems to reduce free water in the impoundments during and after closure, contouring the CCR to provide positive drainage, and installation of a final cover system compliant with 40 CFR 257.102(d).

9.1.1.4 Safety and Health Impacts

The greatest potential safety and health issue is fugitive dust. Running equipment over the CCR could dry the material and allow it to become airborne. Keeping the CCR moist would reduce the ability of the CCR to be transported by wind. Tracking CCR offsite should not be an issue for the Closure-in-Place scenario as truck traffic is going to be limited to bringing in soil from off site, and trucks will typically not be running over the CCR surface.

9.1.1.5 Best Management Practices

Best management practices (BMPs) will be used to mitigate potential safety and health risks. These include items like watering roadways, keeping the working CCR areas moist, and avoiding tracking CCR on interior and public roads.

9.1.1.6 Feasibility

Closing both ash ponds in place is feasible, but there are disadvantages over some of the other closure alternatives. Grading, dewatering, and final cover construction for both DAP and LAP will be more time-consuming than other alternatives. Fugitive dust from both units would also add additional health and safety risks.

9.1.2 Removal of CCR for Beneficial Use

Utilizing CCR for projects in Illinois presents both potential advantages and significant risks. Economically, using CCR as a fill material *can* be significantly cheaper than transporting conventional materials, particularly if sourced to a nearby location. This practice would also reduce or eliminate the expenses associated with closing and maintaining dedicated CCR landfills and/or impoundments.

The Illinois Environmental Protection Act (ICS, 2023) provides the following definition for beneficial use of Coal Combustion By-products (CCB) in Section 3.135:

415 Ill. Comp. Stat. 5/3.135 (2023)
Sec. 3.135. Coal combustion by-product; CCB.
(a) "Coal combustion by-product" (CCB) means coal combustion waste when used beneficially in any of the following ways:
(1) The extraction or recovery of material compounds contained within CCB.
(2) The use of CCB as a raw ingredient or mineral filler in the manufacture of the following commercial products: cement; concrete and concrete mortars; cementious products including block, pipe and precast/prestressed components; asphalt or cementious roofing products; plastic products including pipes and fittings; paints and metal alloys; kiln fired products including bricks, blocks, and tiles; abrasive media; gypsum wallboard; asphaltic concrete, or asphalt based paving material.
(3) CCB used (A) in accordance with the Illinois Department of Transportation ("IDOT") standard specifications and subsection (a-5) of this Section or (B) under the approval of the Department of Transportation for IDOT projects.
(4) Bottom ash used as antiskid material, athletic tracks, or foot paths.
(5) Use in the stabilization or modification of soils providing the CCB meets the IDOT specifications for soil modifiers.
(6) CCB used as a functionally equivalent substitute for agricultural lime as a soil conditioner.
(6.5) CCB that is a synthetic gypsum that:
(A) has a calcium sulfate dihydrate content greater than 90%, by dry weight, and is generated by the lime or limestone forced oxidation process;
(B) is registered with the Illinois Department of Agriculture as a fertilizer or soil amendment and is used as a fertilizer or soil amendment;
(C) is a functionally equivalent substitute for mined gypsum (calcium sulfate dihydrate) used as a fertilizer or soil amendment;
(D) is used in accordance with, and applied at a rate consistent with, documented recommendations of a qualified agricultural professional or institution, including, but not limited to any of the following: certified crop adviser, agronomist, university researcher, federal Natural Resources Conservation Service Conservation Practice Standard regarding the amendment of soil properties with gypsum, or State-approved nutrient management plan; but in no case is applied at a rate greater than 5 dry tons per acre per year; and
(E) has not been mixed with any waste.
(7) Bottom ash used in non-IDOT pavement sub-base or base, pipe bedding, or foundation backfill.
(8) Structural fill, designed and constructed according to ASTM standard E2277-03 or Illinois Department of Transportation specifications[‡], when used in an engineered application or combined with cement, sand, or water to produce a controlled strength fill material and covered with 12 inches of soil unless infiltration is prevented by the material itself or other cover material.
(9) Mine subsidence, mine fire control, mine sealing, and mine reclamation.

[‡] The combination of all known transportation projects in the area requires less than CWLP's volume of CCR available beneficial use.

The greatest issue with beneficial use is the opportunity to have a destination in need of a great volume of CCR at any given time. CWLP is continuing to investigate opportunities for beneficial reuse of CCR.

9.1.2.1 Timeframe

With approximately 2,782,000 cu. yd. of CCR and other materials in DAP and LAP, using the CCR for beneficial use in finite volumes would require multiple years for all the CCR to be removed. A review of all current and planned major transportation related projects over the span of the next 10 years would not require the amount of material available. Items 8 and 9 in the CCB Beneficial Use definition are the two most likely ways to use most, if not all, the CCR at CWLP.

9.1.2.2 Implementation

Removing the CWLP CCR would require finding either a large Illinois Department of Transportation construction project or getting a permit from Illinois Department of Natural Resources, Mines and Minerals for use at mine sites.

9.1.2.3 Performance

Removal of CCR eliminates the likelihood of any further CCR contamination impacting groundwater.

9.1.2.4 Safety and Health Impacts

Fugitive dust would be an issue as equipment and trucks move over the CCR. Keeping the CCR moist could reduce the ability of the CCR to be transported by wind.

Tracking CCR offsite becomes an issue for any beneficial use scenario. Limiting truck traffic on the CCR may not be practical for loading and moving the CCR off site. Additionally, tracking the CCR onto public roads becomes a BMP issue.

Traffic accidents and driver errors could also cause CCR spills on the way to the beneficial use location.

9.1.2.5 Best Management Practices

Best management practices (BMPs) will be used to mitigate potential safety and health risks. These include items like watering roadways, keeping the working CCR areas moist, and using tire wash stations to prevent tracking CCR on interior and public roads.

9.1.2.6 Feasibility

Beneficial use of the CCR is likely the least feasible of the closure alternatives. The limited IDOT or mine reclamation projects are the limiting factor. Additional health and safety issues, including tracking CCR on public roads and the potential for trucking accidents, add to limiting the feasibility of this option.

9.1.3 Closure-By-Removal to Another Disposal Unit

Closure-by-Removal to another disposal unit would remove any CCR and other impacted materials from both the DAP and LAP. Removal could not take place until both ash ponds were dewatered. As noted in Section 9, dewatering LAP will take almost one (1) year and Table 1 indicates that LAP CCR will still retain a significant volume of water even after dewatering. Additionally, the ash ponds would remain in an open condition and continue to receive precipitation that would need to be managed during removal.

The Closure Plan for the Unit 2 Landfill was updated in July 2025 (AEI, 2025a). It only discusses closure of the 3-acre active area, and not the entire footprint of Unit 2 Landfill. Note that the Closure Plan describes a net, in place disposal capacity of 1,162,275 cu. yds., which is less than half the combined volumes of DAP and LAP.

Under the Illinois Landfill Rules (35 IAC 810-814), waste streams must show that they contain no characteristic hazardous materials and pass a paint filter test. With the high field capacity values identified in Table 1 it is problematic that the wastes could pass the paint filter test in a gravity drained condition.

Additionally, US EPA was informed by correspondence dated 7 May 2024 from ArentFox Schiff LLC that CWLP has no plans for expansion beyond the current footprint of the active area of Phase I of Cell 3.

9.1.3.1 Timeframe

Hanson estimates that both ash ponds contain approximately 2,782,000 cu. yd. of CCR and other materials. This would require approximately 111,000 truckloads (at 25 cu. yd. per truck). Running 9.5 hours[§] a day Monday through Friday, assuming 50 trucks per day entering and exiting the facility, DAP and LAP could have all the CCR removed in approximately 9.0 years.

Note that this time estimate does not include time that may be needed to permit and construct a new disposal facility through Illinois EPA, Bureau of Land. In the past, this process has required anywhere from 2.5 to 4 years. The Environmental Protection Act (ICS, 2023) allows the Bureau of Land to take up to 180 days to review a new landfill permit application. Several rounds of review comments and responses add to the time before a permit can be issued.

Once the landfill permit is issued, construction of the disposal facility can begin. This construction could take up to one year. Total time for this option can range from 9.5 to 11.5 years. Note that the requirements of 25 IAC 845.700 could impact the timeframe of the ash ponds closure.

9.1.3.2 Implementation

It is possible to transport the CCR to an existing municipal solid waste landfill. Appendix D contains the 2023 landfill capacity information for the two central Illinois regions (Region 4 – East Central Illinois and Region 5 – West Central Illinois) that would be closest to the CWLP ash ponds. Although several landfills have capacity to take all the CWLP CCR, it will consume a large percentage of available air space or consume all available air space. It is unlikely that the landfills, their siting authorities, or the county will

[§] Daily hours were reduced from 12 hours to 9.5 hours based on actual operating hours for several local municipal solid waste landfills. The truck count was also reduced due to the shorter operating hours.

allow for all the available air space (or even a significant portion) to be consumed if siting agreements have expectation of how long the landfill needs to have available capacity.

Note that the Illinois Solid Waste Planning and Recycling Act (SWPRA) is a State of Illinois Law (425 ILCS 15/) which requires that every county manages the solid wastes generated within its boundaries. This includes knowing the waste types generated over the next 20 years and time estimates for the development and operation of each proposed facility or program. This is where local authorities can restrict the volume of CCR that could be disposed at a given landfill if it affects the SWPRA.

9.1.3.3 Performance

Removal of CCR also eliminates the likelihood of any further CCR contamination impacting groundwater. However, removal to another disposal unit requires available air space and/or time to permit and construct another location.

9.1.3.4 Safety and Health Impacts

Fugitive dust would be an issue as equipment and trucks move over the CCR. Keeping the CCR moist could reduce the ability of the CCR to be transported by wind.

Tracking CCR offsite becomes an issue for any Closure-by-Removal scenario. Limiting truck traffic on the CCR may not be practical for loading and moving the CCR off site. Additionally, tracking the CCR onto public roads becomes a BMP issue.

Traffic accidents and driver errors could also cause CCR spills on the way to the disposal facility.

9.1.3.5 Best Management Practices

Best management practices (BMPs) will be used to mitigate potential safety and health risks. These include items like watering roadways, keeping the working CCR areas moist, and using tire wash stations to prevent tracking CCR on interior and public roads.

9.1.3.6 Feasibility

Moving the CCR to a new disposal site also has limited feasibility. The limited amount of current landfill airspace or the time needed to permit a new disposal site through Illinois EPA limits the desirability of this option. This also has the same health and safety concerns that the beneficial use option has.

9.1.4 Waste Consolidation

Consolidation of the waste material from LAP into DAP into one (1) facility offers several potential benefits.

1. A properly engineered facility can ensure a controlled environment for the long-term management of CCR waste material.
2. The consolidation effort will allow for improved containment and a dewatering system to limit the potential for groundwater contamination.
3. The design can better control issues such as berm failures and erosion by planning for and managing stormwater impacts at the site.

4. Consolidating LAP will expose the downstream side of Spalding Dam and allow for better evaluation of potential hazards during dam inspections.
5. Consolidation of the waste would simplify the long-term monitoring of groundwater, unwaters/dewaters, and ongoing maintenance due to a reduced footprint.

Challenges associated with the waste consolidation will not be inconsequential. Care will need to be taken to move a large amount of material in a safe and environmentally responsible manner. The LAP CCR would not be dewatered before being moved. The wetter nature of the CCR will facilitate moving it to DAP more efficiently and allow it to dewater in geotextile tubes. This long-term management would include continued operation of the dewatering system to reduce the potential for contaminant migration from the DAP.

Once the LAP CCR is consolidated at DAP, a final cover system will be placed to prevent infiltration and accumulation of contact waters within the DAP footprint. The closure options are the same as described in Section 9.1.1. Concept drawings consolidating LAP to DAP are shown in Appendix G. Additionally, once the LAP CCR is removed, soil sampling within the former LAP footprint will be performed to verify that contaminated soils do not exist within the LAP footprint.

9.1.4.1 Timeframe

Consolidation would begin by dewatering DAP, which should take about 150 days. Once DAP is dewatered and settlement begins, material at LAP can begin to be sluiced and stored in geotextile bags. The sluiced and bagged CCR would then be dewatered at DAP. Sluicing the LAP CCR and bagging the material will take 1 year (10-hour workdays, 5 days/week with 2 pumps at 3,000 gpm). Dewatering and settlement will take another 3-6 months. Additional earthwork to prepare for final cover and final cover placement will be another 6 months. Total time to consolidate LAP to DAP will take a total of 2 to 2.5 years.

9.1.4.2 Implementation

Grading of the DAP CCR to be able to place the geotextile bags and installation of the dewatering wells and associated pipe and electrical work is not a complex construction process. Filling the geotextile bags will require some coordination at DAP to make the process efficient. Care will need to be taken in backfilling over the geotextile bags to create a smooth surface for the final cover system without damaging the geotextile bags.

9.1.4.3 Performance

Consolidation will have similar performance goals as the Close-in-Place alternative for DAP and closure by removal for LAP. Consolidation will also retard/restrict migration of contaminants to the environment. These solutions include the dewatering system to reduce free water in the impoundments during and after closure, contouring the CCR to provide positive drainage, reducing the footprint of the impoundment, and installation of a final cover system compliant with 40 CFR 257.102(d).

9.1.4.4 Safety and Health Impacts

Fugitive dust will likely only be an issue during the DAP grading process. A combination of hauling the dryer CCR materials and sluicing the wet CCR will be used to move the LAP CCR to DAP. There should not be any offsite tracking of CCR in this Consolidation scenario.

9.1.4.5 Best Management Practices

Best management practices (BMPs) will be used to mitigate potential safety and health risks. These include items like watering roadways, keeping the working CCR areas moist, and avoiding tracking CCR on interior and public roads. Additional care will need to be provided while CCR is being sluiced to avoid discharges of the sluiced CCR and sluice lines becoming disconnected from the geotextile bags.

9.1.4.6 Feasibility

Waste consolidation is likely the most feasible alternative available. Benefits include reducing the waste footprint, all work is performed on site, and sluicing the LAP CCR helps reduce the fugitive dust issue. The amount of time to complete closure is no worse than any of the other alternatives.

9.2 Ancillary Alternatives

This ancillary alternative section discusses additional mitigation/remediation alternatives that could be used in conjunction with a final cover system or CCR removal.

9.2.1 Cut-off Wall

An alternative that could be utilized with many of the listed (non-removal) remedies is a cut-off wall surrounding either or both CWLP ash ponds. The slurry wall would be constructed along the inside edge of the ash pond berm using traditional excavation equipment. The excavation would be flooded with bentonite slurry, creating a barrier with low permeability, and the trench would be excavated and keyed into the shale bedrock beneath the Basal Sand Unit. The trench would surround the ash pond(s) and restrict the ability of contaminants to impact groundwater. The addition of the dewatering wells would prevent the buildup of precipitation within the footprint of the ash pond until a final cover system can be placed over the CCR.

9.2.1.1 40 CFR 257.97 Requirements

- Protective of human health and the environment – Yes, cut-off walls restrict the migration of contaminants and the movement of contaminated groundwater.
- Attain the GW protection standards – May require an additional alternative to meet the GW protection standards.
- Control the source(s) of releases – Yes, the cut-off wall restricts contaminant releases.
- Remove from the environment as much of the contaminated materials as possible – The cut-off wall will incase the contamination and prevent it from being released into the environment.
- Wastes shall be managed in a manner that complies with all applicable RCRA requirements – Yes, 40 CFR 257 meet the requirements for a RCRA Subtitle D waste disposal unit.

9.2.1.2 Performance

The cut-off wall is used to restrict migration of contaminant from a CCR impoundment to groundwater. The low permeability of the bentonite slurry combined with dewatering of the CCR reduces the flow of contaminants from inside the impoundment to the aquifer on the outside of the cut-off wall. Placement of

a final cover system compliant with 40 CFR 257.102(d) will restrict further infiltration of precipitation and preventing any further potential contaminant migration from the CCR unit.

9.2.1.3 Timeframe

Once dewatering of the CCR is completed, Hanson estimates that the cut-off wall could be constructed at each ash pond in less than 6 months excavating 30 to 50 linear feet of trench per day.

9.2.1.4 Implementation

The cut-off wall could be constructed any time before the placement of the final cover system.

9.2.1.5 Safety and Health Impacts

There should be nominal safety and health impacts to this alternative since the excavation is flooded with bentonite slurry and there would be nominal truck traffic moving around the Site. The excavated materials would be placed on the ash pond and graded for positive drainage.

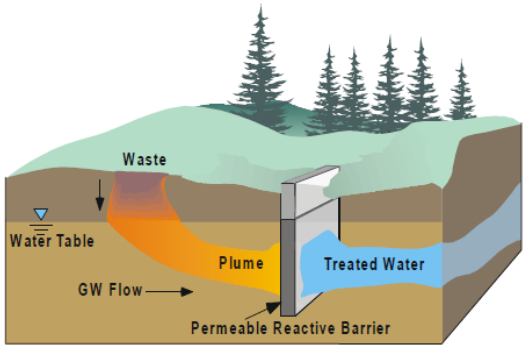
9.2.1.6 Best Management Practices

Best management practices (BMPs) are limited to working near the excavation and the in-place bentonite slurry. The slurry will remain soft even after placement, so pedestrian and vehicle traffic should be avoided. Access roads will need to be constructed at various locations around the ash pond to allow access to the ash pond interior.

9.2.1.7 Feasibility

Of the ancillary alternatives, the cut-off wall is one of the more feasible options. The bentonite slurry aids in keeping the excavation open, the excavation can double as the anchor trench for the final cover system, and it has a rather quick completion time. This has also been a time-tested solution to restrict contaminant migration.

9.2.2 Permeable Reactive Barriers



A Permeable Reactive Barrier (PRB) is an in-situ groundwater remediation technology that involves installing a reactive material within the subsurface to intercept a plume of contaminated groundwater. As the groundwater flows passively through the barrier under the existing hydraulic gradient, the contaminants are removed or transformed through physical, chemical, or biological processes. PRBs are particularly applicable in situations where a defined plume of dissolved contaminants is migrating in a predictable flow path within a permeable aquifer. They can be a cost-effective and sustainable solution for treating groundwater contamination downgradient of a source area, preventing further migration and reducing contaminant concentrations to acceptable levels without requiring continuous energy input for pumping and treating groundwater.

A PRB installed at the CCR impoundments would need to intersect the surrounding confined Basal Sand Unit, which varies in depth from 25 to 55 feet below the existing ground surface. Additionally, it would need to be designed to treat the Appendix IV constituents of concern (CoCs) found within DAP and with sufficient reactive material to provide for potential depletion over time to ensure reliable performance of the PRB.

Implementing a PRB within the confined Basal Sand Unit at a depth of 25 to 55 feet presents considerable challenges. Installation via trenching or injection carries the risk of creating preferential flow pathways to the aquifer. Furthermore, ensuring complete and continuous interception of the <1.0 to 18.5 feet thick aquifer at this depth to effectively capture all contaminant movement may be technically difficult, potentially rendering the PRB an unreliable remedy.

9.2.2.1 40 CFR 257.97 Requirements

- Protective of human health and the environment – Yes, PRBs remove contaminants from groundwater.
- Attain the GW protection standards – Good for removing trace metals and various organic compounds. Not well suited for cation removal.
- Control the source(s) of releases – No, PRBs do not control releases, they treat groundwater.
- Remove from the environment as much of the contaminated materials as possible – No, the contaminated materials are retained within the reactive materials.
- Wastes shall be managed in a manner that complies with all applicable RCRA requirements – Yes, 40 CFR 257 meet the requirements for a RCRA Subtitle D waste disposal unit.

9.2.2.2 Timeframe

Installation time for a PRB should be similar to the installation of the Cutoff Wall (<6 months). However, the Cut-off Wall is a long-term solution for the impacted groundwater.

9.2.2.3 Implementation

The PRB could be constructed any time before the placement of the final cover system. Several references cite heavy metal cleanup with PRB (Blowes et al., 2000, Hashim et al., 2011). Blowes et al. (2000) lists several inorganic parameters that have treatment potential and cites small scale field testing for Cd, Cr, Cu, Fe, Ni, Pb, NO_3, PO_4, and SO_4. Ahn et al. (2003) indicated that steel manufacturing byproducts could remove high concentrations of Arsenic (25 mg/L) in bench tests. Powell et al. (1998) listed Cobalt as removable via PRB.

Excavating the trench for the installation of the reactive materials could be difficult. Removing the Basal Sand Unit without a slurry to keep the trench open will be problematic at the depths observed around the ash ponds.

9.2.2.4 Performance

Although PRBs have been shown to be an effective remediation technology for organic contaminants, the effective treatment of many CCR parameters is unknown. While zero valent iron treatment is effective for several metals, including Arsenic, Chromium, and Selenium, there is no indication of its effectiveness for

other CCR parameters, like Boron, Chloride, and many of the Appendix IV metals (ITRC, 2011). This coupled with the depths that must be reached at DAP and LAP would preclude this alternative from being an effective solution.

9.2.2.5 Safety and Health Impacts

There should be nominal safety and health impacts to this alternative since the excavation is backfilled with reactive material and there would be nominal truck traffic moving around the Site. The excavated materials would be placed on the ash pond and graded for positive drainage. However, care will be needed to ensure that the reactive material does not pose a human health hazard.

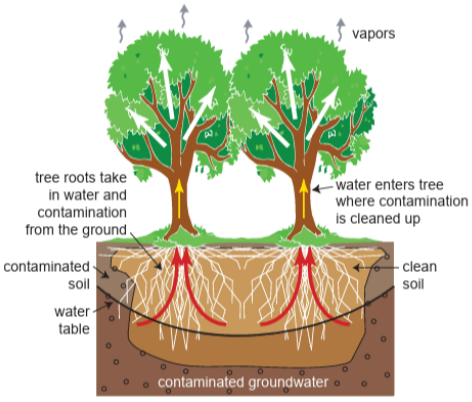
9.2.2.6 Best Management Practices

Best management practices (BMPs) are limited to working near the excavation and the in-place reactive material. Access roads may need to be constructed at various locations around the ash pond to allow access to the ash pond interior.

9.2.2.7 Feasibility

A PRB is one of the less feasible ancillary alternatives available. Of greatest concern is the excavation of the aquifer material at the depth found on site and being able to replace the aquifer with the reactive barrier materials.

9.2.3 Phytoremediation



Phytoremediation is an in-situ remediation technology that utilizes the natural abilities of plants to remove, stabilize, or transform contaminants in soil, sediment, and water. Through various mechanisms such as uptake, accumulation, degradation, and immobilization, carefully selected plant species can help to mitigate the environmental impact of pollutants.

However, the depth to groundwater at the site makes the use of phytoremediation problematic. Phytoremediation is generally not effective for all CCR constituents, which would possibly necessitate the use of additional remediation techniques. Additionally, many plant species in our climate zone go dormant during the fall and winter months, making them ineffective for year-round groundwater cleanup. The depth of the aquifer, in conjunction with the time required for root systems to reach the aquifer, combined with the climate, effectively precludes phytoremediation as an effective remediation technique for the DAP.

9.2.3.1 40 CFR 257.97 Requirements

- Protective of human health and the environment – Yes, Phytoremediation can remove contaminants from groundwater, but at CWLPs aquifer depth it can be problematic.
- Attain the GW protection standards – Possibly, but with a dormant winter season it would not be year-round effective.

- Control the source(s) of releases – No, Phytoremediation does not control releases, it treat groundwater.
- Remove from the environment as much of the contaminated materials as possible – No, the contaminated materials are retained within the treatment plants.
- Wastes shall be managed in a manner that complies with all applicable RCRA requirements – Yes, 40 CFR 257 meet the requirements for a RCRA Subtitle D waste disposal unit.

9.2.3.2 Timeframe

Planting the appropriate plant species should be a relatively short timeframe (<6 months). However, the time needed for the plants to mature and become effective would take several years.

9.2.3.3 Implementation

Phytoremediation could be constructed any time before the placement of the final cover system and could be implemented in a short timeframe. It is also likely that Phytoremediation will not be effective against several of the CCR parameter, including Boron, Chloride, and Sulfate. Having the Phytoremediation system active for only part of the year also makes the system problematic.

9.2.3.4 Performance

Phytoremediation can assist in remediation of certain contaminants. However, this remediation technique is a near-surface process, whereby the plants take up groundwater and contaminants leaving behind clean soil. This type of remediation would potentially require a large amount of space, which does not exist where Sugar Creek and DAP and LAP are located. This area is also prone to flooding when water needs to be released from Lake Springfield.

Additionally, the CCR parameters would likely require multiple species to remediate all the potential contamination (if possible). Plants that absorb the contamination would also need to be properly managed to prevent re-introduction of the contaminants back into the environment. Also, due to the depth of the BSU, this treatment system would need to be coupled with an extraction system to get the contaminated groundwater closer to the surface for treatment.

9.2.3.5 Safety and Health Impacts

There should be nominal safety and health impacts to this alternative, since it only requires the planting of appropriate plant species.

9.2.3.6 Best Management Practices

Best management practices (BMPs) would be nominal. The most important practice would be to keep undesirable plant species out of the remediation area to prevent reduced uptake of the contaminants or crowding out of the desired plant species.

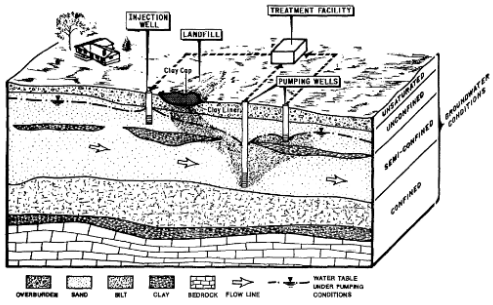
9.2.3.7 Feasibility

Phytoremediation is also a less feasible alternative than other presented alternatives. The biggest drawback is the depth of the uppermost aquifer and the ability of the vegetation to reach the 40-50-foot

depths needed to implement this alternative. The climate in central Illinois also limits phytoremediation because of vegetation dormancy in the late fall and winter.

9.2.4 Pump and Treat

Pump and Treat (P&T) involves the extraction of contaminated groundwater from the subsurface using a system of wells or drains, followed by ex-situ treatment of the extracted water to remove the targeted contaminants. The treated water may then be discharged to surface water, a publicly owned treatment works, or reinjected back into the aquifer. P&T aims to hydraulically control the migration of contaminated groundwater and reduce contaminant mass in the aquifer over time through continuous extraction and treatment.



Extraction wells would be installed downgradient of the DAP where the contaminants would be removed from the extracted groundwater via treatment (precipitation, coagulation/flocculation, sedimentation, filtration, ion exchange, reverse osmosis, or activated carbon). Treatability of Arsenic is well documented in Kanel et al. (2023). Cobalt can also be removed from groundwater. Treatment processes include chemical precipitation (using hydroxides), ion exchange (using exchange resins), and membrane filtration (using reverse osmosis (RO)). Other treatment options are also available, but may be less effective (Lenntech, 2025).

Risks involved with P&T would be the possibility of pumping within the Basal Sand Unit drawing groundwater from the DAP, through the Lower Cohesive Unit, and further leaching additional contaminants into the aquifer. Additionally, treatment of the groundwater can result in new solid wastes that require disposal. P&T primarily addresses dissolved contaminants, and there is a potential for residual contamination sorbed to the aquifer matrix to slowly desorb resulting in the rebound of contaminant concentrations.

9.2.4.1 40 CFR 257.97 Requirements

- Protective of human health and the environment – Yes, P&T restrict the migration of contaminants and the movement of contaminated groundwater..
- Attain the GW protection standards – Yes, with the proper treatment system the P&T system should allow groundwater to meet the relevant standards.
- Control the source(s) of releases – No, P&T does not control releases, it treats groundwater. However, in conjunction with another alternative (i.e., cut-off wall) which would control releases.
- Remove from the environment as much of the contaminated materials as possible – Yes, the contaminated materials are removed by the treatment system for disposal at permitted facility.
- Wastes shall be managed in a manner that complies with all applicable RCRA requirements – Yes, 40 CFR 257 meet the requirements for a RCRA Subtitle D waste disposal unit.

9.2.4.2 Timeframe

Installation of the extraction wells, construction of the header system and electrical layout, and the installation of the necessary treatment devices should take approximately 6 to 8 months. The P & T system would operate until the concentrations of Arsenic and Cobalt were below the groundwater protection standards.

9.2.4.3 Implementation

Some initial study would be necessary to determine the appropriate spacing of the P&T extraction wells along with designing the header system, the electrical layout, and designing the size and type of remediation treatment system(s). Long-term use of the P&T will require normal maintenance and disposal of any accumulation of treatment sludges or wastes.

9.2.4.4 Performance

A Pump and Treat system will need to address the depths necessary to reach the BSU (25 to 55 feet). A french drain system would be impractical to install at depth, so wells will be needed to remove impacted groundwater. Treatment of many of the Appendix IV parameters should be straight forward, but many of the treatment methods generate a waste stream that must be properly disposed (e.g., precipitation, RO, etc.).

9.2.4.5 Safety and Health Impacts

There should be nominal safety and health impacts to this alternative, but some of the treatment sludges and wastes could have adverse health impacts. Proper personal protective equipment (PPE) could be needed when personnel are exposed to these waste products.

9.2.4.6 Best Management Practices

Best management practices (BMPs) should be limited to the use of PPE when performing regular maintenance on the P&T equipment.

9.2.4.7 Feasibility

Pump and treat could be a feasible alternative, but there are two issues that could impact feasibility. These issues include the long-term need to pump groundwater to reach the necessary concentrations and the need to regenerate treatment resins or dispose of treatment sludges.

10. Nature and Estimated Quantity of Material Released [Attachment 1, Item 7]

No CCR material has been released from Dallman or Lakeside Ash Ponds. The estimated quantity of constituents that have potentially been released to groundwater is discussed in the 2026 Addendum to the Nature and Extent Report provided in Appendix C.

11. Natural Attenuation [Attachment 1, Item 8]

Natural Attenuation or Monitored Natural Attenuation uses several processes to remove or aid in removal of contaminants migrating in groundwater. The processes of natural attenuation include biodegradation, chemical reactions, dilution, evaporation, and sorption.

Several of these processes will not be successful in cleaning up CCR impacted groundwater. Biodegradation, chemical reactions, and sorption require that the cation or anion impacting groundwater can interact with whatever exists in the soil/groundwater system or with some other additives used to attenuate the migration of the CCR contaminant(s). Evaporation can work with volatile compounds, but inorganic cations and anions will be left behind once the groundwater has evaporated and potentially dissolved back into the aquifer once additional fresh water is added to the system. Sorption and dilution

are the two most likely treatment options. Dilution simply requires sufficient fresh water input to the system to lower the concentrations of CCR parameters. Sorption can be a useful treatment method for several of the CCR metals, but the soil minerology needs to contain compounds to which the metal ions can bond and the appropriate Eh/pH conditions to allow the solid-phase components to precipitate.

Hanson does not recommend the use of natural attenuation for the ash pond closures. The distance from the ash ponds to Sugar Creek is small, reducing the volume of soil needed for such attenuation to occur.

12. Sugar Creek Flood Event and Ecological Risk [Attachment 1, Item 9]

A database check from the Illinois Department of Natural Resources Ecological Compliance Assessment Tool (EcoCAT) reported that only one protected species may be in the vicinity of the project location: Kirtland's Snake (*Clonophis kirtlandi*). The US Fish and Wildlife Service Information for Planning and Consultation (IPaC) listed the Indiana bat (*Myotis sodalist*) *as* endangered, and the eastern prairie fringed orchid (*Platanthera leucophaea*) as threatened.

A field visit was completed on April 16, 2025 to observe the conditions of Sugar Creek within the vicinity of the DAP and LAP. The Site visit determined that suitable habitat for the listed endangered and threatened species exist within and surrounding Sugar Creek. See Appendix F for Hanson's Habitat Assessment Memo, EcoCAT results and IPaC results.

Hanson has reviewed the Illinois Environmental Protection Agency (EPA) Integrated Water Quality Report and Section 303(d) List for several biennial reporting periods (2010-2026) as shown in Appendix H. The section of Sugar Creek (Assessment Unit ID IL_EOA-01) that flows past LAP and DAP has historically been impaired (2010-2024). However, the draft 2026 Report indicates that the subject section of Sugar Creek now fully supports aquatic life use and fully supports aesthetic quality use. As such, no additional investigations were deemed necessary.

To evaluate flood events along Sugar Creek, the velocity of the flood flows was compared to the permissible velocities of vegetative linings to represent the existing berms around the Dallman and Lakeside Ash Ponds. Fischenich (2001) was used to determine the permissible velocities of the existing vegetative cover. Table 2 (Fischenich, 2001) lists the Permissible Shear and Velocity for Selected Lining Materials, including vegetative turf covers. These turfs were separated into classes A, B and C. These classifications are described in "Design or Roadside Channels with Flexible Linings" (FHA, 2005). Table 4.1 provides vegetative species and coverage conditions to determine the retardance class of the cover system. These tables are included in Appendix F. Based on field observations of the existing vegetation along the Lakeside and Dallman berms, retardance class B was selected, providing permissible maximum velocities of between 4 and 7 ft/sec.

Hanson utilized the August 2, 2007 Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS) Number 17167CV000B for Sangamon County, Illinois for flood volume information. The document provided the 100-year peak discharge for Sugar Creek at Spaulding Dam of 27,800 cubic feet per second (CFS) at an elevation of 545 NAVD88. This data was based on topography of the project area that did not include the construction of the LAP or DAP, which incorrectly identifies these areas as being within the flood zone. Additionally, there are three (3) culverts that discharge water beneath Interstates 55/72. These culverts have a minor drainage area (approximately 37 acres) relative to the discharges from Lake Springfield.

This information was used to approximate the flood elevation based off lidar elevations from 2023, velocity for the 100-year storm and to project that information for a 1,000-year storm event. Bonnin et al. (2006) precipitation frequency estimates for the project location in Springfield, IL was used to escalate the 100-year storm to the 1,000-year storm. This document is included in Appendix F and shows the 100-year storm precipitation rate of 6.22 inches and the 1,000-year rate of 8.38 inches. This represents a 35% increase in the potential inflow volume and would result in a 1,000-year outflow volume of 37,454 CFS.

Appendix F includes a cross section that summarizes an evaluation of the floods to provide a range of potential elevations and velocities that could be present for the 100 and 1,000-year events. The evaluation began with holding the 100-year elevation of 545, the outflow volume of 27,800 CFS to calculate a velocity of 0.9 ft/sec based off the area presented in the cross section. This elevation was held, and velocity increased to 6.2 ft/sec to maintain the flow volume based on the new lidar topography. Maintaining the cross-sectional area and 100-year flow velocity was also held for another review, but the elevation increased to 560.18. These two approaches were then averaged to result in an elevation of 552.59 with a 100-year velocity of 3.5 ft/sec. The same process was repeated with the projected 1,000-year flow volume. The highest velocity that can be seen is holding the elevation of 545 for the 1,000-year storm at 8.3 ft/s. This approach is likely overconservative, and the current channel geometry produces higher water elevations and lower velocities, most like the averages of 3.5 ft/sec for the 100-year storm and 4.8 ft/sec for the 1,000-year storm.

Using the maximum permissible velocities of the existing vegetative lining in the range of 4 to 7 ft/sec. and the expected flood velocities within or below that range, there should be no erosion of the existing berms. With there being no concern of erosion of the existing berms that would predicate a release of material, there is minimal ecological risk to Sugar Creek based on the 100-year or 1,000-year flood events.

13. ACM Placement in Operating Record [40 C.F.R. §§ 257.96(d)]

CWLP will place the completed ACM in the facility's operating record upon completion.

14. Public Meeting [40 C.F.R. §§ 257.96(e)]

CWLP will discuss the results of the ACM at least thirty (30) days prior to the selection of remedy, in a public meeting with interested and affected parties.

15. Recordkeeping [40 C.F.R. §§ 257.96(f)]

CWLP will comply with the recordkeeping requirements for ACM as specified in 40 C.F.R. §§ 257.105(h), the notification requirements specified in 40 C.F.R. §§ 257.106(h), and the Internet requirements specified in 40 C.F.R. §§ 257.107(h).

16. Conclusion

Hanson has outlined several closure methods and ancillary (supporting) alternative for mitigating releases of impacted groundwater from CWLP's DAP and LAP that will be protective of human health and the environment, attain the groundwater protection standards, control the source to reduce or eliminate further releases to the environment and remove from the environment as much of the contaminated material as feasible. Hanson recommends that several of these solutions be used in conjunction with each other to meet the requirements of 40 CFR 257.96(a) and 257.97(b). These alternatives include:

1. Install the dewatering well system.
2. Consolidate the LAP CCR into DAP.
3. Construct a cut-off wall at least around DAP.
4. Install a final cover using the ClosureTurf® system.
5. Eventually, install a pump and treat system to manage releases outside the DAP cut-off wall.

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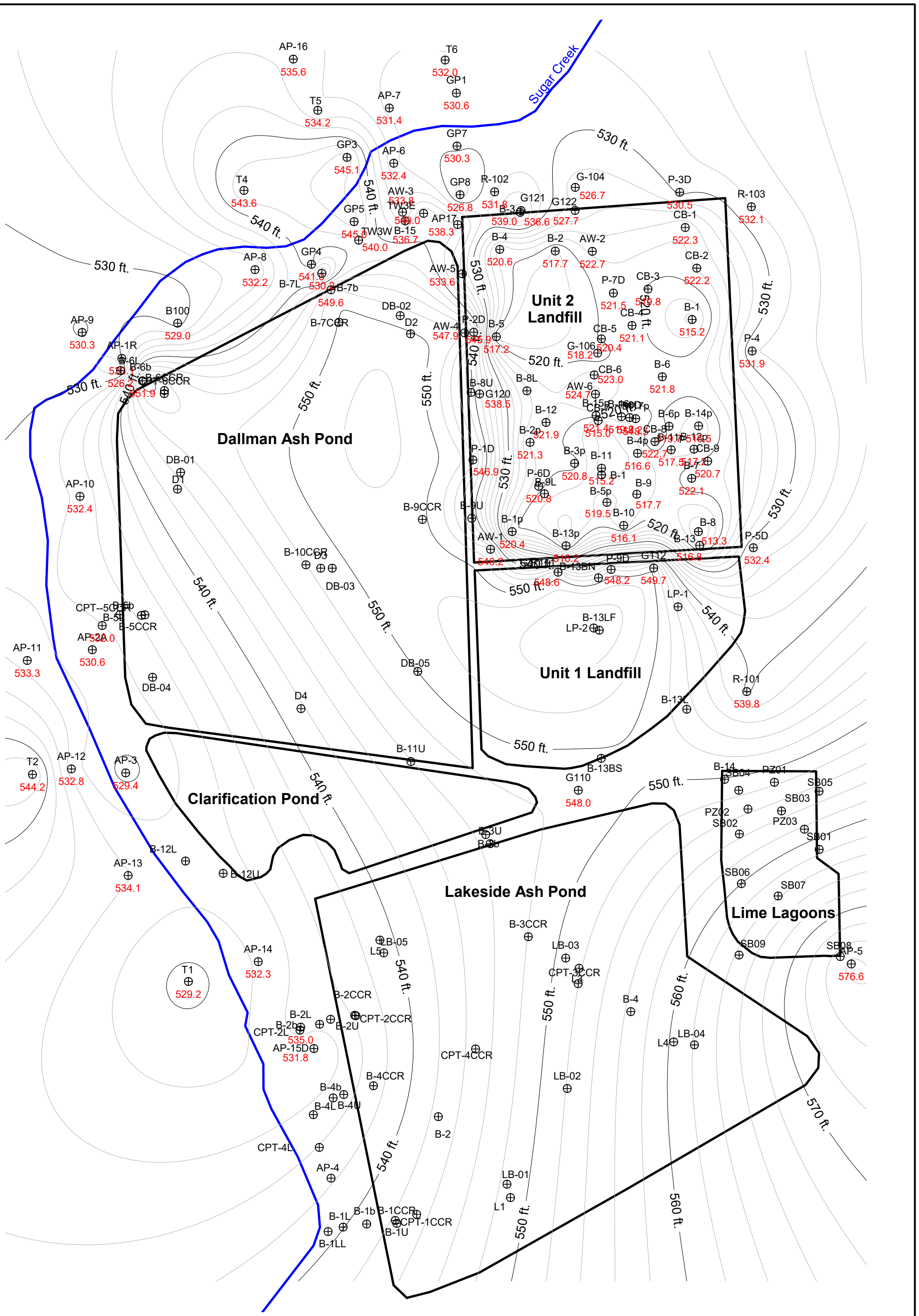
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Appendix A

Structural Contour and Isopach Maps



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SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

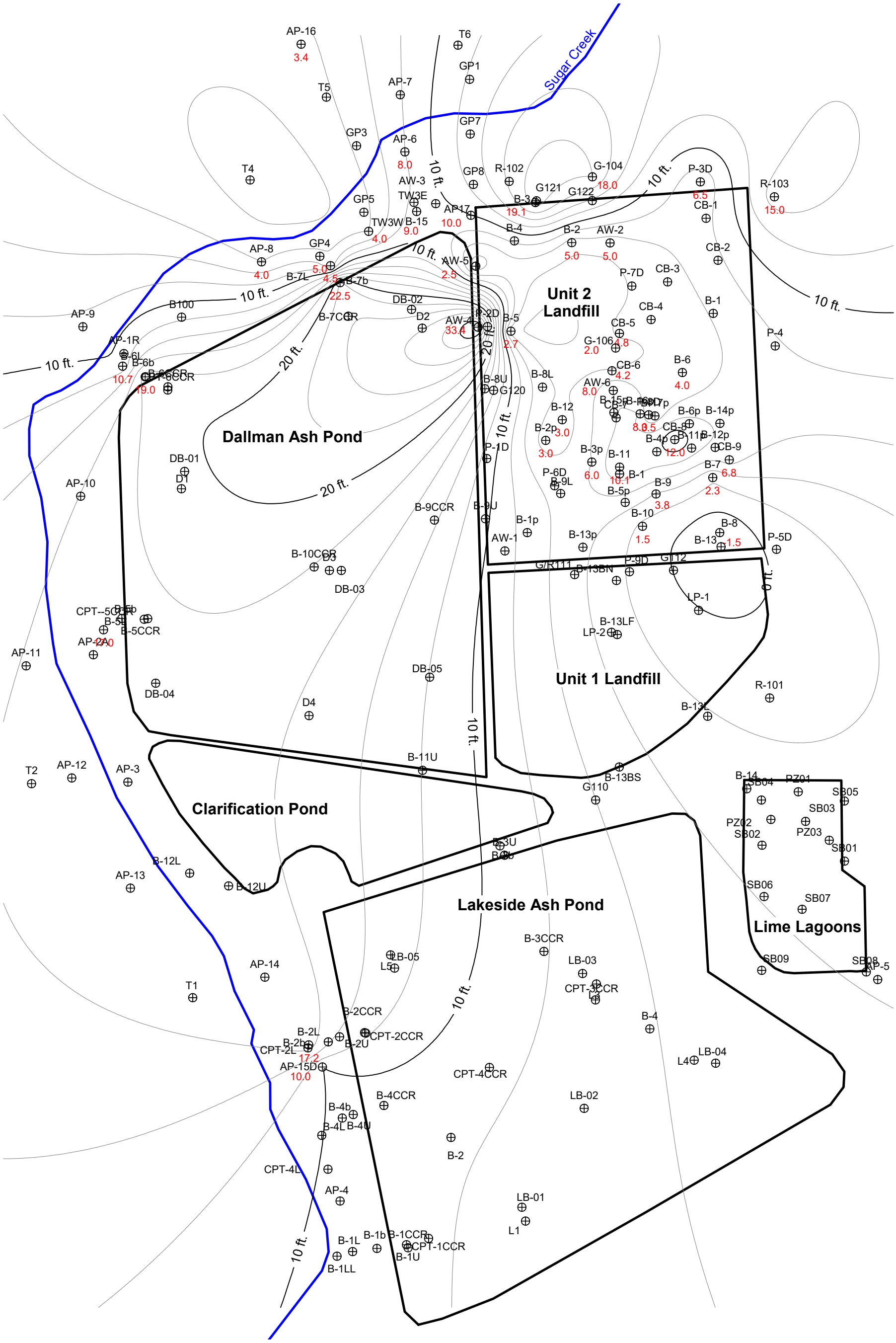
Red elevation indicates the Unit was identified at the indicated elevation at that boring location.

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Structural Contour Map - Upper Cohesive Unit

DALLMAN AND LAKESIDE ASH PONDS
CITY WATER, LIGHT AND POWER
SPRINGFIELD, SANGAMON CO., ILLINOIS

HANSON NO. 25E0006.00 FIGURE NO. A1



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SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

Red thickness indicates the Unit was identified at the indicated thickness at that boring location.

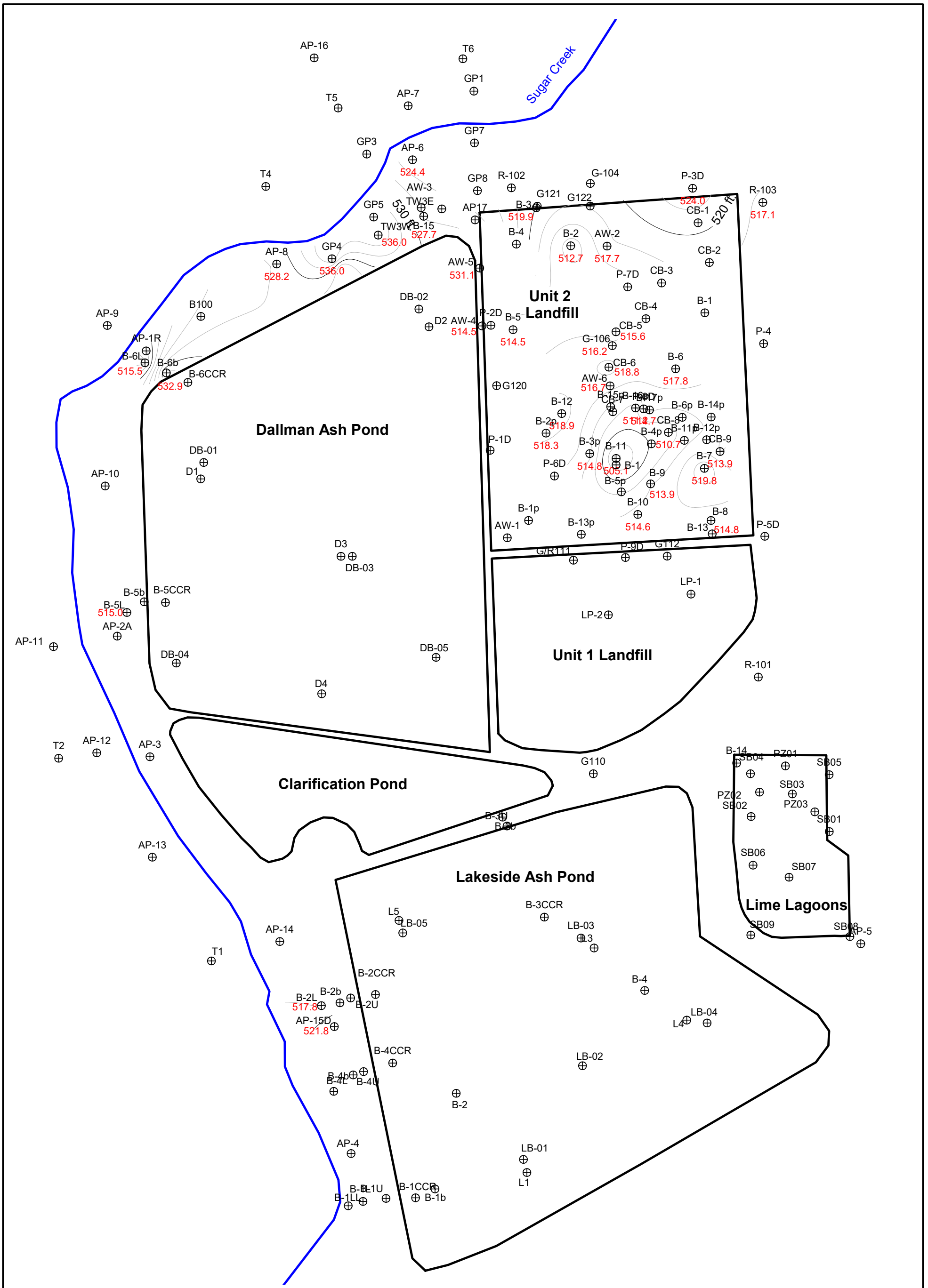
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Isopach Map - Upper Cohesive Unit

DALLMAN AND LAKESIDE ASH PONDS
CITY WATER, LIGHT AND POWER
SPRINGFIELD, SANGAMON CO., ILLINOIS

HANSON NO. 25E0006.00 FIGURE NO. A2



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SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

Red elevation indicates the Unit was identified at the indicated elevation at that boring location.

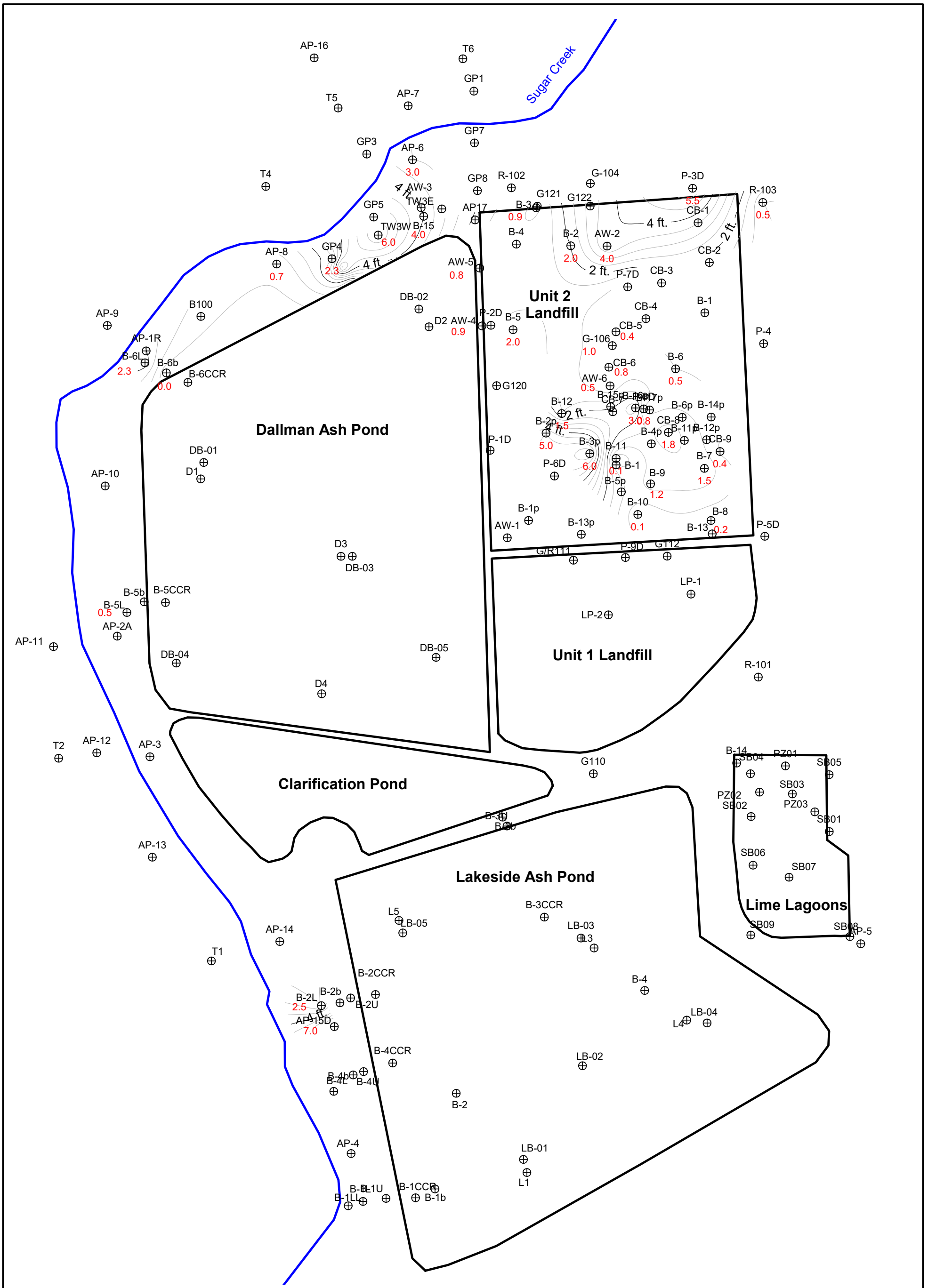
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Structural Contour Map - Shallow Sand Unit

DALLMAN AND LAKESIDE ASH PONDS
CITY WATER, LIGHT AND POWER
SPRINGFIELD, SANGAMON CO., ILLINOIS

HANSON NO. 25E0006.00 FIGURE NO. A3



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SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

Red thickness indicates the Unit was identified at the indicated thickness at that boring location.

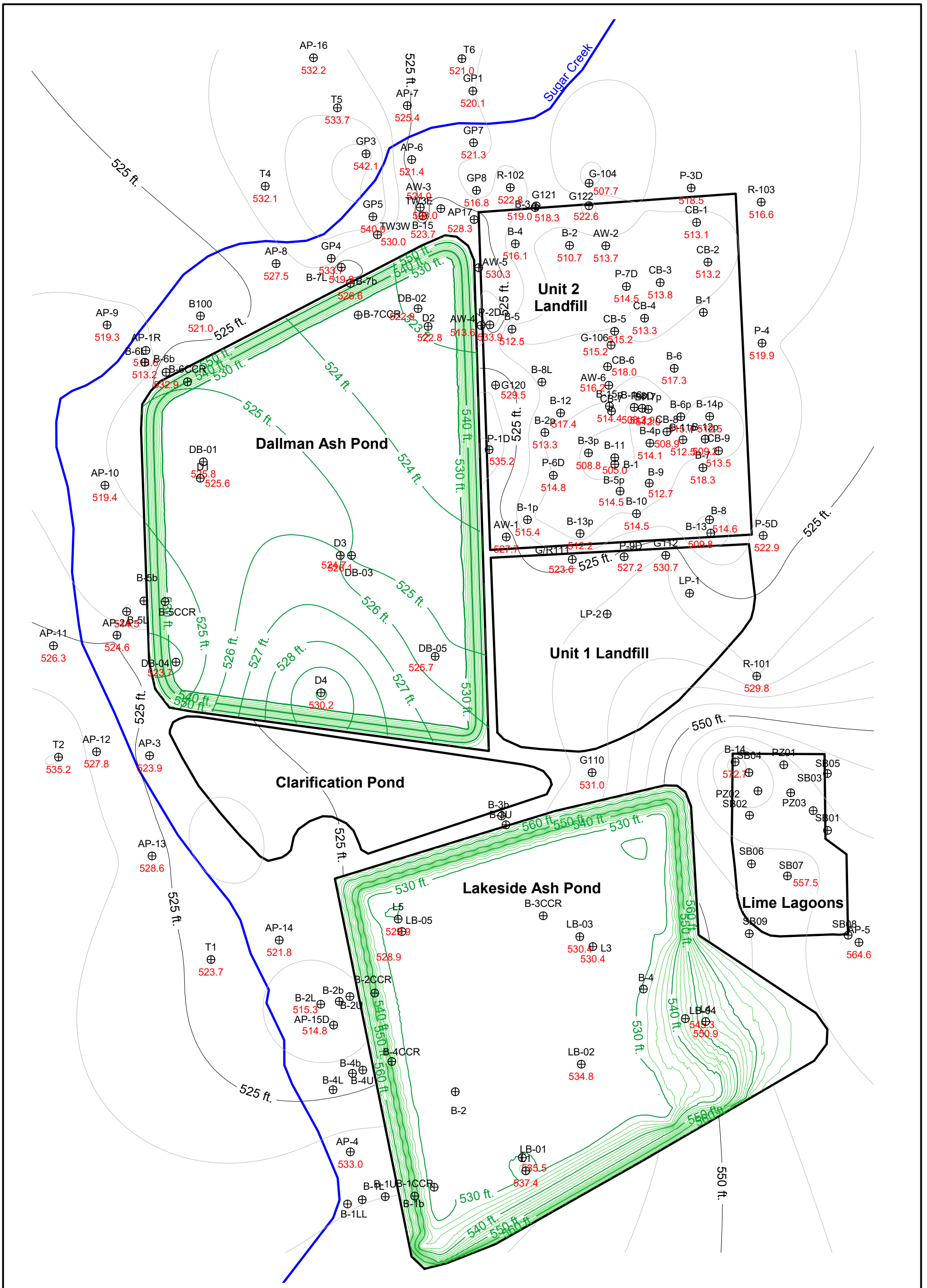
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Isopach Map - Shallow Sand Unit

DALLMAN AND LAKESIDE ASH PONDS
CITY WATER, LIGHT AND POWER
SPRINGFIELD, SANGAMON CO., ILLINOIS

HANSON NO. 25E0006.00 FIGURE NO. A4



Lower Cohesive Unit elevations are shown as the floor elevations in Dallman and Lakeside Ash Ponds.

SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

Red elevation indicates the Unit was identified at the indicated elevation at that boring location.

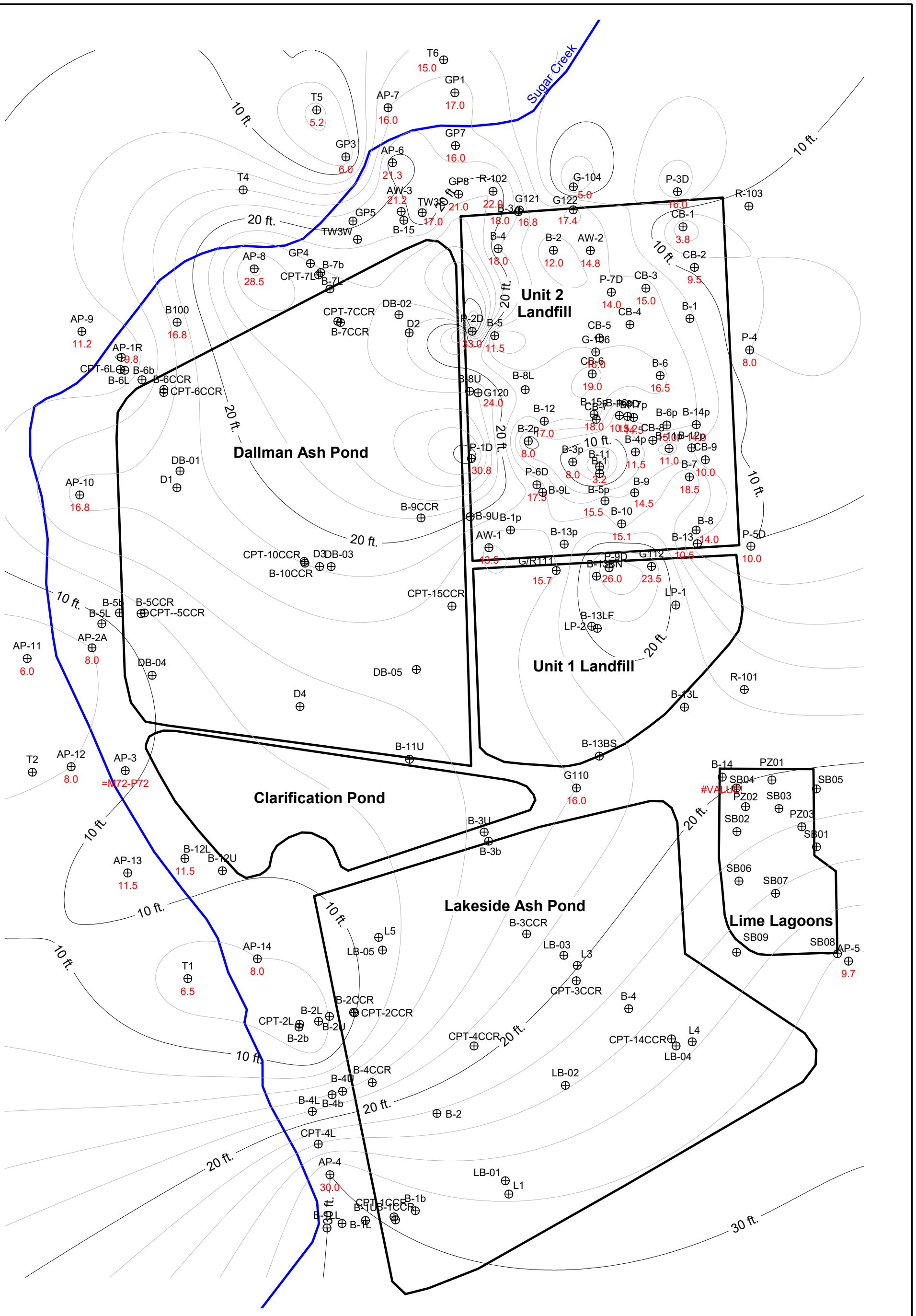
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Structural Contour Map - Lower Cohesive Unit

DALLMAN AND LAKESIDE ASH PONDS
CITY WATER, LIGHT AND POWER
SPRINGFIELD, SANGAMON CO., ILLINOIS

HANSON NO. 25E0006.00 FIGURE NO. A5



Lower Cohesive Unit thichkesses are shown as pre-excavation thicknesses in Dallman and Lakeside Ash Ponds.

SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

Red thickness indicates the Unit was identified at the indicated thickness at that boring location.

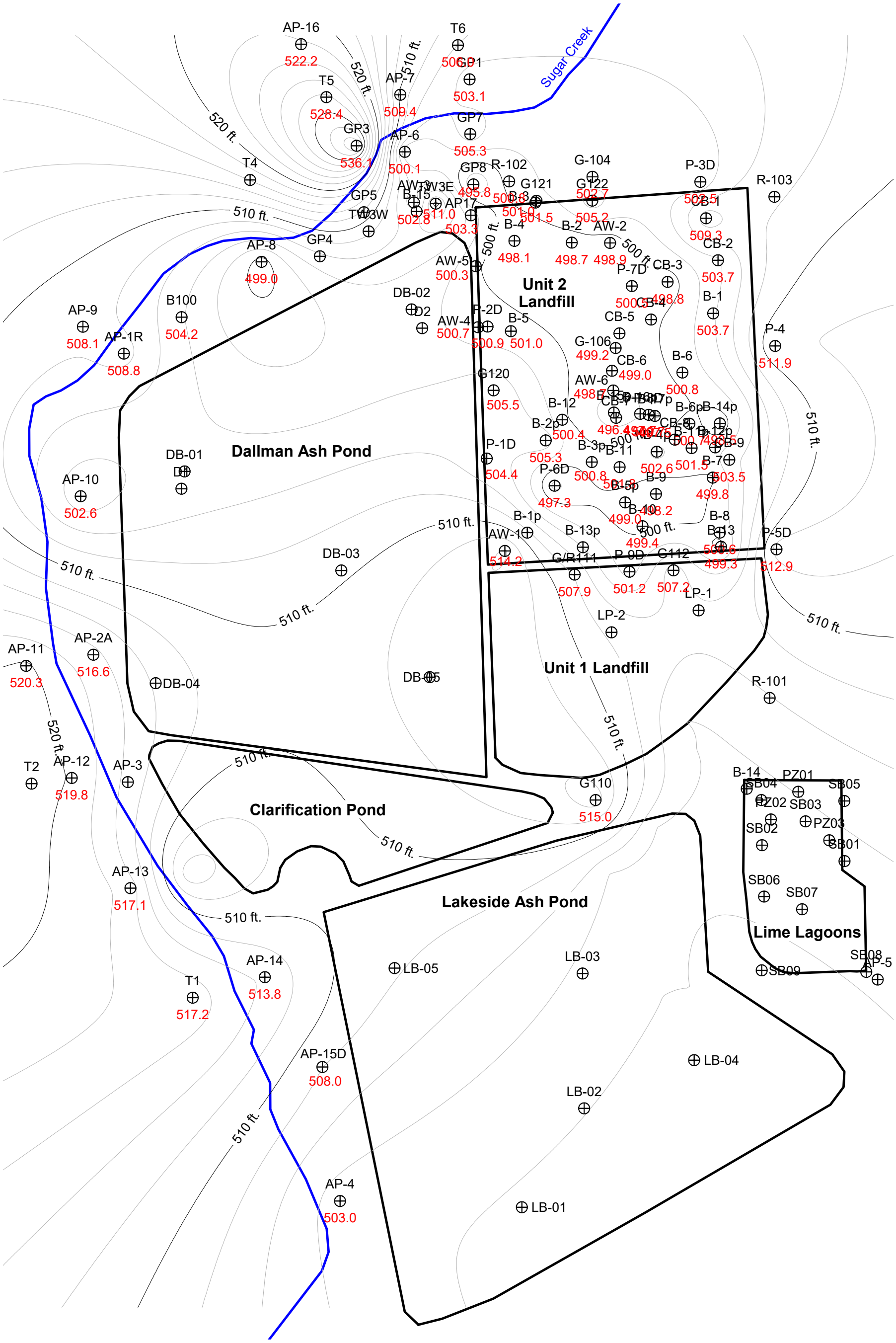
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Isopach Map - Lower Cohesive Unit

DALLMAN AND LAKESIDE ASH PONDS
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SPRINGFIELD, SANGAMON CO., ILLINOIS

HANSON NO. 25E0006.00 FIGURE NO. A6



SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

Red elevation indicates the Unit was identified at the indicated elevation at that boring location.

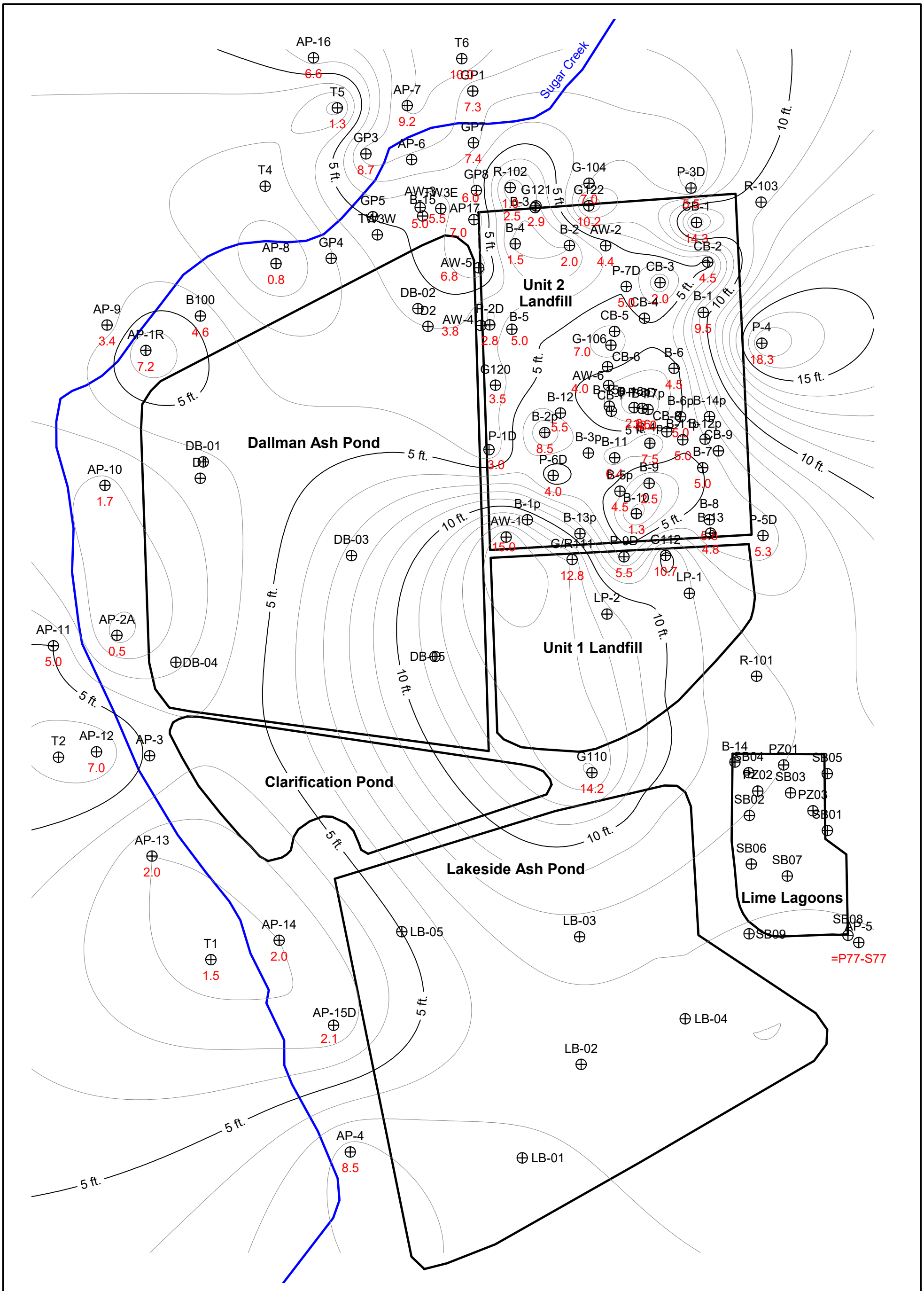
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Structural Contour Map - Basal Sand Unit

DALLMAN AND LAKESIDE ASH PONDS
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HANSON NO. 25E0006.00 FIGURE NO. A7



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SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

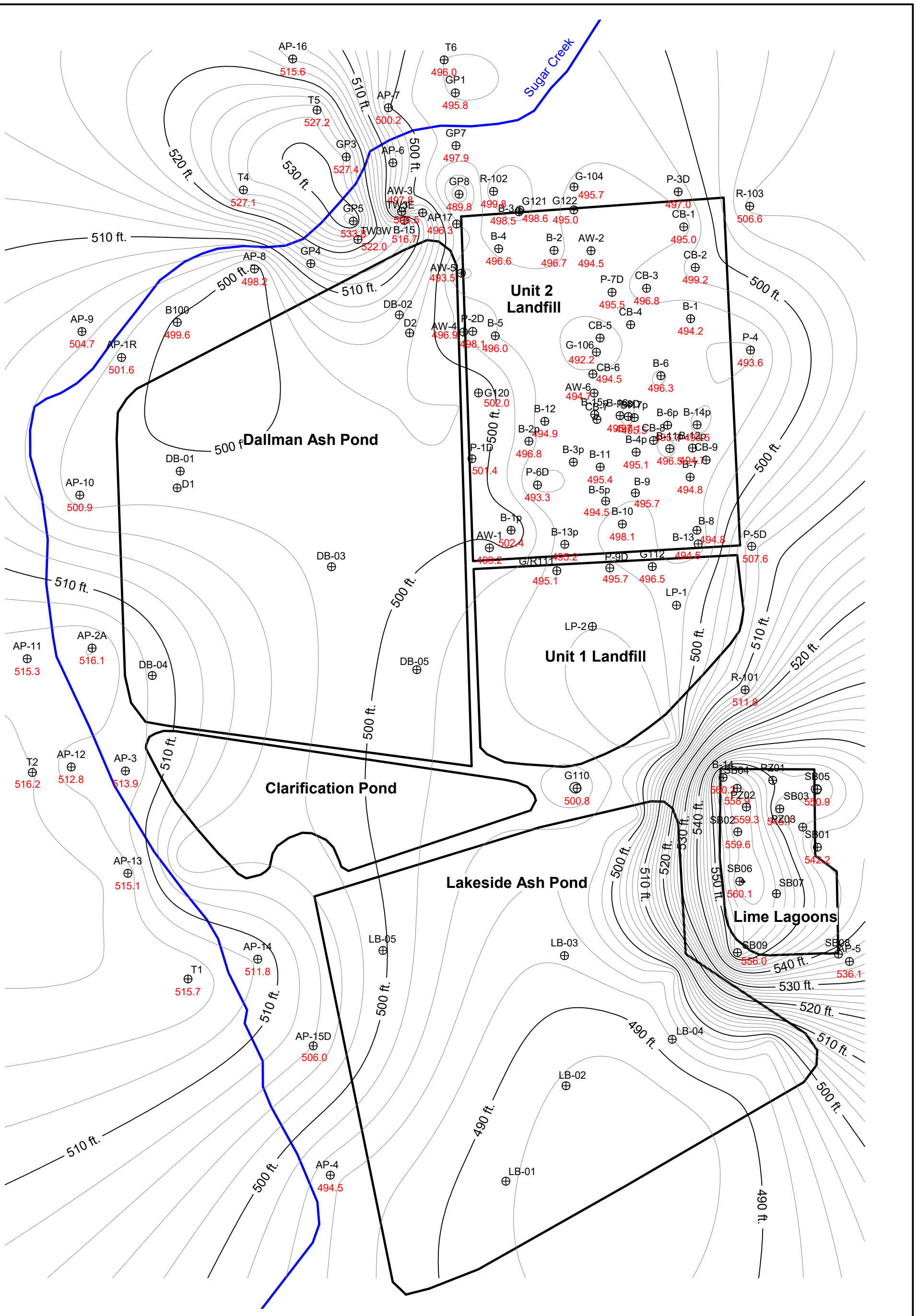
Red thickness indicates the Unit was identified at the indicated thickness at that boring location.

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Isopach Map - Basal Sand Unit

DALLMAN AND LAKESIDE ASH PONDS
CITY WATER, LIGHT AND POWER
SPRINGFIELD, SANGAMON CO., ILLINOIS

HANSON NO. 25E0006.00 FIGURE NO. A8



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SCALE: 1 inch equals 300 feet

0 ft. 300 ft. 600 ft. 900 ft.

Red elevation indicates the Unit was identified at the indicated elevation at that boring location.

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Structural Contour Map - Bedrock Unit

DALLMAN AND LAKESIDE ASH PONDS
CITY WATER, LIGHT AND POWER
SPRINGFIELD, SANGAMON CO., ILLINOIS

HANSON NO. 25E0006.00 FIGURE NO. A9

Appendix B

Nature and Extent Report

City Water, Light & Power
Springfield, Illinois

CCR Surface Impoundments – Nature and Extent Report (CAFO, Paragraphs 268 and 270)

June 2025
Revised September 2025

Prepared for:
City Water, Light & Power
3100 Stevenson Drive
Springfield, Illinois

ANDREWS ENGINEERING

3300 Ginger Creek Drive, Springfield, IL 62711 | 217.787.2334

ILLINOIS | MISSOURI | INDIANA

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1. INTRODUCTION

The original Nature and Extent Report (June 11, 2025) was prepared on behalf of City Water, Light and Power (CWLP) pursuant to Paragraphs 268 and 270 of the Consent Agreement and Final Order (CAFO), effective January 14, 2025 and the requirements of 40 CFR 257.95(g). This revised report augments the initial report with additional information requested by the EPA in communication with CWLP. This report continues to address the Appendix IV constituents exhibiting Statistically Significant Levels (SSLs) identified in the February 13, 2025 Groundwater Protection Standards Report (GWPS Report) for the parameters arsenic (total) at wells RW-3, AP-7, AP-8, and AW-1 and cobalt (total) at wells AP-2 and AP-3.

2. BACKGROUND

CWLP owns and operates two existing coal combustion residuals (CCR) surface impoundments, identified as Lakeside Ash Pond and Dallman Ash Pond. The CWLP CCR surface impoundments are located north and east of the former Lakeside Power Generating Station and Dallman Power Generating Station in the Eastern ½ of Section 12, Township 15 North, Range 5 West, in Springfield, Illinois (see Figure 1). The subject of this submittal, the CCR surface impoundments, are identified as the Lakeside Ash Pond and the Dallman Ash Pond and will be closed.

The former Lakeside Power Generating Station and Dallman Power Generating Station are situated on the northwestern bank of Lake Springfield in Springfield, Illinois. The Lakeside Ash Pond is immediately north of Spaulding Dam at the northern end of Lake Springfield (see Figure 2). The Dallman Ash Pond is immediately northwest of the Lakeside Ash Pond. Placed into service prior to 1958, the Lakeside Ash Pond is primarily a diked embankment with an in situ soil liner. The Lakeside Ash Pond consists of four separate ponds (i.e., three lime softening ponds and a settling pond) totaling approximately 35.0 acres. The Lakeside Ash Pond ceased receiving ash in 2009. The Dallman Ash Pond was placed into service in approximately 1976 and is also a diked embankment with an in situ soil liner. The Dallman Ash Pond is approximately 34.5 acres in area and ceased receiving CCR materials in 2023.

The Lakeside Ash Pond historically received lime sludge from the CWLP Drinking Water Purification Plant and scrubber wastewater treatment plant clarifier blowdown. The Dallman Ash Pond historically received fly ash and bottom ash, which were sluiced with raw lake water from the power generating structures, and industrial facility wastewater treatment plant clarifier blowdown. Settled water from both the Lakeside Ash Pond and Dallman Ash Pond flows into opposite sides of a Clarification Pond for final treatment before being discharged to Sugar Creek at NPDES permitted Outfall 004.

Groundwater adjacent to the impoundments has been monitored under the direction of the Illinois EPA Bureau of Water beginning in 2011 and the US EPA (2016) pursuant to 40 CFR §257.91 –

§257.97. A Groundwater Monitoring Program (GMP) and statistical method appropriate for evaluating groundwater quality changes was prepared, placed into the facility operating record and certifications posted to the facility website October 12, 2017. The GMP was updated April 2018 (certification posted June 7, 2018) when well AW-3 was replaced. The GMP and statistical method were again updated March 2024 (certifications posted March 11, 2024) when wells AP-14, AW-1, and G120 were added to the program. The groundwater protection standards were recalculated, and the sampling procedures document was revised based upon USEPA comments. Most recently, the GMP and statistical method were updated in February 2025 (certifications posted February 21, 2025). Groundwater monitoring performed in accordance with the GMP identified Appendix III parameters at specific wells that exceeded the background concentrations. The exceedances were evaluated pursuant to 40 CFR §257.95. Assessment monitoring results over the period of first quarter 2022 (February 16, 2022) through fourth quarter 2024 (November 11, 2024) identified Appendix IV parameter arsenic exceeding the groundwater protection standard (0.0239 mg/L) at wells RW-3, AP-7, AP-8, and AW1 and Appendix IV parameter cobalt exceeding the groundwater protection standard (0.006 mg/L) at wells AP-2 and AP-3.

A detailed description of groundwater monitoring history for the impoundments is presented in Section 3 below.

3. GROUNDWATER MONITORING PROGRAM

Currently, the surface impoundments are regulated by the USEPA (40 CFR Part 257) and the Illinois EPA (35 Ill. Adm. Code 845). There are two separate groundwater monitoring programs. Data from both regulatory programs have been used in this report and will be differentiated where applicable.

Pursuant to 35 Ill. Adm. Code 845 and 40 CFR §257.91, a GMP was prepared for the CWLP CCR surface impoundments to characterize the groundwater monitoring network of wells, the sampling and analysis methods and procedures, and the Groundwater Protection Standards (GWPS). The GMP also characterizes the activities associated with the assessment of corrective measures, corrective action plan, and implementation of the corrective action plan.

3.1 Historical Groundwater Monitoring Activities

The GMP was initially operated pursuant to §257.94 and consisted of wells AP-1R, AP-2A, AP-3, AP-4, AP-5, and RW-3/AW-3. Under §257.94, constituents listed in Appendix III to 40 CFR Part 257 were monitored on a routine basis. In accordance with §257.95(b), an Assessment Monitoring Program was implemented in February 2018 in response to the statistically significant increase (SSI) over background concentrations for one or more parameters listed in Part 257, Appendix III. In May 2019, as part of the §257.94(e)(2) alternate source investigation, wells AP-6

and AP-7 were installed. Subsequent investigation of the Statistically Significant Increases (SSIs) completed pursuant to §257.95(g)(3)(ii) demonstrated compliance with the GWPS as no Appendix IV constituent concentration exceeded the GWPS. Therefore, assessment monitoring continued pursuant to §257.95(f).

In response to exceedances of GWPS values pursuant to 35 IAC 845.600, seven more wells were installed as part of the Illinois EPA CCR program to augment the monitoring well network and allow the evaluation of exceedances. In February 2021, wells AP-10 and AP-14 were installed along the west side of the impoundments, AP-8 installed along the north side of the CCR ash impoundments and wells AP-9, AP-11, AP-12, and AP-13 were installed west of the creek as facility boundary wells.

In March 2024, six existing wells from the 35 IAC 845 program were added to the 40 CFR 257 groundwater monitoring network pursuant to correspondence with the USEPA. These wells included AP-6, AP-7, AP-8, AP-14, AW-1, and G120.

In May 2024, five additional monitoring wells were advanced in locations across Sugar Creek opposite of the CCR ash impoundments. The subject temporary assessment wells (i.e., T-1, T-2, T-4, T-5, and T-6) were installed at these locations for purposes of an alternate source demonstration and/or determination of the nature and extent of elevated concentrations per 40 CFR 257.95(g)(1)(i) and (iii). The screen intervals were set at the bedrock interface, consistent with the existing downgradient wells. The current monitor well network is shown in Figure 2. Boring logs and well completion reports for the referenced temporary assessment wells are provided in Appendix *A*.

3.2 Monitoring System

In accordance with §257.91 the groundwater monitoring system consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that: (1) accurately represent the quality of background groundwater that has not been affected by the CCR surface impoundment, and (2) accurately represent the quality of groundwater passing the impoundment boundary of the CCR surface impoundment to monitor potential geochemical changes in the uppermost aquifer.

Pursuant to §257.91(b) the number, spacing, and depths of the groundwater monitoring wells have been determined based upon site-specific technical information to meet the rule's performance standard, including the subsurface conditions observed at the site. This includes a characterization of the uppermost aquifer and the confining bedrock layer immediately below the uppermost aquifer.

The groundwater monitoring system consists of wells screening the silt, sand, and gravel at the bedrock interface. Based on the direction of groundwater movement, the northern and western boundaries of the impoundments will be downgradient, and the southern boundaries will be upgradient for both impoundments with the eastern boundaries being upgradient to the Lakeside Ash Pond.

As shown in Figure 2, the current monitor well network includes AP-1R, AP-2A, AP-3, AP-4, AP-5, AP-6, AP-7, AP-8, AP-10, AP-14, RW-3, AW-1, and G120. Two (2) groundwater monitoring wells are representative of background (ambient) groundwater quality conditions of the uppermost aquifer. These wells are identified as AP-4 and AP-5. Background concentrations are chemical concentrations or parameter values that represent naturally-occurring groundwater that has not been affected by the surface impoundment or other facility activities.

Monitoring well AP-4 is located in the southwest corner of the CCR surface impoundments and along the eastern bank of Sugar Creek, immediately north of the Spaulding Dam. Well AP-4 is screened at the surface of the Pennsylvanian shale and basal sand deposits. This well is not upgradient of the subject CCR surface impoundments, but it is located on available CWLP property where it provides representative background groundwater quality pursuant to §257.91(a).

Monitoring well AP-5 is located in a hydraulically upgradient location, southeast of the Lakeside Ash Pond and in a slightly higher topographic location. The well is screened in wet sand and silt seams a few feet above the shale as the borehole samples at the bedrock interface were tight with no indications of formation water. This well monitors the upgradient groundwater quality of the uppermost aquifer at this location.

Eleven groundwater wells allow monitoring of the downgradient groundwater quality conditions in the uppermost aquifer (See Figure 2). The wells are identified as AW-1, RW-3, AP-1R, AP-2A, AP-3, AP-6, AP-7, AP-9, AP-10, AP-14, and G120. The locations and depths of these wells accurately represent the quality of groundwater passing the impoundment boundaries of the CCR units and reasonably make possible the detection of geochemical changes in the uppermost aquifer. Figure 3 identifies the facility boundary wells T-1, T-2, T-4, T-5, T-6, AP-7, AP-9, AP-11, AP-12, and AP-13 installed pursuant to 35 IAC 845.650(d)(1) and/or 40 CFR 257.95(g)(1) to delineate the GWPS exceedances. Temporary assessment wells AP-6 and AP-7 were installed during a July 2019 nature and extent investigation. Temporary assessment wells (i.e., T-1, T-2, T-4, T-5, and T-6) were installed west and north of Sugar Creek as part of the October 28, 2024 ASD to determine the nature and extent of elevated parameter concentrations. The screen intervals of these wells were set at the bedrock interface, consistent with the existing downgradient wells.

Groundwater sampling and analysis over the review period (i.e., first quarter 2022 through fourth quarter 2024) has demonstrated that the CCR surface impoundments have resulted in exceedances of the Appendix IV GWPS for arsenic at wells, AP-8, AW-1, and RW-3 and Appendix IV GWPS exceedances of cobalt at wells AP-2A and AP-3. The vertical and horizontal extent of has been delineated pursuant to §257.95(g)(1).

The detections of arsenic at monitoring well AP-7 are attributed to an alternate source and are not related to the CCR surface impoundments. AP-7 is located north of Sugar Creek, in an area hydrologically separated from the Dallman Ash Pond and other CCR units by a convergent groundwater flow system that directs groundwater from the north and south toward the creek.

Potentiometric surface elevations confirm that groundwater north of Sugar Creek flows southward toward the creek, while groundwater south of the creek, including beneath the Dallman Ash Pond, flows northward. This bidirectional flow pattern establishes Sugar Creek as a discharge zone and a natural hydraulic divide. The absence of hydraulic connectivity between the CCR impoundments and well AP-7 effectively rules out the CCR units as a source of arsenic at this location.

Furthermore, temporary assessment wells T-5 and T-6, located north of AP-7, exhibit potentiometric elevations greater than AP-7, indicating that groundwater and any associated constituents flows from those locations toward AP-7, not from the CCR units located south of the creek. These findings are corroborated by analytical results showing no consistent pattern of arsenic exceedances in wells situated between the Dallman Ash Pond and AP-7.

The spatial distribution of arsenic, combined with groundwater flow direction and the absence of a geochemical plume connecting the impoundments to AP-7, strongly supports the conclusion that the arsenic detected in AP-7 originates from natural geologic variability or other anthropogenic sources unrelated to the CCR surface impoundments. Therefore, no further action under CCR regulatory provisions is warranted at AP-7 based on current data.

3.3 Sampling and Analysis

The GMP includes consistent sampling and analysis procedures to provide accurate representation of groundwater quality (§257.93(a)). The activities include sample collection, preservation and shipment, analytical procedures, chain of custody, and quality assurance and quality control.

Groundwater is sampled for the constituents listed in Appendix III and Appendix IV to Part 257. For groundwater monitoring, these constituents include:

Appendix III to Part 257 Constituents for Detection Monitoring

- Boron
- Calcium
- Chloride
- Fluoride
- pH
- Sulfate
- Total Dissolved Solids

Appendix IV to Part 257 Constituents for Assessment Monitoring

- Antimony
- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Cobalt
- Fluoride
- Lead
- Lithium
- Mercury
- Molybdenum
- Selenium
- Thallium
- Radium 226 and 228 combined

In accordance with §257.93(i), all constituents are analyzed as total recoverable metals where samples are not field filtered. All groundwater samples collected pursuant to §257 Subpart D are analyzed by a certified laboratory using Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods, SW-846 (§257.93(b)). Pursuant to §257.93(c), groundwater levels are measured in each groundwater monitoring well immediately prior to purging, and each time groundwater is sampled.

All monitoring wells were sampled in accordance with 40 CFR 257.95(g)(1)(iv) for the characterization of the nature and extent.

4. SITE HYDROGEOLOGY

The uppermost aquifer and underlying confining unit control groundwater movement and the potential for CCR impacted groundwater migration. Detailed hydrogeologic information contained in the Flow Path Report was utilized to characterize the hydrogeology beneath the impoundments and Unit 2 Landfill. The Flow Path Report is provided in the final appendix of this document (Appendix J).

4.1 Uppermost Aquifer

The uppermost aquifer is characterized as the basal sand overlying the shale bedrock. In some locations, the creek fill materials, ranging from silty clays and organic silty clays to silty sands and clayey sands, were found not to be in direct hydraulic communication with the basal sand that directly overlies the bedrock surface. The Patrick report (1993) defined the creek fill material as materials placed into the abandoned creek within the Unit 2 landfill area. In further review of the historical documents, boring logs and cross sections, it was determined that the boring logs completed by Patrick incorrectly identified natural materials in the upper cohesive deposit as fill.

As indicated above, the hydraulic conductivity of the basal sand ranges from 5.6×10^{-4} to 3.6×10^{-2} cm/sec. The groundwater in the basal sand appears to be under confined, semi-confined, or unconfined conditions dependent upon location. The upper limit of the uppermost aquifer is dependent upon the seasonally fluctuating groundwater table. The potentiometric surface of the basal sand varies from 565 feet MSL at upgradient locations, south of the Lakeside Ash Pond, to 525 feet MSL at downgradient locations near Sugar Creek, north of the Dallman Ash Pond. As a result, the saturated thickness is variably dependent upon the location and the seasonal variation in the groundwater table.

Groundwater movement within the uppermost aquifer is controlled by recharge along topographic highs and discharge along topographic lows via gravity. The pre-surface impoundment flow direction in the uppermost aquifer was dominantly horizontal from the adjacent banks toward the natural convergence along Sugar Creek, which formerly drained the site. This was overall from east to west and south to north, perpendicular to Sugar Creek with local deviations. This dominant flow pattern persists under present day conditions but with localized variation introduced by the hydrologic discontinuity created upon construction of the CCR surface impoundments.

Groundwater elevations are collected on a quarterly basis from the CCR surface impoundment groundwater monitoring wells. The groundwater elevations were used to construct potentiometric surface maps based on wells screened in the basal sand (see Appendix B).

Groundwater monitoring well AW-1 exhibited exceedances of the Appendix IV parameter arsenic during the review period (first quarter 2022 through fourth quarter 2024). Well AW-1 is located

along the southeast corner of the Dallman Ash Pond. Groundwater monitoring wells/piezometer R111, G120 and P06D are located east, north and northeast of AW-1, respectively. Well R111 is part of the 40 CFR 257.94 groundwater monitoring program for the CCR landfill. Both well R111 and piezometer P06D are part of the Illinois EPA groundwater monitoring program for the FGDS Development landfill established pursuant to 35 IAC 811.319.

The potentiometric surface elevations at wells AW-1, R111, G120, and P06D are shown in the following table.

Well	2/16/22	6/2/22	8/25/22	11/9/22	1/26/23	4/11/23	7/5/23	10/25/23	2/22/24	5/13/24	8/12/24	11/12/24
AW-1	541.50	541.55	539.31	540.70	544.02	541.05	539.73	537.04	542.55	541.79	538.85	539.88
R111	529.90	529.40	528.20	528.85	526.74	527.74	526.87	525.53	528.06	528.18	526.11	527.16
G120	537.20	536.92	535.11	537.06	536.49	536.81	534.21	533.13	537.11	536.95	534.09	535.02
P06D	524.70	524.70	524.70	528.29	519.78	519.78	518.17	517.41	523.96	523.96	523.96	NM

NM – Not Measured

Potential constituent concentrations are expected to travel via advective flow. Groundwater, movement is west to east/northeast along the east side of the Dallman Ash Pond. The impacts reported for well AW-1 are attributed to the Dallman Ash Pond. These impacts are delineated by the downgradient wells R111, G120, and P06D. As discussed in Section 5.1 below, arsenic concentrations detected in AW-1 have been delineated.

The temporary assessment well AP-7 was installed to determine the extent of elevated concentrations of specific constituents observed at well RW-3. Sampling of AP-7 indicated exceedance of the Groundwater Protection Standard for arsenic. Additional temporary assessment wells T-5 and T-6 were installed to delineate concentrations of arsenic in the vicinity of AP-7. Temporary assessment well T-4 was installed north of Sugar Creek to delineate concentrations of arsenic detected at well AP-8.

The potentiometric surface elevations at wells RW-3, AP-6, AP-7, and AP-8 and temporary assessment wells T-4, T-5 and T-6 are shown in the following table. The surface water elevations for Sugar Creek (USGS Gage 05576250) are also included in the following table.

Well	2/16/22	6/2/22	8/25/22	11/9/22	1/26/23	4/11/23	7/5/23	10/25/23	2/22/24	5/13/24	8/12/24	11/12/24
RW-3	529.64	530.30	529.72	528.71	528.52	529.68	527.43	526.63	529.32	530.55	527.11	526.97
AP-6	530.04	530.06	528.6	NM	528.51	529.03	526.98	526.4	528.61	529.89	526.71	526.65
AP-8	530.79	531.74	529.90	NM	535.10	535.95	533.56	532.23	535.82	536.56	533.33	532.98
Sugar Creek	524.48	525.34	520.3	521.42	523.29	520.25	521.86	520.35	520.18	522.06	520.28	521.34
T-4	NI	NI	NI	NI	NI	NI	NI	NI	NI	536.22	530.28	529.32
AP-7	528.13	528.98	527.81	NM	524.41	527.43	526.57	525.44	526.81	528.02	525.87	525.45
T-6	NI	NI	NI	NI	NI	NI	NI	NI	NI	529.87	528.44	527.30
T-5	NI	NI	NI	NI	NI	NI	NI	NI	NI	535.36	529.96	529.20

Note:
NM – not measured
NI – not installed

The groundwater elevations at well RW-3 are greater than those observed at AP-6, a well located between Sugar Creek and RW-3. The creek elevation is consistently lower than the groundwater elevations adjacent (both sides) to the creek. This indicates groundwater movement is from RW-3 to the north. Potentiometric surfaces in wells T-5 and T-6 are greater than well AP-7, all located north of Sugar Creek. Groundwater movement is from north to south towards the creek. The creek is a convergence point (low point) between wells screened north and south of the creek. Potential constituent concentrations will travel via advective flow. As groundwater, movement is north to south, north of the creek, no influence from the impoundments will be detected north of the creek.

Similarly, to the north end of the Dallman Ash Pond, groundwater east and west of the Dallman Ash pond converges on Sugar Creek. Groundwater monitoring wells AP-2A and AP-3 are located immediately east of Sugar Creek, at the toe of the Dallman Ash Pond embankment. Groundwater monitoring wells AP-11 and AP-12 were installed west of Sugar Creek to delineate concentrations of cobalt. These wells were installed as assessment wells to determine the extent of the impacts observed at wells AP-2A and AP-3. Groundwater monitoring well T-2 was installed further west of AP-11 and AP-12 to allow determination of groundwater flow west of Sugar Creek.

The potentiometric surface elevations at wells AP-2A, AP-3, AP-11 and AP-12 and temporary assessment well T-2 are shown in the following table. The surface water elevations for Sugar Creek (USGS Gage 05576250) are also included in the following table.

Well	2/16/22	6/2/22	8/25/22	11/9/22	1/26/23	4/11/23	7/5/23	10/25/23	2/22/24	5/13/24	8/12/24	11/12/24
AP-2A	529.89	528.17	527.23	NM	529.2	528.86	527.53	527.40	528.88	529.05	527.61	529.56
AP-3	526.98	525.54	524.39	NM	525.93	525.77	524.69	525.31	528.14	526.14	525.30	525.70
Sugar Creek	524.48	525.34	520.3	521.42	523.29	520.25	521.86	520.35	520.18	522.06	520.28	521.34
AP-11	526.89	525.16	522.68	NM	NM	523.90	523.39	522.14	523.68	528.35	522.28	522.67
AP-12	526.52	526.09	523.41	NM	NM	525.74	524.07	522.26	523.35	528.46	522.66	522.78
T-2	NI	NI	NI	NI	NI	NI	NI	NI	NI	530.37	523.87	534.39

Note:
NM – not measured
NI – not installed

Potential constituent concentrations are expected to travel via advective flow. Groundwater, movement is east to west along the east side of Sugar Creek and west to east along the west side of Sugar Creek. No influence from the impoundments will be detected west of the creek. As discussed in Section 5.1 below, arsenic concentrations detected in AP-7 are not the result of influences from the impoundments.

4.2 Lower Confining Unit

The uppermost bedrock at the project site is primarily Pennsylvanian age shale with isolated thin coal layers. The Pennsylvanian shale functions as a lower confining unit due to its low permeability and effective porosity. The lower confining unit represents a natural hydrogeologic barrier (i.e., aquitard) to the vertical movement of groundwater.

In situ hydraulic conductivity test (slug tests) indicate that the hydraulic conductivity for the upper portions of the bedrock range from 1.8×10^{-7} to 1.3×10^{-6} cm/sec (Patrick, 1993). There appears to be good correlation between the rock lithology and the measured values of hydraulic conductivity. The bedrock over most of the site will act as an aquitard and prevent the downward movement of groundwater. Slug tests and boring logs for the two bedrock wells (P-6R and P-7R) are included in Appendix C.

4.3 Surface Water

The nearest surface water bodies are Lake Springfield, located upgradient to the CCR surface impoundments and Sugar Creek located adjacent to the western and northern perimeter of the CCR surface impoundments:

- Lake Springfield
- Sugar Creek

4.3.1 Surface Water Intakes

There are two surface water intakes located near the CCR surface impoundments facility. These intakes are identified as:

- Intake No. 52140 - Lake Springfield 1 Intake
- Intake No. 52141 - South Fork Horse Creek Intake

Both of these intakes are located along Lake Springfield and supply water to the Springfield public water supply (IL1671200). These intakes are upgradient of the CCR surface impoundments and completely disassociated with the impoundments.

4.4 Community Water Supply Wells

A potable water well survey was completed in the vicinity of the Dallman and Lakeside Ash Ponds. The survey was conducted using the Illinois EPA's web-based Geographic Information System (GIS) database[1] in the Source Water Assessment Program (SWAP) for potable water wells downgradient of the CCR impoundments.

[1] (http://illinois-epa.maps.arcgis.com/apps/webappviewer/index.html?id=4d37a05f5ba441f1b30dab54ccb81fc8)

The Illinois EPA's SWAP GIS database system identifies community water supply wells and other potable wells (private, semi-private and non-community water supply wells) include data from the following sources:

- Illinois EPA, Division of Public Water Supplies;
- Illinois State Geological Survey (ISGS);
- Illinois State Water Survey; and
- Illinois Department of Public Health

Based on groundwater elevation data from numerous monitoring wells and piezometers located between and adjacent to the CWLP CCR impoundments, groundwater movement in the vicinity of the CCR impoundments is generally from the south-southeast to the north, approximately paralleling the Sugar Creek basin. The search extended to the first water well encountered hydraulically downgradient of the impoundments, located near Illinois Route 29 at a distance of approximately 3,400 feet.

There is no reason to believe that potable wells exist within 2,500-feet of the CCR impoundments that were not identified as part of this potable water well survey.

5. GROUNDWATER ANALYTICAL RESULTS

Quarterly groundwater sampling and analyses have occurred at CCR Impoundment wells for the parameters identified in Appendix III and Appendix IV to Part 257. The results of first quarter 2022 through fourth quarter 2024 sampling events indicate an exceedance of the GWPSs for the Appendix IV to Part 257 constituent arsenic at wells AW-1, RW-3, AP-7, and AP-8 and cobalt at wells AP-2A and AP-3. A summary table of the exceedances is provided as Table 1. Analytical summary tables are provided in Appendix D. Exceedance parameter trend graphs are provided in Appendix E. Geologic cross-sections are included as Appendix F. Laboratory analytical reports for the last four sampling events for the detection and assessment monitoring wells are provided in Appendix G.

5.1 Arsenic, Total

The groundwater protection standard for arsenic (0.0239 mg/L) exhibited confirmed exceedances at groundwater monitoring wells AW-1, RW-3, AP-7, and AP-8 during the review period (i.e., first quarter 2022 through fourth quarter 2024). Arsenic exceedances at downgradient wells RW-3 and AP-7 have been previously addressed in an October 28, 2024 ASD and are discussed in detail below. Graphs depicting arsenic concentrations at the CCR Impoundment groundwater monitoring well network are provided in Appendix E.

Arsenic occurs naturally in rock, soil, air, and plants. A report entitled, arsenic in Illinois Groundwater[2], was published in January 2002 in cooperation with the Illinois Department of Natural Resources, Illinois Department of Public Health, and Illinois Environmental Protection Agency. The report states that higher concentrations of arsenic are expected to be observed in private groundwater sources of drinking water as opposed to public water supply sources, as it is not filtered to remove natural sedimentation. A subsequent study conducted by the Illinois State Water Survey (Wilson, et al., 2004[3]) stated "arsenic is a minor constituent of some common minerals, and dissolved arsenic concentrations greater than 1 ppb are common in groundwater. In some aquifers and under certain conditions, much greater arsenic concentrations can be found, and concentrations above 10 ppb are not uncommon.

As discussed above, arsenic occurs naturally in rock, soil, air, and plants. The report, arsenic in Illinois Groundwater, states that higher concentrations of arsenic are expected to be observed in private groundwater sources. The elevated arsenic concentrations are attributed to the impact of the shallow outwash/bedrock aquifer. The uppermost bedrock is comprised of Pennsylvanian aged shale of the Spoon Formation. As noted in Panno et al. (1994)[4], redox-conditions and bedrock mineralogy control arsenic concentrations. Panno et al. (1994) identifies the reduction of adsorbed arsenate to arsenite as a possible source of the remobilization of adsorbed arsenic. Based upon the geological information collected to date, there appears to be a bedrock high oriented roughly northwest to southeast, between the northern limb located between T-4 and T-5 and extending southeast toward RW-3. The bedrock along this ridge appears to be the source of the higher total arsenic concentrations. Geologic cross-sections are provided in Appendix F. The ridge can be seen on two east-west cross sections, one immediately north of the impoundments (A-A') and one immediately north of Sugar Creek (M-M'). Cross Section K-K' is a north-south section crossing the creek between well T-5 and a previous assessment well TW3W. The change in bedrock elevation is very apparent, decreasing from approximately 527 feet MSL at previous assessment well GP3 to approximately 513 feet MSL at TW3W.

5.1.1 Well AW-1

Well AW-1 is located along the southeast corner of the Dallman Ash Pond. Nearby downgradient wells include R111 and G120. The concentrations of arsenic at well AW-1 during the review period ranged from 0.129 to 0.208 mg/L, exceeding the groundwater protection standard nine out of the twelve sampling events. The groundwater protection standard for arsenic was not exceeded at wells R111 or G120 during the review period.

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[2] Website:https://www.isws.illinois.edu/groundwater-science/gs-archive/arsenic-information/arsenic-in-illinois-groundwater.

[3] Wilson, S. D., Dunneback, B., Askren, K., and Kaiser, B., 2004, Arsenic in Illinois Groundwater: Implications for non-community public water supplies, MTAC TR04-0, Illinois State Water Survey, 40 p.

[4] Panno, S.V., et al. "Hydrochemistry of the Mahomet Bedrock Valley Aquifer, East-Central Illinois: indicators of recharge and ground-water flow." Ground Water, vol. 32, no. 4, July-Aug. 1994, pp. 591.

Geologic cross-sections I-I' and L-L' depict the geologic conditions in the vicinity of AW-1, G120, and R111 (see Appendix F). As depicted in these geologic cross-sections the groundwater monitoring wells are consistently screened across the basal sand and unconsolidated/bedrock interface. The potentiometric surface depicted on cross-sections I-I' and L-L' shows groundwater elevations at wells AW-1, G120, and R111. As depicted on the cross-section groundwater movement is from AW-1 towards G120 and towards R111. As indicated above, the groundwater protection standard for arsenic was not exceeded at wells P06D, R111 or G120 during the review period. These wells help define the downgradient extent of the arsenic detections at well AW-1.

5.1.2 Well RW-3

Well RW-3 is located at the northeast corner of the Dallman Ash Pond situated immediately north of the Dallman Ash Pond embankment and south of Sugar Creek. The concentrations of arsenic at well RW-3 during the review period ranged from 0.0831 to 0.74 mg/L, exceeding the groundwater protection standard all twelve sampling events.

The nature and extent of the arsenic exceedances at well RW-3 is defined by assessment wells AP-6, T-5, and T-6. These wells are located north of and downgradient of well RW-3.

The groundwater protection standard for arsenic was not exceeded at wells AP-6, T-4, T-5, or T-6 during the review period. The exceedances of arsenic at well AP-7 are discussed below.

Geologic cross-section N-N' depicts the geologic conditions along the north and south side of Sugar Creek, from RW-3 through AP-6, and across Sugar Creek to AP-7 (see Appendix F). As depicted in the geologic cross-sections the groundwater monitoring wells are consistently screened across the basal sand and unconsolidated/bedrock interface. The potentiometric surface depicted on cross-section N-N' shows groundwater elevations at these wells and Sugar Creek. As depicted on the cross-section groundwater movement both north and south of Sugar Creek appears to be toward the creek, as expected with a gaining stream.

5.1.3 Well AP-7

Well AP7 was installed to determine the nature and extent of the arsenic detected in well RW-3. The concentrations at well AP-7 ranged from non-detect (<0.025 mg/L) to 0.0947 mg/L during the review period, exceeding the groundwater protection standard nine out of the twelve sampling events.

Temporary assessment wells located north of AP-7 include T-5 and T-6. Only three sampling events have occurred thus far for these temporary assessment wells. Arsenic concentrations at wells T-5 and T-6 ranged from less than the detection limit (0.001 mg/L) to 0.0158 mg/L for the second and third quarters of 2024 and at 0.0016 mg/L for the fourth quarter 2024.

The creek has historically been a point of convergence for the local groundwater system. As depicted in geologic cross-section N-N', groundwater movement at well AP-7 appears to be towards the creek, which is toward the impoundments (see Appendix F). The groundwater quality at well AP-7 is believed representative of conditions north of and unrelated to the CCR site.

5.1.4 Well AP-8

Well AP-8, was installed along the north side of the Dallman Ash Pond to characterize CCR constituent concentrations. The concentrations of arsenic at well AP-8 during the review period ranged from 0.0319 to 0.0513 mg/L, exceeding the groundwater protection standard for seven out of the twelve sampling events. The nature and extent of the arsenic exceedance at well AP-8 is defined by temporary assessment well T-4. Well T-4 was installed north of well AP-8, along the northern bank of Sugar Creek. Only three sampling events have occurred thus far for temporary assessment well T-4. The concentrations of arsenic at well T-4 during the review period ranged from 0.0013 to 0.0055 mg/L.

Geologic cross-section O-O' depicts the geologic conditions along the north and south side of Sugar Creek, near AP-8 and T-4 (see Appendix F). As depicted in the geologic cross-sections the groundwater monitoring wells are consistently screened across the basal sand and unconsolidated/bedrock interface. The potentiometric surface depicted on cross-section O-O' shows groundwater elevations at wells AP-8 and T-4 and Sugar Creek. As depicted on the cross-section groundwater movement, both north and south of Sugar Creek appears to be toward the creek.

5.1.5 Piezometer P06D

Piezometer P06D was redeveloped and sampled for total arsenic the first quarter 2025, resulting in a concentration of 0.0153 mg/L. The piezometer is screened in silty sand directly overlying the bedrock surface. As stated above, arsenic concentrations exceeding the GWPS at AW-1 are delineated by P06D. The piezometer has only been recently sampled two times: second quarter 2021 (0.0269 mg/L), and the first quarter 2025 (0.0153 mg/L). The boring log, well completion report and analytical reports are provided in Appendix H.

5.1.6 Piezometer GP-7

Piezometer GP-7 is located north of the northeast corner of the Dallman Ash Pond, screened in a dark gray silty sand. The piezometer was installed in 2019 to better define the hydrogeologic characteristics in the proximity of well RW-3. The piezometer was sampled and analyzed for total arsenic and field parameters August 8, 2025. The total arsenic concentration result was 0.0072 mg/L, delineating concentrations of arsenic exceeding the GWPS at RW-3. The boring log, well completion report and laboratory report at provided in Appendix I.

5.2 Cobalt, Total

The analytical results for cobalt (0.006 mg/L) exhibit confirmed exceedances of the groundwater protection standard at groundwater monitoring wells AP-2A and AP-3 during the review period (i.e., first quarter 2022 through fourth quarter 2024).

Cobalt in Illinois groundwater is not extensively documented; however, its presence is inferred from geological and anthropogenic sources. According to Hem (1985)[5] naturally occurring concentrations of cobalt are low (<0.1 mg/L) in natural groundwater, likely derived from weathering of Cobalt-rich minerals. Elevated concentrations (>0.05 mg/L) typically indicate anthropogenic inputs. Electric Power Research Institute (EPRI) (2019)[6] states the occurrence of cobalt in CCR leachate ranges from less than the analytical detection limit to 3.1 mg/L with the median concentrations for porewater from different types of CCR at concentrations typically less than 0.004 mg/L.

Graphs depicting cobalt concentrations at the CCR impoundment groundwater monitoring well network are provided in Appendix E.

5.2.1 AP-2A

The concentrations of cobalt at well AP-2A during the review period ranged from 0.0068 to 0.0115 mg/L, exceeding the groundwater protection standard (0.006 mg/L) for all twelve sampling events. At well AP-11, located west of the creek from AP-2A, the cobalt concentrations ranged from non-detect (<0.005 mg/L) to 0.0061 mg/L, exceeding the groundwater protection standard in two of the twelve sampling events.

Well AP-2A is located along the west side of the CCR impoundments and immediately east of Sugar Creek. As part of the evaluation of the extent of cobalt concentration in excess of the GWPS, temporary assessment wells AP-11 and T-2 were installed along the west side of Sugar Creek. Only three sampling events have occurred thus far for temporary assessment well T-2. The groundwater protection standard exceedances for cobalt at well AP-11 occurred during 2022 and 2023. The maximum concentrations detected at AP-11 during this period was 0.011 mg/L. Quarterly cobalt concentrations at AP-11 have been below the detection limit of 0.005 mg/L since October 2023, delineating the GWPS exceedances at AP-2 to the west.

The creek has historically been a point of convergence for the local groundwater system. Geologic cross-sections B-B' and C-C' depict the geologic conditions along the west side and east side of Sugar Creek, respectively (see Appendix F). As depicted in the geologic cross-sections, the groundwater monitoring wells are consistently screened across the basal sand and

[5] *Hem, J. D. - Study and interpretation of the chemical characteristics of natural water. 3.ed: U.S. Geological Survey Water- Supply Paper 2254. 1985. p. 272.*

[6] *Chemical Constituents in Coal Combustion Products: cobalt. EPRI, Palo Alto, CA: 2019. 3002016497.*

unconsolidated/bedrock interface. The potentiometric surface depicted on cross-section P-P' shows groundwater elevations at wells AP-2A and AP-11 and Sugar Creek. As depicted on the cross-section, groundwater movement both east and west of Sugar Creek appears to be toward the creek. The groundwater quality at wells AP-11 and T-2 is representative of conditions west of the CCR site.

5.2.2 AP-3

The concentrations of cobalt at well AP-3 during the review period ranged from non-detect (0.005 mg/L) to 0.0071 mg/L, exceeding the groundwater protection standard in only two of the twelve sampling events. Well AP-3 is located along the west side of the CCR impoundments and immediately east of Sugar Creek. As part of the evaluation of the extent of cobalt concentration in excess of the GWPS, temporary assessment wells AP-12 and T-2 were installed along the west side of Sugar Creek. Well AP-12 is located directly west and across the creek from AP-3. Concentrations ranged from non-detect (<0.005 mg/L) to 0.0236 mg/L, exceeding the groundwater protection standard in five of the twelve sampling events. Therefore, well T-2 was installed west of AP-12 to further evaluate the cobalt concentrations. Of the three sampling events conducted at T-2 during the review period, the May 2024 sampling event yielded a concentration of 0.0075 mg/L. Subsequent quarterly sampling events at T-2 yielded concentrations below the detection limit of 0.005 mg/L, thus delineating the extent of cobalt west of AP-3.

The creek has historically been a point of convergence for the local groundwater system. Geologic cross-sections B-B', C-C', and F-F' depict the geologic conditions in the vicinity of AP-3, AP-12, and T-2 (see Appendix F). As depicted in these geologic cross-sections the groundwater monitoring wells are consistently screened across the basal sand and unconsolidated/bedrock interface. The potentiometric surface depicted on cross-section F-F' shows groundwater elevations at wells AP-3, AP-12, T-2, and Sugar Creek. As depicted on the cross-section groundwater movement both east and west of the creek appears to be toward the creek. The groundwater quality at wells AP-12 and T-2 is believed to be representative of conditions west of the CCR site.

5.3 Indicator Parameters

Detecting groundwater impacts from fly ash and bottom ash requires monitoring specific indicator parameters that reflect the leaching of CCRs and their interaction with groundwater. The best indicators are those that are mobile, persistent, and uniquely associated with CCRs, while also being detectable at low concentrations.

Based on a significant amount of data obtained from the numerous wells located on the periphery of the impoundments, boron has shown to be the best indicator parameter of the CCR constituents for the CWLP CCR ash impoundments. A graph illustrating the boron concentrations for the wells located immediately adjacent and downgradient to the impoundments (AP-1R, AP-3,

AP-4, AP-6, AP-8, AP-10, AP-14, and RW-3) is provided in Appendix E. As shown, wells AP-1R and AP-14 consistently exhibit the highest boron concentrations of the wells. Well AP-3 exhibits the next highest boron concentrations. The northern wells (AP-6 and RW-3) exhibit boron concentrations less than 0.5 mg/L. This indicates that the uppermost aquifer is not significantly influenced by the CCR impoundments on the northern periphery of the impoundments.

6. NATURE AND ESTIMATED QUANTITY OF MATERIAL

40 CFR 257.95(g)(1)(ii) requires data on the nature and estimated quantity of material released, including specific information on the constituents listed in Appendix IV and the levels at which they are present in the material released to be collected.

Information on the constituents listed in Appendix IV and the levels at which they are present in the in-place materials within Lakeside and Dallman Ash Ponds has been collected. In May 2024, four borings were advanced within Lakeside Ash Pond (L1, L3, L4, and L5) and four borings were advanced within Dallman Ash Pond (D1, D2, D3, and D4) for the purpose of obtaining representative samples of in-place solids materials and porewater. Each boring was advanced with hollow stem augers and solids samples were collected via split barrel samplers. Solids samples were submitted for total and TCLP/SPLP analysis of the Appendix IV constituents. Once final depth was reached, a PVC monitoring well was installed in the boring using 10-foot prepacked screens placed immediately above the clay bottom of the impoundments. After development, porewater samples were collected from each monitoring well and submitted for total and dissolved phase analysis of the Appendix IV constituents (see Appendix G). This information along with the volume, porosity and bulk density estimates were used to approximate the quantity of material.

The Dallman Ash Pond has approximately 1,523,073 cubic yards (1,164,000 m^3) and Lakeside Ash Pond has approximately 841,200 cubic yards (643,144 m^3) of in place CCR, a mixture of fly ash and bottom ash. The sluicing process homogenizes particle distribution and the post-settlement stratification, and consolidation decreases the CCR mixture porosity and increases the bulk density.

Studies of sluiced CCR in surface impoundments, which represent mixtures of fly ash and bottom ash, indicate that these materials exhibit porosities generally between 0.47 and 0.65 and dry unit weights ranging from 10.8 to 17.0 kN/m^3. Converting these dry unit weights to bulk densities yields values between approximately 1,100 kg/m^3 and 1,730 kg/m^3. Field data obtained by Tan et al. (2022)[7] from twelve undisturbed impoundment samples show individual sample porosities (θ) from 0.44 to 0.65 and corresponding dry unit weights (γ_n) of 10.8–17.0 kN/m^3, reflecting normally consolidated, sandy-silt-like behavior in situ.

[7] *Tan, Y., Basantis, A., Benson, C. H., & Chen, J. N. (2022). "Hydraulic Properties of Sluiced Coal Combustion Products Disposed in Impoundments." Geo-Congress 2022, 335, 505–517.*

These values are supported by laboratory-simulated impoundment tests (EPRI 2012)[8] reporting bulk densities near 1,000–1,200 kg/m³. For context, individual ash properties reported by IEA Clean Coal Centre (2008)[9] show porosity ranges of 0.40–0.50 for fly ash and 0.25–0.40 for bottom ash, but mixed, sluiced CCR exhibits somewhat higher porosities due to fines content and natural consolidation.

Based on regression analyses presented by Tan et al. (2022), "typical" impoundment-scale hydraulic properties correspond to:

- Typical Porosity: $\theta \approx 0.50$ (50 %), and
- Typical Dry Unit Weight: $\gamma_n \approx 12$ kN/m³ (≈ 1,224 kg/m³)

These values are most representative of impoundment CCRs for when site-specific data are unavailable. In the calculations below, the dry unit weight is assumed to represent the bulk density.

6.1 Antimony

The mass of antimony leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Antimony

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	0.0035	0.0078	0.0141	0.0273	0.0029	0.007	0.0034	0.024	0.0029	0.0273	0.0113
TCLP	mg/L	0.017	0.0237	0.0163	0.0125	0.0178	0.0197	0.0395	0.0376	0.0125	0.0395	0.0230

The porewater volume of the surface impoundment is:

$$V_{porewater} = \text{Total Impoundment Volume} \times \theta$$

$$= 1{,}164{,}000\ m^3 \times 0.50 = 582{,}000\ m^3 = 582{,}000{,}000\ L$$

Using an average concentration (0.0113 mg/L) the total mass of antimony is:

$$\text{Mass of Antimony} = \text{Average Antimony Concentration} \times V_{porewater}$$

$$= 0.0113\ mg/L \times 582{,}000{,}000\ L = 6.58\ kg$$

[8] *Electric Power Research Institute (EPRI). (2012). "Laboratory-Simulated Coal Combustion Product (CCP) Impoundment Tests."*

[9] *IEA Clean Coal Centre. (2008). Management of Coal Combustion Wastes (CCC/231).*

Conservative estimate using the maximum concentration (0.0273 mg/L) is:

= 0.0273 mg/L x 582,000,000 L = 15.9 kg

Using bulk density ($\rho_b = \frac{mass\ of\ ash}{total\ volume}$) the total ash mass in the surface impoundment is:

$M_{ash} = V_{surface\ impoundment} \times \rho_b$

= 1,164,000 m^3 x 1,224 kg/m^3 = 1,424,736,000 kg = 1.42 million metric tons

The average and maximum antimony leaching rate per metric ton of ash is:

Antimony Leached = Total Antimony Mass / Total Ash Mass

= 6.58 kg / 1,424,736 metric tons = 0.00462 g Antimony/metric ton ash

= 15.9 kg / 1,424,736 metric tons = 0.0112 g Antimony/metric ton ash

Dallman Ash Pond - Porewater Results – Antimony, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	J 0.061	J 0.024	0.23	0.0812	0.024	0.23	0.09905
Dissolved	mg/L	7/19/24	0.0025	0.0044	0.0034	0.0021	0.0021	0.0044	0.0031
Total	mg/L	7/19/24	0.0026	0.0058	0.0047	0.0059	0.0026	0.0059	0.00475

Note:
J - Analyte detected below quantitation limits

Using average porewater data for antimony, dissolved, the total mass is:

Mass of Antimony = Average Antimony Concentration x $V_{porewater}$

= 0.0031 mg/L x 582,000,000 L = 1.8 kg

Conservative estimate using the maximum concentration (0.0059 mg/L) is:

= 0.0044 mg/L x 582,000,000 L = 2.56 kg

The average and maximum antimony leaching rate per metric ton of ash is:

= 1.8 kg / 1,424,736 metric tons = 0.00127 g Antimony/metric ton ash

= 2.56 kg / 1,424,736 metric tons = 0.00180 g Antimony/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Antimony

Parameter	SPLP	Porewater
Average Antimony Concentration	0.0113 mg/L	0.0031 mg/L
Total Antimony Mass	6.58 kg	1.80 kg

The concentrations of antimony, dissolved, in the porewater sample are approximately 73% lower compared to SPLP results (0.0031mg/L vs. 0.0113 mg/L). The total antimony mass in porewater is 1.8-2.56 kg, significantly lower than SPLP-derived estimates (6.58-15.9 kg).

The significant difference between SPLP-derived antimony estimates (6.58-15.9 kg) and actual porewater measurements (1.8-2.56 kg) stems from fundamental contrasts between laboratory leaching tests and in-situ geochemical conditions. The SPLP test's acidic environment (pH 4.2) aggressively mobilizes antimony by dissolving weakly bound fractions and oxidizing Sb(III) to highly soluble Sb(V) (antimonate). This creates a "worst-case" leaching scenario that overestimates field conditions.

In contrast, the alkaline, reducing environment within the ash pond (pH ~8-12) promotes antimony retention through two key mechanisms: First, reducing conditions stabilize antimony as Sb(III) (antimonite), which strongly adsorbs to abundant iron oxide surfaces in the ash. Second, the high pH enhances Sb(III) adsorption onto mineral phases while simultaneously limiting mineral dissolution. These processes collectively suppress antimony solubility in the actual porewater, resulting in 73% lower dissolved concentrations than SPLP predictions.

Regarding mobility, antimony's behavior under current pond conditions is relatively constrained. The dominant Sb(III) species exhibits low mobility due to its affinity for iron oxides and the advection-dominated flow regime. However, this could change if environmental conditions shift: Oxidation during pond decommissioning could convert Sb(III) to mobile Sb(V), while acidic groundwater intrusion could dissolve sorbed fractions. The primary transport risk remains advective movement of Sb(V) rather than diffusion, given the low concentration gradients observed. Monitoring redox transitions and maintaining alkaline conditions are thus critical for long-term management.

Lakeside Ash Pond - SPLP/TCLP Results – Antimony

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	0.0114	0.0012	0.0054	0.0037	J 0.0009	0.0067	0.0025	0.0009	0.0114	0.0045
TCLP	mg/L	0.0019	0.0064	0.0066	0.0024	0.0012	0.0072	0.0017	0.0012	0.0072	0.0039

The porewater volume of the surface impoundment is:

= 643,144 m^3 x 0.50 = 351,572 m^3 = 351,572,000 L

Using an average concentration (0.0045 mg/L) the total mass of antimony is:

= 0.0045 mg/L x 351,572,000 L = 1.58 kg

Conservative estimate using the maximum concentration (0.0114 mg/L) is:

= 0.0114 mg/L x 351,572,000 L = 4.01 kg

Using bulk density, the total ash mass in the surface impoundment is:

= 351,572 m^3 x 1,224 kg/m^3 = 430,324,128 kg = 0.430 million metric tons

The average and maximum antimony leaching rate per metric ton of ash is:

= 1.58 kg / 430,324 metric tons = 0.00367 g Antimony/metric ton ash

= 4.01 kg / 430,324 metric tons = 0.00932 g Antimony/metric ton ash

Lakeside Ash Pond - Porewater Results – Antimony, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	BJ 0.027	B 0.0655	0.002	<B 0.1	0.002	0.1	0.0486
Dissolved	mg/L	7/19/24	< 0.001	J 0.001	0.0025	0.0014	0.001	0.0025	0.00148
Total	mg/L	7/19/24	0.0011	J 0.0008	0.0051	J 0.0009	0.0008	0.0051	0.00198

Note:
B - Analyte detected in associated Method Blank
J - Analyte detected below quantitation limits

Using average porewater data for antimony, dissolved, the total mass is:

= 0.00148 mg/L x 351,572,000 L = 0.520 kg

Conservative estimate using the maximum concentration (0.0025 mg/L) is:

= 0.0025 mg/L x 351,572,000 L = 0.879 kg

The average and maximum antimony leaching rate per metric ton of ash is:

= 0.520 kg / 430,324 metric tons = 0.00121 g Antimony/metric ton ash

= 0.879 kg / 430,324 metric tons = 0.00204 g Antimony/metric ton ash

Comparison of the average porewater result with the average SPLP estimate:

Lakeside Ash Pond - Results Comparison – Antimony

Parameter	SPLP	Porewater
Average Antimony Concentration	0.0045 mg/L	0.00148 mg/L
Total Antimony Mass	1.58 kg	0.520 kg

The concentrations of antimony, dissolved, in the porewater sample are approximately 67% lower compared to SPLP results (0.00148 mg/L vs. 0.0045 mg/L). The total antimony mass in porewater is 0.52-0.879 kg, significantly lower than SPLP-derived estimates (1.58-4.01 kg).

Similar to the Dallman Ash Pond, the significant differences between SPLP-derived and porewater antimony concentrations in Lakeside Ash Pond reflect fundamental distinctions between leaching potential (SPLP) and in-situ equilibrium (porewater), controlled by site-specific geochemistry. See discussion above.

6.2 Arsenic

The mass of arsenic leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Arsenic

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	< 0.01	0.0471	< 0.01	0.039	< 0.01	0.0173	< 0.01	0.0114	0.01	0.0471	0.0194
TCLP	mg/L	< 0.01	0.0528	0.0505	0.345	< 0.01	0.0155	< 0.01	0.0242	0.01	0.345	0.0648

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.0194 mg/L) the total mass of arsenic is:

= 0.0194 mg/L x 582,000,000 L = 11.3 kg

Conservative estimate using the maximum concentration (0.0471 mg/L) is:

= 0.0471 mg/L x 582,000,000 L = 27.4 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum arsenic leaching rate per metric ton of ash is:

= 11.3 kg / 1,424,736 metric tons = 0.00793 g Arsenic/metric ton ash

= 27.4 kg / 1,424,736 metric tons = 0.0192 g Arsenic/metric ton ash

Dallman Ash Pond - Porewater Results – Arsenic, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	1.17	0.279	2.33	0.378	0.279	2.33	1.04
Dissolved	mg/L	7/19/24	0.0829	0.111	0.0797	0.0231	0.0231	0.111	0.0742
Total	mg/L	7/19/24	0.171	0.16	0.104	0.0629	0.0629	0.171	0.124

Using average porewater data for arsenic, dissolved, the total mass is:

= 0.124 mg/L x 582,000,000 L = 43.2 kg

Conservative estimate using the maximum concentrations (0.171 mg/L) is:

= 0.171 mg/L x 582,000,000 L = 64.6 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum arsenic leaching rate per metric ton of ash is:

= 43.2 kg / 1,424,736 metric tons = 0.0303 g Arsenic/metric ton ash

= 64.6 kg / 1,424,736 metric tons = 0.0453 g Arsenic/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Arsenic

Parameter	SPLP	Porewater
Average Arsenic Concentration	0.0194 mg/L	0.0742 mg/L
Total Arsenic Mass	11.3 kg	43.2 kg

The concentrations of arsenic in the SPLP sample are approximately 74% lower compared to porewater results (0.0194 mg/L vs. 0.0742mg/L). The total arsenic mass in porewater is 43.2-64.6 kg, significantly higher than SPLP-derived estimates (11.3-27.4 kg). This reversal of the typical pattern (where SPLP often over predicts leaching) occurs due to arsenic's unique geochemical behavior under alkaline, reducing conditions within the ash pond.

Arsenic may be more mobile under oxidizing and alkaline conditions (common in porewater) but less mobile under acidic SPLP conditions. The higher arsenic concentrations in porewater suggest site conditions (i.e., high pH or reducing conditions) favor arsenic mobility, which SPLP does not characterize well.

Under alkaline oxidizing conditions typical of CCR porewater, arsenic is present primarily as arsenate (AsO_4^{3-}), a negatively charged oxyanion. Arsenate is poorly sorbed under high pH conditions, especially when competing anions (e.g., phosphate, sulfate) are present, allowing it to remain dissolved and mobile.

The observed difference in arsenic concentrations between porewater and SPLP leachate can be attributed to key differences in geochemical conditions, test methodology, and material interaction timeframes.

Field conditions in saturated ash impoundments often become anaerobic (reducing conditions) over time. Under reducing conditions, arsenic associated with iron oxides released into solution as ferric iron (Fe^{3+}) is reduced to ferrous iron (Fe^{2+}), dissolving iron hydroxide minerals and mobilizing arsenic, particularly arsenite (As^{3+}). SPLP, in contrast, is an aerobic laboratory procedure and does not simulate this reductive dissolution process.

Porewater in CCR surface impoundments commonly exhibits elevated pH (>8) (i.e., alkaline conditions), due to the presence of alkaline ash components. At higher pH, arsenate (As^{5+}) sorption to mineral surfaces (e.g., iron oxides or aluminosilicates) is reduced, increasing arsenic mobility. SPLP extraction fluid is mildly acidic (pH 4.2–4.8), favoring stronger sorption of arsenic and thus lower leachate concentrations.

Porewater represents long-term equilibrium conditions that allow for extended interaction between the ash and pore fluids. Over time, arsenic may desorb from solid phases or be released from the dissolution of arsenic-bearing minerals. SPLP is a short-duration test (18 hours) that does not fully capture these long-term processes.

The SPLP procedure uses a 20:1 liquid-to-solid ratio, which dilutes the leachate and may underestimate field concentrations. In contrast, porewater samples are collected under in-situ moisture conditions, often resulting in higher solute concentrations.

Porewater may contain competing anions such as phosphate, bicarbonate, or silicate, which can displace arsenic from mineral sorption sites. These constituents are typically absent or at low concentrations in SPLP extraction fluid, further limiting their ability to replicate in-situ arsenic mobility.

The higher arsenic concentration observed in porewater relative to SPLP leachate is consistent with the expected influence of site-specific geochemical conditions, including reducing redox states, alkaline pH, extended interaction time, and the presence of competing ions. These factors enhance arsenic mobility under field conditions and are not fully replicated by the SPLP test method.

Regarding mobility, arsenic's behavior is highly sensitive to two site conditions. The mobility peaks in alkaline environments (current pond conditions) and reducing conditions maintain mobile As-III. These factors currently promote arsenic mobility within the impoundment. However, advection remains the dominant transport mechanism given the low concentration gradients.

Lakeside Ash Pond - SPLP/TCLP Results – Arsenic

		L1	L1	L3	L3	L4	L5	L5			
Method	Units	14.5-21.5	24.5-31.5	19.5-21.5	29.5-32.7	10-15.3	19.5-21.5	32.5-35.2	Min	Max	Avg
SPLP	mg/L	0.0276	< 0.01	0.0195	< 0.01	< 0.01	0.0331	< 0.01	0.01	0.0331	0.0172
TCLP	mg/L	< 0.01	< 0.01	0.0279	0.0337	< 0.01	0.0276	< 0.01	0.01	0.0337	0.0185

The porewater volume of the surface impoundment is 351,572,000 L. Using an average concentration (0.0172 mg/L) the total mass of arsenic is:

= 0.0172 mg/L x 351,572,000 L = 6.05 kg

Conservative estimate using the maximum concentration (0.0331 mg/L) is:

= 0.0331 mg/L x 351,572,000 L = 11.6 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum arsenic leaching rate per metric ton of ash is:

= 6.05 kg / 430,324 metric tons = 0.0141 g Arsenic/ metric ton ash

= 11.6 kg / 430,324 metric tons = 0.0270 g Arsenic/metric ton ash

Lakeside Ash Pond - Porewater Results – Arsenic, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	0.717	2.43	0.0512	2.58	0.0512	2.58	1.44
Dissolved	mg/L	7/19/24	0.0076	0.0142	0.185	0.0217	0.0076	0.185	0.0571
Total	mg/L	7/19/24	0.0139	0.0328	0.453	0.0473	0.0139	0.453	0.137

Using average porewater data for arsenic, dissolved, the total mass is:

= 0.0571 mg/L x 351,572,000 L = 20.1 kg

Conservative estimate using the maximum concentration (0.185 mg/L) is:

= 0.185 mg/L x 351,572,000 L = 65.0 kg

Based upon the total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum arsenic leaching rate per metric ton of ash is:

= 20.1 kg / 430,324 metric tons = 0.0467 g Arsenic/metric ton ash

= 65.0 kg / 430,324 metric tons = 0.151 g Arsenic/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Arsenic

Parameter	SPLP	Porewater
Average Arsenic Concentration	0.0172 mg/L	0.0571 mg/L
Total Arsenic Mass	6.05 kg	20.1 kg

The concentrations of arsenic in the SPLP sample are approximately 70% lower compared to porewater results (0.0172 mg/L vs. 0.0571 mg/L). The total arsenic mass in porewater is 20.1-65.0 kg, significantly higher than SPLP-derived estimates (6.05-11.6 kg). These results are similar to the Dallman Ash Pond SPLP and porewater analytical results. See discussion above.

6.3 Barium

The mass of barium leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Barium

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	< 0.045	< 0.045	J 0.021	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	0.021	0.045	0.042
TCLP	mg/L	0.358	0.514	0.556	0.352	0.492	0.373	0.238	0.287	0.238	0.556	0.396

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.042 mg/L) the total mass of barium is:

= 0.042 mg/L x 582,000,000 L = 24.4 kg

Conservative estimate using the maximum concentration (0.045 mg/L) is:

= 0.045 mg/L x 582,000,000 L = 26.2 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum barium leaching rate per metric ton of ash is:

= 24.4 kg / 1,424,736 metric tons = 0.0171 g Barium/metric ton ash

= 26.2 kg / 1,424,736 metric tons = 0.0184 g Barium/metric ton ash

Dallman Ash Pond - Porewater Results – Barium, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	2.48	1.13	3.51	0.975	0.975	3.51	2.02
Dissolved	mg/L	7/19/24	0.0541	0.0376	0.0676	0.0843	0.0376	0.0843	0.0609
Total	mg/L	7/19/24	0.118	0.0997	0.0823	0.186	0.0823	0.186	0.122

Using average porewater data for barium, dissolved, the total mass is:

= 0.0609 mg/L x 582,000,000 L = 35.4 kg

Conservative estimate using the maximum concentrations (0.0843mg/L) is:

= 0.0843 mg/L x 582,000,000 L = 49.1 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum barium leaching rate per metric ton of ash is:

= 35.4 kg / 1,424,736 metric tons = 0.0249 g Barium/metric ton ash

= 49.1 kg / 1,424,736 metric tons = 0.0344 g Barium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Barium

Parameter	SPLP	Porewater
Average Barium Concentration	0.042 mg/L	0.0609 mg/L
Total Barium Mass	24.4 kg	35.4 kg

The concentrations of barium in the SPLP sample are approximately 31% lower compared to porewater results (0.042 mg/L vs. 0.0609 mg/L). The total barium mass in porewater is 35.4-49.1 kg, significantly higher than SPLP-derived estimates (24.4-26.2 kg).

The higher barium concentrations in Dallman Ash Pond's porewater compared to SPLP results arise from geochemical interactions specific to alkaline CCR environments and methodological limitations of leaching tests. Three factors drive this discrepancy.

The SPLP's acidic leachant (pH 4.2 ± 0.5) contains elevated sulfate (SO_4^{2-}) from simulated rainwater. This promotes barite ($BaSO_4$) precipitation, sequestering dissolved barium during testing—a process absent in the sulfate-limited, alkaline porewater (pH 8–12).

Natural bicarbonate (HCO_3^-) in the pond porewater complexes Ba^{2+}, increasing solubility. In contrast, SPLP's low-pH environment lacks sufficient alkalinity to offset barite formation.

High calcium (Ca^{2+}) and magnesium (Mg^{2+}) in CCR porewater compete with Ba^{2+} for sorption sites, further elevating dissolved concentrations unaccounted for in SPLP's simplified chemistry.

Barium mobility is primarily controlled by sulfate availability and pH. In the ash pond's low-sulfate, alkaline setting, barium remains relatively mobile as dissolved Ba^{2+} or bicarbonate complexes. However, its migration downgradient may self-limit if sulfate-rich groundwater is encountered, triggering barite precipitation. Advection governs transport given the pond's sandy-silt hydrology, but the risk of barium spreading is constrained by its strong affinity for sulfate unlike more mobile CCR constituents (e.g., boron).

The porewater's 35.4–49.1 kg Ba mass (vs. SPLP's 24.4–26.2 kg) confirms SPLP under predicts barium solubility in alkaline impoundments. Site-specific porewater data better reflects actual leaching risk, though long-term stability depends on preventing sulfate influx or acidic shifts that could immobilize or remobilize barium, respectively.

Lakeside Ash Pond - SPLP/TCLP Results – Barium

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	< 0.045	J 0.026	J 0.028	J 0.0076	0.185 0.0571	0.0596	J 0.023	**0.0076**	**0.0596**	**0.0352**
TCLP	mg/L	0.345	0.172	0.635	0.0139	0.453 0.137	0.574	1.24	0.0139	1.24	0.445

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 351,572,000 L. Using an average concentration (0.0352 mg/L) the total mass of barium is:

= 0.0352 mg/L x 351,572,000 L = 12.4 kg

Conservative estimate using the maximum concentration (0.0331 mg/L) is:

= 0.0596 mg/L x 351,572,000 L = 21.0 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum barium leaching rate per metric ton of ash is:

= 12.4 kg / 430,324 metric tons = 0.0288 g Barium/metric ton ash

= 21.0 kg / 430,324 metric tons = 0.0488 g Barium/metric ton ash

Lakeside Ash Pond - Porewater Results – Barium, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	3.48	1.49	0.308	1.6	0.308	3.48	1.72
Dissolved	mg/L	7/19/24	0.13	0.0912	0.101	0.0523	0.0523	0.13	0.0936
Total	mg/L	7/19/24	0.161	0.128	0.497	0.0877	0.0877	0.497	0.218

Using average porewater data for barium, dissolved, the total mass is:

= 0.0936 mg/L x 351,572,000 L = 32.9 kg

Conservative estimate using the maximum concentration (0.13 mg/L) is:

= 0.13 mg/L x 351,572,000 L = 45.7 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum barium leaching rate per metric ton of ash is:

= 32.9 kg / 430,324 metric tons = 0.0765 g Barium/metric ton ash

= 45.7 kg / 430,324 metric tons = 0.106 g Barium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Barium

Parameter	SPLP	Porewater
Average Barium Concentration	0.0352 mg/L	0.0936 mg/L
Total Barium Mass	12.4 kg	32.9 kg

The concentrations of barium in the SPLP sample are approximately 62% lower compared to porewater results (0.0352 mg/L vs. 0.0936 mg/L). The total barium mass in porewater is 32.9-45.7 kg, significantly higher than SPLP-derived estimates (12.4-21 kg). These results are similar to the Dallman Ash Pond SPLP and porewater analytical results. See discussion above.

6.4 Beryllium

The mass of beryllium leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Beryllium

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	< 0.001	J 0.0002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0002	0.001	0.0009
TCLP	mg/L	0.0145	0.0085	0.0231	J 0.0002	0.0114	0.0113	0.0056	0.0012	0.0002	0.0231	0.00948

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.0009 mg/L) the total mass of beryllium is:

= 0.0009 mg/L x 582,000,000 L = 0.524 kg

Conservative estimate using the maximum concentration (0.001 mg/L) is:

= 0.001 mg/L x 582,000,000 L = 0.582 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum beryllium leaching rate per metric ton of ash is:

= 0.524 kg / 1,424,736 metric tons = 0.000368 g Beryllium/metric ton ash

= 0.582 kg / 1,424,736 metric tons = 0.000409 g Beryllium/metric ton ash

Dallman Ash Pond - Porewater Results – Beryllium, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	0.254	0.064	0.439	0.0674	0.064	0.439	0.206
Dissolved	mg/L	7/19/24	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0005	0.0005	0.0005
Total	mg/L	7/19/24	0.002	0.0035	0.001	0.0056	0.001	0.0056	0.00303

The dissolved boron concentrations were reported as non-detect (<0.0005 mg/L) for all sampling events. Using the dissolved beryllium non-detect value, the total mass is:

= 0.0005 mg/L x 582,000,000 L = 0.291 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum beryllium leaching rate per metric ton of ash is:

= 0.291 kg / 1,424,736 metric tons = 0.000204 g Beryllium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Beryllium

Parameter	SPLP	Porewater
Average Beryllium Concentration	0.0009 mg/L	0.0005 mg/L
Total Beryllium Mass	0.524 kg	0.291 kg

The concentrations of beryllium in the porewater sample are approximately 44% lower compared to SPLP results (0.0005 mg/L vs 0.0009 mg/L). The total beryllium mass in SPLP-derived estimates (0.524-0.582 kg) is higher than determined for porewater (0.291 kg).

The slightly higher SPLP-derived mass (0.524 kg vs. 0.291 kg) stems from its aggressive extraction of weakly adsorbed beryllium (Be) fractions, but the absolute difference remains small (<0.3 kg total). Both methods confirm beryllium poses minimal groundwater risk due to its extreme attenuation, consistent with its rarity as a contaminant of concern at CCR sites.

The minimal Be concentrations in both Dallman Ash Pond porewater and SPLP leachate reflect its strong geochemical immobilization, though subtle differences arise from testing conditions. Three factors explain the near-identical mass estimates.

Beryllium exhibits lowest solubility near pH 6–8. The ash pond's alkaline porewater (pH 8–12) promotes hydrolysis to insoluble $Be(OH)_2$ or $Be(OH)_3^-$, while SPLP's acidic environment (pH 4.2) slightly enhances dissolution via Be^{2+} formation, though still limited by adsorption.

Be sorbs strongly to Al/Fe/Mn oxides, clay minerals, and organic matter in ash. At high pH, it forms stable surface complexes (e.g., ≡FeO–$BeOH^+$), reducing dissolved concentrations. SPLP's low pH partially disrupts this, explaining its marginally higher detection limit but still negligible release.

Be likely exists as refractory mineral phases (e.g., bertrandite) or substituted in silicate matrices, resisting dissolution in both natural and acidic conditions.

Beryllium is inherently immobile in CCR environments due to adsorption affinity (high K_d > 10³ L/kg), low solubility in alkaline systems, and limited redox sensitivity. Its migration is restricted to short distances via advection, with precipitation or adsorption likely trapping it near source zones. No significant plume formation is expected.

Lakeside Ash Pond - SPLP/TCLP Results – Beryllium

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001	0.001	0.001
TCLP	mg/L	J 0.0007	0.0015	< 0.001	0.0054	< 0.001	0.0049	< 0.001	0.0007	0.0054	0.00221

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 351,572,000 L. Beryllium concentrations were non-detect (<0.001 mg/L) for all SPLP samples. Using detection limit value (0.001 mg/L) the total mass of beryllium is:

= 0.001 mg/L x 351,572,000 L = 0.352 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the beryllium leaching rate per metric ton of ash is:

= 0.352 kg / 430,324 metric tons = 0.000818 g Beryllium/metric ton ash

Lakeside Ash Pond - Porewater Results – Beryllium, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	0.0542	0.102	0.0024	0.0911	0.0024	0.102	0.0624
Dissolved	mg/L	7/19/24	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0005	0.0005	0.0005
Total	mg/L	7/19/24	J 0.0003	J 0.0004	0.0045	0.0005	0.0003	0.0045	0.00143

Note:
J - Analyte detected below quantitation limits

The dissolved boron concentrations were reported as non-detect (<0.0005 mg/L) for all sampling events. Using the dissolved beryllium non-detect value, the total mass is:

= 0.0005 mg/L x 351,572,000 L = 0.176 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum beryllium leaching rate per metric ton of ash is:

= 0.176 kg / 430,324 metric tons = 0.000408 g Beryllium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Beryllium

Parameter	SPLP	Porewater
Average Beryllium Concentration	0.001 mg/L	0.0005 mg/L
Total Beryllium Mass	0.352 kg	0.176 kg

The non-detect concentrations of beryllium in the porewater sample are approximately 50% lower compared to porewater results (0.0005 mg/L vs 0.001 mg/L). The total beryllium mass in SPLP samples (0.352 kg), is higher than porewater derived estimates (0.176 kg). These results are similar to the Dallman Ash Pond SPLP and porewater analytical results. See discussion above.

6.5 Cadmium

The mass of cadmium leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Cadmium

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.002	0.002	0.002
TCLP	mg/L	0.0293	0.0706	0.0638	< 0.002	0.0302	0.0475	0.0422	0.0063	0.002	0.0706	0.0365

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.002 mg/L) the total mass of cadmium is:

= 0.002 mg/L x 582,000,000 L = 1.16 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average cadmium leaching rate per metric ton of ash is:

= 1.16 kg / 1,424,736 metric tons = 0.000814 g Cadmium/metric ton ash

Dallman Ash Pond - Porewater Results – Cadmium, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	**mg/L**	4/29/24	0.222	0.0541	0.492	J 0.068	0.0541	0.492	0.209
Dissolved	**mg/L**	7/19/24	< 0.002	< 0.002	< 0.002	< 0.002	0.002	0.002	0.002
Total	**mg/L**	7/19/24	J 0.0016	J 0.0014	< 0.002	0.0035	0.0014	0.0035	0.00213

Note:
J - Analyte detected below quantitation limits

Cadmium concentrations were non-detect (<0.002 mg/L) for all samples. Using detection limit value (0.002 mg/L) the total mass of cadmium is:

= 0.002 mg/L x 582,000,000 L = 1.16 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum cadmium leaching rate per metric ton of ash is:

= 1.16 kg / 1,424,736 metric tons = 0.000817 g Cadmium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Cadmium

Parameter	SPLP	Porewater
Average Cadmium Concentration	0.002 mg/L	0.002 mg/L
Total Cadmium Mass	1.16 kg	1.16 kg

The concentrations of cadmium in the SPLP sample are in agreement with porewater results (0.002 mg/L vs. 0.002 mg/L). The total cadmium mass in porewater is 1.16 kg the same as the SPLP-derived estimate (1.16 kg).

The agreement between SPLP and porewater cadmium results in Dallman Ash Pond—both below detection (<0.002 mg/L) with identical mass estimates stems from cadmium's geochemical behavior in coal ash systems. Cadmium solubility is primarily controlled by pH-dependent adsorption and precipitation. In SPLP's acidic environment (pH 4.2), cadmium might be expected to mobilize as Cd^{2+}, but its strong affinity for iron oxides, clay minerals, and organic matter in ash promotes retention. Conversely, the alkaline porewater (pH 8–12) favors cadmium precipitation as insoluble carbonates (e.g., $CdCO_3$) or hydroxides, while also enhancing adsorption onto mineral surfaces. These opposing mechanisms, low-pH adsorption versus high-pH precipitation, converge to limit solubility across both environments.

Cadmium mobility is further suppressed by its tendency to form stable complexes with sulfides (e.g., CdS) under reducing conditions, which likely exist in submerged ash. The low concentrations indicate minimal dissolved cadmium, reflecting effective attenuation regardless of testing conditions. In groundwater, cadmium's mobility would be constrained by three key factors: (1) pH extremes that trigger precipitation/adsorption, (2) the presence of sorbents (Fe/Al oxides, carbonates), and (3) sulfide availability that immobilizes it as insoluble precipitates. This results in limited transport potential, confining cadmium plumes to narrow zones near sources unless acidic or low-sulfide conditions prevail. The consistency between SPLP and porewater data confirms cadmium's low leaching risk in this setting.

Lakeside Ash Pond - SPLP/TCLP Results – Cadmium

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.002	0.002	0.002
TCLP	mg/L	0.0045	0.0045	0.0154	0.0397	< 0.002	0.149	0.0022	0.002	0.149	0.0310

The porewater volume of the surface impoundment is 351,572,000 L. Using an average concentration (0.002 mg/L) the total mass of cadmium is:

= 0.002 mg/L x 351,572,000 L = 0.703 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average cadmium leaching rate per metric ton of ash is:

= 0.703 kg / 430,324 metric tons = 0.00163 g Cadmium/metric ton ash

Lakeside Ash Pond - Porewater Results – Cadmium, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	0.0776	0.26	0.0019	0.296	0.0019	0.296	0.159
Dissolved	mg/L	7/19/24	< 0.002	< 0.002	< 0.002	< 0.002	0.002	0.002	0.002
Total	mg/L	7/19/24	< 0.002	< 0.002	0.0097	< 0.002	0.002	0.0097	0.00393

Cadmium concentrations were non-detect (<0.002 mg/L) for all samples. Using the detection limit value (0.002 mg/L) the total mass of cadmium is:

= 0.002 mg/L x 351,572,000 L = 0.703 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum cadmium leaching rate per metric ton of ash is:

= 0.703 kg / 430,324 metric tons = 0.00163 g Cadmium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Cadmium

Parameter	SPLP	Porewater
Average Cadmium Concentration	0.002 mg/L	0.002 mg/L
Total Cadmium Mass	0.703 kg	0.703 kg

Similar to the Dallman Ash Pond results, the concentrations of cadmium in the SPLP sample are the same for porewater results (0.002 mg/L vs. 0.002 mg/L). The total cadmium mass in porewater

is 0.703 kg, the same as the SPLP-derived estimate (0.703 kg). These results are similar to the Dallman Ash Pond SPLP and porewater analytical results. See discussion above.

6.6 Chromium

The mass of chromium leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Chromium

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	J 0.0049	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.0049	0.01	0.00936
TCLP	mg/L	0.105	0.0707	0.116	< 0.01	0.0692	0.0438	0.0151	< 0.01	0.01	0.116	0.0550

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.00936 mg/L) the total mass of chromium is:

= 0.00936 mg/L x 582,000,000 L = 5.45 kg

Conservative estimate using the maximum concentration (0.01 mg/L) is:

= 0.01 mg/L x 582,000,000 L = 5.82 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum chromium leaching rate per metric ton of ash is:

= 5.45 kg / 1,424,736 metric tons = 0.00383 g Chromium/metric ton ash

= 5.82 kg / 1,424,736 metric tons = 0.00408 g Chromium/metric ton ash

Dallman Ash Pond - Porewater Results – Chromium, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	3.91	0.902	6.25	1.03	0.902	6.25	3.02
Dissolved	mg/L	7/19/24	< 0.005	< 0.005	< 0.005	< 0.005	0.005	0.005	0.005
Total	mg/L	7/19/24	0.0277	0.0426	0.0121	0.0645	0.0121	0.0645	0.0367

Chromium concentrations were non-detect (<0.005 mg/L) for all samples. Using detection limit value (0.005 mg/L) the total mass of chromium is:

= 0.005 mg/L x 582,000,000 L = 2.91 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum chromium leaching rate per metric ton of ash is:

= 2.91 kg / 1,424,736 metric tons = 0.00204 g Chromium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Chromium

Parameter	SPLP	Porewater
Average Chromium Concentration	0.00936 mg/L	0.005 mg/L
Total Chromium Mass	5.45 kg	2.91 kg

The concentrations of chromium in the porewater sample are approximately 47% lower compared to SPLP results (0.005 mg/L vs. 00936 mg/L). The total chromium mass in SPLP-derived estimates (5.45-5.82 kg) is greater than the porewater-derived estimate (2.91 kg).

The lower chromium concentrations in Dallman Ash Pond's porewater compared to SPLP results reflect redox and pH-controlled geochemical processes unique to in situ conditions. SPLP's acidic, oxygenated environment (pH 4.2) promotes chromium mobilization as soluble Cr(VI) (chromate, $HCrO_4^-$), while the pond's alkaline and reducing conditions (pH 8–12; low Eh) reduce Cr(VI) to Cr(III). This reduction triggers precipitation as insoluble Cr(III) hydroxides [$Cr(OH)_3$] or coprecipitation with iron oxides, sharply limiting dissolved chromium in porewater. Adsorption of Cr(III) onto clay minerals and organic matter further suppresses mobility under alkaline conditions.

Chromium's mobility is governed by three interdependent factors. These are: 1) Cr(VI) is highly mobile; Cr(III) is immobile; 2) alkaline conditions favor Cr(III) precipitation but can remobilize Cr(VI) as oxyanions; and 3) iron oxides and clays permanently sequester Cr(III).

In groundwater, chromium's nature and extent would depend on redox stability. If reducing conditions persist, migration would be minimal (< meters). However, oxidation during pond dewatering or acidic recharge could convert Cr(III) to mobile Cr(VI), potentially forming elongated plumes. The SPLP overestimates current risk (5.45–5.82 kg vs. porewater's 2.91 kg) because it ignores the pond's natural attenuation capacity. Long-term monitoring of Eh/pH is essential to detect shifts that could liberate Cr(VI).

Lakeside Ash Pond - SPLP/TCLP Results – Chromium

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	0.01	0.01
TCLP	mg/L	< 0.01	< 0.01	< 0.01	0.0185	< 0.01	J 0.0082	< 0.01	0.0082	0.0185	0.0110

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 351,572,000 L. Chromium concentrations were non-detect (<0.01 mg/L) for all SPLP samples. Using detection limit value (0.01 mg/L) the total mass of chromium is:

= 0.01 mg/L x 351,572,000 L = 3.52 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the chromium leaching rate per metric ton of ash is:

= 3.52 kg / 430,324 metric tons = 0.00818 g Chromium/metric ton ash

Lakeside Ash Pond - Porewater Results – Chromium, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	0.993	2.08	0.0632	1.81	0.0632	2.08	1.24
Dissolved	mg/L	7/19/24	< 0.005	< 0.005	< 0.005	< 0.005	0.005	0.005	0.005
Total	mg/L	7/19/24	0.0053	0.0068	0.0773	0.0078	0.0053	0.0773	0.0243

Chromium concentrations were non-detect (<0.005 mg/L) for all samples. Using detection limit value (0.005 mg/L) the total mass of chromium is:

= 0.005 mg/L x 351,572,000 L = 1.76 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum chromium leaching rate per metric ton of ash is:

= 1.76 kg / 430,324 metric tons = 0.00409 g Chromium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Chromium

Parameter	SPLP	Porewater
Average Chromium Concentration	0.01 mg/L	0.005 mg/L
Total Chromium Mass	3.52 kg	1.76 kg

Similar to the Dallman Ash Pond results, the concentrations of chromium in the porewater sample are approximately 50% lower compared to SPLP results (0.005 mg/L vs 0.01 mg/L). The total chromium mass in the SPLP sample is 3.52 kg/L, greater than the porewater-derived estimate (1.76 kg). These results are similar to the Dallman Ash Pond SPLP and porewater analytical results. See discussion above.

6.7 Cobalt

The mass of cobalt leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Cobalt

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	0.006	0.006	0.006
TCLP	mg/L	0.0145	0.0116	0.0182	0.013	0.0118	J 0.0054	0.0107	0.0089	0.0054	0.0182	0.0118

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.006 mg/L) the total mass of cobalt is:

= 0.006 mg/L x 582,000,000 L = 3.49 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average cobalt leaching rate per metric ton of ash is:

= 3.49 kg / 1,424,736 metric tons = 0. 00245 g Cobalt/metric ton ash

Dallman Ash Pond - Porewater Results – Cobalt, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	0.241	0.0579	0.323	J 0.061	0.0579	0.323	0.170
Dissolved	mg/L	7/19/24	< 0.005	< 0.005	< 0.005	< 0.005	0.005	0.005	0.005
Total	mg/L	7/19/24	J 0.0029	J 0.0029	< 0.005	0.0062	0.0029	0.0062	0.00425

Note:
J - Analyte detected below quantitation limits

Cobalt concentrations were non-detect (<0.005 mg/L) for all samples. Using detection limit value (0.005 mg/L) the total mass of dissolved cobalt is:

= 0.005 mg/L x 582,000,000 L = 2.91 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum cobalt leaching rate per metric ton of ash is:

= 2.91 kg / 1,424,736 metric tons = 0.00204 g Cobalt/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Cobalt

Parameter	SPLP	Porewater
Average Cobalt Concentration	0.006 mg/L	0.005 mg/L
Total Cobalt Mass	3.49 kg	2.91 kg

The concentrations of cobalt, dissolved, in the porewater results are approximately 17% lower compared to SPLP samples (0.005 mg/L vs. 0.006 mg/L). The total cobalt mass in porewater is 2.91 kg, and the SPLP-derived estimate is 3.49 kg.

The close alignment between cobalt concentrations in Dallman Ash Pond's porewater and SPLP leachate reflects cobalt's consistent geochemical behavior across pH and redox gradients. Unlike redox-sensitive metals (e.g., Cr, As), cobalt solubility is primarily governed by pH-controlled precipitation and adsorption. In SPLP's acidic environment (pH 4.2), cobalt remains largely immobilized through adsorption onto Fe/Mn oxides and clay minerals. Conversely, in the pond's alkaline porewater (pH 8–12), cobalt precipitates as insoluble hydroxides ($Co(OH)_2$) or carbonates ($CoCO_3$), while also binding strongly to mineral surfaces. These parallel retention mechanisms, adsorption in acid, precipitation in alkali, converge to limit dissolved cobalt in both settings.

Cobalt mobility in groundwater is constrained by three key factors: 1) high K_d values (>500 L/kg) on Fe/Mn oxides, particularly in neutral-alkaline conditions; 2) precipitation as secondary minerals reduces dissolved concentrations; and 3) formation of immobile CoS in reducing zones.

These characteristics restrict cobalt plumes to short migration distances (<10–50 m typically), with sharp concentration declining downgradient. The minor mass difference likely stems from SPLP's partial dissolution of weakly adsorbed cobalt pools absent in porewater equilibrium. Overall, the agreement confirms cobalt's low leaching risk in CCR impoundments regardless of testing methodology, though slightly higher SPLP values appropriately represent a conservative leaching scenario for regulatory purposes.

Lakeside Ash Pond - SPLP/TCLP Results – Cobalt

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	0.006	0.006	0.006
TCLP	mg/L	J 0.0054	J 0.0033	0.0065	0.0161	0.0077	0.0218	J 0.0043	0.0033	0.0218	0.0093

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 351,572,000 L. Cobalt concentrations were non-detect (<0.006 mg/L) for all SPLP samples. Using detection limit value (0.006 mg/L) the total mass of cobalt is:

= 0.006 mg/L x 351,572,000 L = 2.11 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the cobalt leaching rate per metric ton of ash is:

= 2.11 kg / 430,324 metric tons = 0.00490 g Cobalt/metric ton ash

Lakeside Ash Pond - Porewater Results – Cobalt, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	0.154	0.336	0.0213	0.296	0.0213	0.336	0.202
Dissolved	mg/L	7/19/24	< 0.005	< 0.005	< 0.005	< 0.005	0.005	0.005	0.005
Total	mg/L	7/19/24	< 0.005	< 0.005	0.0194	< 0.005	0.005	0.0194	0.0086

Dissolved cobalt concentrations were non-detect (<0.005 mg/L) for all samples. Using detection limit value (0.005 mg/L) the total mass of dissolved cobalt is:

= 0.005 mg/L x 351,572,000 L = 1.76 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum barium leaching rate per metric ton of ash is:

= 1.76 kg / 430,324 metric tons = 0.00409 g Barium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Cobalt

Parameter	SPLP	Porewater
Average Cobalt Concentration	0.006 mg/L	0.005 mg/L
Total Cobalt Mass	2.11 kg	1.76 kg

The concentrations of cobalt in porewater are approximately 17% lower compared to SPLP derived results (0.005 mg/L vs. 0.006 mg/L). The total cobalt mass in SPLP-derived estimates is 2.11 kg, is slightly higher than porewater estimates (1.76 kg). These results are similar to the Dallman Ash Pond SPLP and porewater analytical results. See discussion above.

6.8 Fluoride

The mass of chromium leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the "Shake Extraction" and porewater analytical results.

The soil samples were analyzed for dissolved fluoride using ASTM D3987 (SW-846 Method 9036) "Shake Extraction." This method represents a water-based leaching scenario designed to simulate the dissolution of soluble constituents when solid materials come into contact with natural freshwater under mild agitation.

Dallman Ash Pond – Shake Extraction Results – Fluoride

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
Shake Extraction	mg/L	0.13	0.19	0.2	J 0.37	J 0.08	0.11	J 0.06	0.14	0.06	0.37	0.16

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.16 mg/L) the total mass of fluoride is:

= 0.16 mg/L x 582,000,000 L = 93.1kg

Conservative estimate using the maximum concentration (0.37 mg/L) is:

= 0.37 mg/L x 582,000,000 L = 215 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum fluoride leaching rate per metric ton of ash is:

= 93.1 kg / 1,424,736 metric tons = 0.0653 g Fluoride/metric ton ash

= 215 kg / 1,424,736 metric tons = 0.151 g Fluoride/metric ton ash

Dallman Ash Pond - Porewater Results – Fluoride, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	0.32	0.21	0.33	0.43	0.21	0.43	0.3225
Dissolved	mg/L	7/19/24	J 0.06	J 0.09	0.12	J 0.09	0.06	0.12	0.09
Total	mg/L	7/19/24	J 0.07	J 0.1	0.12	0.12	0.07	0.12	0.103

Note:
J - Analyte detected below quantitation limits

Using average porewater data for fluoride, dissolved, the total mass is:

= 0.09 mg/L x 582,000,000 L = 52.4 kg

Conservative estimate using the maximum concentrations (0.12 mg/L) is:

= 0.12 mg/L x 582,000,000 L = 69.8 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum fluoride leaching rate per metric ton of ash is:

= 52.4 kg / 1,424,736 metric tons = 0.0368 g Fluoride/metric ton ash

= 69.8 kg / 1,424,736 metric tons = 0.0490 g Fluoride/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Fluoride

Parameter	SPLP	Porewater
Average Fluoride Concentration	0.16 mg/L	0.09 mg/L
Total Fluoride Mass	93.1 kg	52.4 kg

The concentrations of fluoride, dissolved, in the porewater sample are approximately 44% lower compared to shake extraction samples (0.16 mg/L vs. 0.09 mg/L). The total fluoride mass in shake extraction results is 93.1-215 kg, significantly higher than porewater derived estimates (52.4-69.8 kg).

The lower fluoride concentrations in Dallman Ash Pond's porewater compared to shake extraction results (0.16 mg/L) arise from methodological and geochemical factors. Shake extraction's aggressive agitation and acidic pH (typically pH ~4–5) dissolve weakly bound fluoride from mineral phases like fluorapatite [$Ca_5(PO_4)_3F$] or adsorb onto aluminum/iron oxides, amplifying release. In contrast, the alkaline porewater (pH 8–12) enhances fluoride adsorption onto positively charged Fe/Al-oxide surfaces and promotes precipitation as CaF_2 (fluorite), suppressing dissolved concentrations.

Fluoride mobility in groundwater is governed by three key characteristics: 1) mobility peaks in acidic conditions (pH < 6) where OH^- competition is minimal; 2) higher Ca^{2+} promotes CaF_2 precipitation, immobilizing fluoride; and 3) fluorite controls long-term release, with dissolution favored by low Ca^{2+}/high CO_3^{2-}.

In this setting, alkaline porewater and abundant calcium in ash limit fluoride mobility, confining plumes near source zones. The shake extraction overestimates mass (93–215 kg vs. porewater's 53–70 kg) because it disrupts natural equilibrium, dissolving pools not readily available under field conditions. Actual groundwater impacts would depend on downgradient pH and calcium levels, with advection dominating transport but attenuation likely within short distances due to adsorption/precipitation.

Lakeside Ash Pond – Shake Extraction Results – Fluoride

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	0.37	0.21	0.2	0.2	0.42	0.36	J 0.08	0.08	0.42	0.263

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 351,572,000 L. Fluoride concentrations ranged from a trace amount of 0.08 mg/L to 0.42 mg/L. Using an average concentration (0.263 mg/L) the total mass of fluoride is:

= 0.263 mg/L x 351,572,000 L = 92.5 kg

Conservative estimate using the maximum concentration (0.42 mg/L) is:

= 0.42 mg/L x 351,572,000 L = 148 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the fluoride leaching rate per metric ton of ash is:

= 92.5 kg / 430,324 metric tons = 0.215 g Fluoride/metric ton ash

= 148 kg / 430,324 metric tons = 0.344 g Fluoride/metric ton ash

Lakeside Ash Pond - Porewater Results – Fluoride, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	0.5	1.07	1.19	1.32	0.5	1.32	1.02
Dissolved	mg/L	7/19/24	0.1	0.35	0.62	0.37	0.1	0.62	0.36
Total	mg/L	7/19/24	0.11	0.36	0.64	0.38	0.11	0.64	0.373

Using average porewater data for fluoride, dissolved, the total mass is:

= 0.36 mg/L x 351,572,000 L = 127 kg

Conservative estimate using the maximum concentration (0.62 mg/L) is:

= 0.62 mg/L x 351,572,000 L = 218 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum fluoride leaching rate per metric ton of ash is:

= 127 kg / 430,324 metric tons = 0.294 g Fluoride/metric ton ash

= 218 kg / 430,324 metric tons = 0.507 g Fluoride/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Fluoride

Parameter	SPLP	Porewater
Average Fluoride Concentration	0.263 mg/L	0.36 mg/L
Total Fluoride Mass	92.5 kg	127 kg

The concentrations of fluoride in the shake extraction sample are approximately 27% lower compared to porewater results (0.263 mg/L vs. 0.36 mg/L). The total fluoride mass in porewater is 127-218 kg, higher than shake extraction derived estimates (92.5-148 kg).

The higher fluoride concentrations in Lakeside Ash Pond's porewater compared to shake extraction results reflect pH-driven geochemical processes that suppress fluoride release in acidic leaching tests but enhance solubility in alkaline field conditions. Shake extraction's low-pH environment (typically pH 4–5) promotes fluoride adsorption onto positively charged mineral surfaces (e.g., Al-/Fe-oxides) and may trigger precipitation as CaF_2 if calcium is abundant in the leachant. Conversely, the pond's alkaline porewater (pH 8–12) generates negatively charged mineral surfaces that repel fluoride anions, while high bicarbonate concentrations compete for adsorption sites, collectively increasing dissolved fluoride.

Fluoride mobility is primarily controlled by three factors: 1) pH, which reverses adsorption behavior (immobile in acid, mobile in alkali); 2) calcium availability, where high Ca^{2+} induces fluorite precipitation; and 3) competing anions (e.g., HCO_3^-, SO_4^{2-}) that displace adsorbed fluoride.

In groundwater, fluoride plumes may extend farther in alkaline, low-calcium settings but will attenuate rapidly if downgradient conditions favor adsorption (pH < 6) or precipitation (high Ca^{2+}). The shake extraction underestimates mass (92.5–148 kg vs. porewater's 127–218 kg) because its artificial chemistry immobilizes fluoride through mechanisms not representative of in-situ alkalinity. This highlights the importance of porewater data for predicting actual contaminant flux, particularly where pH deviates from neutral.

6.9 Lead

The mass of lead leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Lead

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	0.0075	0.0075	0.0075
TCLP	mg/L	< 0.0075	0.0102	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	0.0075	0.0102	0.00784

The porewater volume of the surface impoundment is 582,000,000 L. Using the non-detect value (0.0075 mg/L) the total mass of lead is:

= 0.0075 mg/L x 582,000,000 L = 4.37 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum lead leaching rate per metric ton of ash is:

= 4.37 kg / 1,424,736 metric tons = 0.000307 g Lead/metric ton ash

Dallman Ash Pond - Porewater Results – Lead, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	1.04	0.199	1.46	0.266	0.199	1.46	0.741
Dissolved	mg/L	7/19/24	< 0.0075	< 0.0075	< 0.0075	< 0.0075	0.0075	0.0075	0.0075
Total	mg/L	7/19/24	0.0415	0.0135	J 0.0046	0.0262	0.0046	0.0415	0.0215

Note:
J - Analyte detected below quantitation limits

Using average porewater data for lead, dissolved, (0.0075) the total mass is:

= 0.0075 mg/L x 582,000,000 L = 4.37 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum lead leaching rate per metric ton of ash is:

= 4.37 kg / 1,424,736 metric tons = 0.00306 g Lead/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Lead

Parameter	SPLP	Porewater
Average Lead Concentration	0.0075 mg/L	0.0075 mg/L
Total Lead Mass	4.37 kg	4.37 kg

The concentrations of lead in the SPLP sample are the same calculated to the porewater results (0.0075 mg/L vs. 0.0075 mg/L). The total lead mass in porewater is 4.37 kg, is the same for the SPLP-derived estimates (4.37 kg).

The identical lead concentrations (0.0075 mg/L) and total mass (4.37 kg) in both SPLP and porewater samples from Dallman Ash Pond result from lead's unique geochemical behavior, which minimizes solubility across a wide range of conditions. In SPLP's acidic environment (pH 4.2), lead precipitates as insoluble anglesite ($PbSO_4$) due to sulfate in the leachant, while in the pond's alkaline porewater (pH 8–12), it forms stable cerussite ($PbCO_3$) or hydroxides. Additionally, lead adsorbs strongly to iron/aluminum oxides and clay minerals in ash regardless of pH, with distribution coefficients (K_d) typically >10^4 L/kg. These parallel immobilization mechanisms—precipitation and adsorption—suppress dissolution equally in both test methods.

Lead's mobility in groundwater is inherently low due to three key characteristics: 1) sulfate or carbonate availability triggers near-instantaneous mineral formation; 2) strong surface bonding persists across pH gradients; and 3) lead lacks soluble oxidized species, unlike chromium or arsenic.

Consequently, lead plumes rarely extend beyond local zones (<50 m) unless exposed to unusually acidic, low-sulfate, or low-carbonate groundwater. The SPLP-porewater agreement confirms that standardized leaching tests reliably predict lead's low environmental mobility in coal ash impoundments. However, long-term stability depends on maintaining geochemical conditions that favor precipitation—particularly avoiding acidic groundwater intrusion that could dissolve mineral phases.

Lakeside Ash Pond - SPLP/TCLP Results – Lead

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	0.0075	0.0075	0.0075
TCLP	mg/L	< 0.0075	< 0.0075	< 0.0075	0.0247	< 0.0075	< 0.0075	< 0.0075	0.0075	0.0247	0.00996

The porewater volume of the surface impoundment is 351,572,000 L. Lead concentrations were non-detect (<0.0075 mg/L) for all SPLP samples. Using detection limit value (0.0075 mg/L) the total mass of lead is:

= 0.0075 mg/L x 351,572,000 L = 2.64 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the lead leaching rate per metric ton of ash is:

= 2.64 kg / 430,324 metric tons = 0.00613 g Lead/metric ton ash

Lakeside Ash Pond - Porewater Results – Lead, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	B 0.655	B 3.4	0.0526	2.78	0.0526	3.4	1.72
Dissolved	mg/L	7/19/24	< 0.0075	< 0.0075	< 0.0075	< 0.0075	0.0075	0.0075	0.0075
Total	mg/L	7/19/24	< 0.0075	< 0.0075	0.16	J 0.0043	0.0043	0.16	0.0448

Note:
B - Analyte detected in associated Method Blank

The dissolved lead concentrations were reported as non-detect (<0.0075 mg/L) for all sampling events. Using the average porewater data for lead, dissolved (0.0075), the total mass is:

= 0.0075 mg/L x 351,572,000 L = 2.64 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum lead leaching rate per metric ton of ash is:

= 2.64 kg / 430,324 metric tons = 0.00613 g Lead/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Lead

Parameter	SPLP	Porewater
Average Lead Concentration	0.0075 mg/L	0.0075 mg/L
Total Lead Mass	2.64 kg	2.64 kg

Similar to the Dallman Ash Pond results, the concentrations of lead in the SPLP sample are similar to porewater results (0.0075 mg/L vs. 0.0075 mg/L). The total lead mass in porewater is 2.64 kg, the same as the SPLP-derived estimates (2.64 kg). See discussion above.

6.10 Lithium

The mass of lithium leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Lithium

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	0.0033	0.0112	0.0078	0.0065	0.0033	0.0034	0.0075	0.0059	0.0033	0.0112	0.00611
TCLP	mg/L	0.0112	0.0367	0.0228	0.0707	0.0131	0.01	0.0192	0.0374	0.01	0.0707	0.0276

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.00611 mg/L) the total mass of lithium is:

= 0.00611 mg/L x 582,000,000 L = 3.56 kg

Conservative estimate using the maximum concentration (0.0112 mg/L) is:

= 0.0112 mg/L x 582,000,000 L = 6.52 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum lithium leaching rate per metric ton of ash is:

= 3.56 kg / 1,424,736 metric tons = 0.00250 g Lithium/metric ton ash

= 6.52 kg / 1,424,736 metric tons = 0.00458 g Lithium/metric ton ash

Dallman Ash Pond - Porewater Results – Lithium, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	0.428	0.154	0.571	0.228	0.154	0.571	0.345
Dissolved	mg/L	7/19/24	0.207	0.0963	0.117	0.261	0.0963	0.261	0.170
Total	mg/L	7/19/24	0.273	0.11	0.11	0.298	0.11	0.298	0.198

Using average porewater data for lithium, dissolved, the total mass is:

= 0.17 mg/L x 582,000,000 L = 98.9 kg

Conservative estimate using the maximum concentrations (0.298 mg/L) is:

= 0.261 mg/L x 582,000,000 L = 152 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum lithium leaching rate per metric ton of ash is:

= 98.9 kg / 1,424,736 metric tons = 0.0694 g Lithium/metric ton ash

= 152 kg / 1,424,736 metric tons = 0.107 g Lithium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Lithium

Parameter	SPLP	Porewater
Average Lithium Concentration	0.00611 mg/L	0.170 mg/L
Total Lithium Mass	3.56 kg	98.9 kg

The concentrations of lithium in the SPLP sample are approximately 96% lower compared to porewater results (0.00611 mg/L vs. 0.170 mg/L). The total lithium mass in porewater is 98.9-152 kg, significantly higher than SPLP-derived estimates (3.56-6.52 kg).

The substantial difference in lithium concentrations with porewater results stems from lithium's unique geochemistry in coal ash environments and methodological limitations of leaching tests. The key drivers of the discrepancy are pH-dependent mobilization, mineral dissolution and absence of precipitation controls.

SPLP's acidic leachant (pH 4.2) promotes ion exchange of Li^+ onto clay minerals and metal oxides in ash, temporarily sequestering it. Alkaline porewater (pH 8–12) enhances Li^+ solubility due to repulsive electrostatic forces on negatively charged mineral surfaces, and competition with Na^+/K^+ (abundant in ash porewater) for sorption sites.

Lithium is often hosted in soluble glassy phases of fly ash. Alkaline conditions gradually dissolve these phases, releasing Li^+ into porewater, a process not replicated in short-duration SPLP tests.

Unlike metals (e.g., Pb, Ba), lithium lacks insoluble precipitates, allowing it to accumulate in solution under favorable pH.

Lithium's mobility in groundwater is exceptionally high due to: 1) minimal adsorption (low K_d ~1–10 L/kg); 2) no redox sensitivity or hydrolysis; and 3) high solubility across all pH ranges.

Once released, lithium behaves conservatively (similar to chloride), migrating with advective flow and forming extensive plumes. Its actual extent depends solely on hydraulic residence time and dilution, not chemical attenuation.

SPLP's acidic, low-ionic-strength chemistry fails to replicate the alkaline, ion-rich porewater that liberates lithium. The test thus grossly underestimates in-situ leaching potential. Porewater data is essential to identify lithium as a high-mobility contaminant in CCR impoundments.

Lakeside Ash Pond - SPLP/TCLP Results – Lithium

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	< 0.003	J 0.003	J 0.0015	J 0.003	< 0.003	J 0.0027	0.0033	0.0015	0.0033	0.00279
TCLP	mg/L	0.0036	0.0087	0.0053	0.0061	0.0034	0.0153	0.0183	0.0034	0.0183	0.00867

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 351,572,000 L. Using an average concentration (0.00279 mg/L) the total mass of lithium is:

= 0.00279 mg/L x 351,572,000 L = 0.981 kg

Conservative estimate using the maximum concentration (0.0033 mg/L) is:

= 0.0033 mg/L x 351,572,000 L = 1.16 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum lithium leaching rate per metric ton of ash is:

= 0.981 kg / 430,324 metric tons = 0.00228 g Lithium/metric ton ash

= 1.16 kg / 430,324 metric tons = 0.00270 g Lithium/metric ton ash

Lakeside Ash Pond - Porewater Results – Lithium, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	0.172	0.621	0.0288	0.613	0.0288	0.621	0.359
Dissolved	mg/L	7/19/24	0.0408	0.0553	0.0071	0.144	0.0071	0.144	0.0618
Total	mg/L	7/19/24	0.0562	0.0899	0.0522	0.217	0.0522	0.217	0.104

Using average porewater data for lithium, dissolved, the total mass is:

= 0.0618 mg/L x 351,572,000 L = 21.7 kg

Conservative estimate using the maximum concentration (0.144 mg/L) is:

= 0.144 mg/L x 351,572,000 L = 50.6 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum lithium leaching rate per metric ton of ash is:

= 21.7 kg / 430,324 metric tons = 0.0505 g Barium/metric ton ash

= 50.6 kg / 430,324 metric tons = 0.118 g Barium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Lithium

Parameter	SPLP	Porewater
Average Lithium Concentration	0.00279 mg/L	0.0618 mg/L
Total Lithium Mass	0.981 kg	21.7 kg

Similar to the Dallman Ash Pond results, the concentrations of lithium in the SPLP sample are approximately 88% lower compared to porewater results (0.00279 mg/L vs. 0.0618 mg/L). The total lithium mass in porewater is 21.7-50.6 kg, significantly higher than SPLP-derived estimates (0.981-1.16 kg). See discussion above.

6.11 Mercury

The mass of mercury leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Mercury

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002	0.0002	0.0002
TCLP	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00029	< 0.0002	0.0002	0.00029	0.000211

The porewater volume of the surface impoundment is 582,000,000 L. Mercury concentrations were non-detect (<0.0002 mg/L) for all SPLP samples. Using detection limit value (0.0002 mg/L) the total mass of mercury is:

= 0.0002 mg/L x 582,000,000 L = 0.116 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the mercury leaching rate per metric ton of ash is:

= 0.116 kg / 1,424,736 metric tons = 0.0000814 g Mercury/metric ton ash

Dallman Ash Pond - Porewater Results – Mercury, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	0.00562	0.00046	H 0.00685	0.00717	0.00046	0.00717	0.005025
Dissolved	mg/L	7/19/24	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002	0.0002	0.0002
Total	mg/L	7/19/24	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002	0.0002	0.0002

Mercury concentrations were non-detect (<0.0002 mg/L) for all dissolved mercury porewater samples. Using the detection limit value (0.0002 mg/L) the total mass of mercury is:

= 0.0002 mg/L x 582,000,000 L = 0.116 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum mercury leaching rate per metric ton of ash is:

= 0.116 kg / 1,424,736 metric tons = 0.0000814 g Mercury/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Mercury

Parameter	SPLP	Porewater
Maximum Mercury Concentration	0.0002 mg/L	0.0002 mg/L
Total Mercury Mass	0.116 kg	0.116 kg

The concentrations of mercury for both the SPLP and porewater samples were non-detect (<0.0002 mg/L). The total mercury mass is estimated to be 0.116 kg.

The non-detect mercury results in both SPLP and porewater samples from Dallman Ash Pond reflect mercury's extreme immobility in coal ash environments. Three geochemical factors drive this behavior: 1) mercury readily volatilizes during coal combustion, leaving minimal soluble Hg^{2+} in ash; 2) residual mercury adsorbs irreversibly to carbon particles or sulfides in ash, forming insoluble complexes (e.g., HgS, Hg^0); and 3) submerged, reducing conditions in the pond favor precipitation as cinnabar (HgS) or amalgamation with other metals.

Mercury's mobility is inherently low due to high affinity for organic/sulfide phases (log K_d<5), volatility limiting aqueous residence, and reduction to insoluble Hg^0 under anoxia.

Consequently, mercury rarely migrates beyond ash deposits, posing negligible groundwater risk. The non-detects in both methods confirm that standardized leaching tests and porewater sampling align for mercury, unlike mobile constituents (e.g., Li, As), due to its near-total sequestration. Any long-term release would require oxidation or sulfide dissolution, which is unlikely in stable impoundments.

Lakeside Ash Pond - SPLP/TCLP Results – Mercury

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002	0.0002	0.0002
TCLP	mg/L	< 0.0002	< 0.0002	0.00028	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002	0.00028	0.000211

Note:
H - Holding times exceeded

The porewater volume of the surface impoundment is 351,572,000 L. Using an average concentration (0.0002 mg/L) the total mass of mercury is:

= 0.0002 mg/L x 351,572,000 L = 0.0703 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average mercury leaching rate per metric ton of ash is:

= 0.0703 kg / 430,324 metric tons = 0.000163 g Mercury/metric ton ash

Lakeside Ash Pond - Porewater Results – Mercury, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	0.00198	0.00926	0.0005	0.00559	0.0005	0.00926	0.004333
Dissolved	mg/L	7/19/24	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002	0.0002	0.0002
Total	mg/L	7/19/24	< 0.0002	< 0.0002	0.0003	< 0.0002	0.0002	0.0003	0.000225

Mercury concentrations were non-detect (<0.0002 mg/L) for all dissolved mercury porewater samples. Using the detection limit value (0.0002 mg/L) the total mass of mercury is:

= 0.0002 mg/L x 351,572,000 L = 0.0703 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum mercury leaching rate per metric ton of ash is:

= 0.0703 kg / 430,324 metric tons = 0.000163 g Mercury/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Mercury

Parameter	SPLP	Porewater
Average Mercury Concentration	0.0002 mg/L	0.0002 mg/L
Total Mercury Mass	0.0703 kg	0.0703 kg

The concentrations of mercury in the SPLP sample are the same as the porewater results (0.0002 mg/L vs. 0.0002 mg/L). The total mercury mass in porewater and SPLP samples is 0.0703 kg. These results are similar to the Dallman Ash Pond SPLP and porewater analytical results. See discussion above.

6.12 Molybdenum

The mass of molybdenum leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Molybdenum

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	0.216	0.144	0.155	5.21	0.0138	0.0355	0.0495	0.134	0.0138	5.21	0.745
TCLP	mg/L	0.0402	0.0554	0.0571	1.27	0.0375	0.0415	0.105	0.179	0.0375	1.27	0.223

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.745 mg/L) the total mass of molybdenum is:

= 0.745 mg/L x 582,000,000 L = 434 kg

Conservative estimate using the maximum concentration (5.21 mg/L) is:

= 5.21 mg/L x 582,000,000 L = 3,030 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum molybdenum leaching rate per metric ton of ash is:

= 434 kg / 1,424,736 metric tons = 0.305 g Molybdenum/metric ton ash

= 3,030 kg / 1,424,736 metric tons = 2.13 g Molybdenum/metric ton ash

Dallman Ash Pond - Porewater Results – Molybdenum, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	15.7	8.04	2.61	2.3	2.3	15.7	7.16
Dissolved	mg/L	7/19/24	10.4	6.58	2.78	3.61	2.78	10.4	5.84
Total	mg/L	7/19/24	11.7	7.04	2.89	3.77	2.89	11.7	6.35

Using average porewater data for molybdenum, dissolved, the total mass is:

= 5.84 mg/L x 582,000,000 L = 3,399 kg

Conservative estimate using the maximum concentrations (10.4 mg/L) is:

= 5.84 mg/L x 582,000,000 L = 6,053 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum molybdenum leaching rate per metric ton of ash is:

= 3,399 kg / 1,424,736 metric tons = 2.39 g Molybdenum/metric ton ash

= 6,053 kg / 1,424,736 metric tons = 4.25 g Molybdenum/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Molybdenum

Parameter	SPLP	Porewater
Average Molybdenum Concentration	0.745 mg/L	5.84 mg/L
Total Molybdenum Mass	434 kg	3,399 kg

The concentrations of molybdenum in the SPLP sample are approximately 87% lower compared to porewater results (0.745 mg/L vs. 5.84 mg/L). The total molybdenum mass in porewater is 3,399-6,053 kg, significantly higher than SPLP-derived estimates (434-3,030 kg).

The stark difference in molybdenum concentrations stems from molybdenum's unique pH-dependent geochemistry and the contrasting conditions of the tests.

SPLP's acidic environment (pH 4.2) triggers molybdenum adsorption onto iron/aluminum oxides and clay minerals, where it forms strong inner-sphere complexes (e.g., ≡Fe–MoO_4^+). This immobilizes dissolved molybdenum. Conversely, the alkaline porewater (pH 8–12) in the ash pond generates negatively charged mineral surfaces that repel molybdate anions (MoO_4^{2-}), while high pH also dissolves Mo-bearing phases (e.g., powellite, $CaMoO_4$), enhancing solubility.

Molybdenum's mobility is exceptionally high in alkaline settings due to: 1) as an oxyanion, it resists adsorption at high pH; 2) few insoluble phases form in typical groundwater; and 3) Mo(VI) dominates across most Eh conditions.

Once released, molybdenum migrates conservatively with groundwater flow, forming extensive plumes with minimal attenuation—unlike cationic metals (e.g., Pb, Cd) that adsorb or precipitate.

SPLP's low-pH chemistry artificially immobilizes molybdenum through adsorption mechanisms irrelevant to the actual alkaline impoundment. Porewater data thus reveals the true leaching potential, confirming molybdenum as a high-priority contaminant in CCR sites. Its long-term mobility depends solely on pH stability; acidification could reduce flux, but alkaline plumes may migrate kilometers downgradient.

Lakeside Ash Pond - SPLP/TCLP Results – Molybdenum

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	0.0145	< 0.01	0.0111	0.0169	< 0.01	J 0.0076	0.0904	0.0076	0.0904	0.0229
TCLP	mg/L	< 0.01	0.0118	0.0307	< 0.01	< 0.01	J 0.0081	0.0375	0.0081	0.0375	0.0169

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 351,572,000 L. Using an average concentration (0.0229 mg/L) the total mass of molybdenum is:

= 0.0229 mg/L x 351,572,000 L = 8.05 kg

Conservative estimate using the maximum concentration (0.0904 mg/L) is:

= 0.0904 mg/L x 351,572,000 L = 31.8 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum molybdenum leaching rate per metric ton of ash is:

= 8.05 kg / 430,324 metric tons = 0.0187 g Molybdenum/metric ton ash

= 31.8 kg / 430,324 metric tons = 0.0739 g Molybdenum/metric ton ash

Lakeside Ash Pond - Porewater Results – Molybdenum, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	0.161	0.218	0.0218	0.282	0.0218	0.282	0.171
Dissolved	mg/L	7/19/24	0.0903	0.0571	< 0.01	0.366	0.01	0.366	0.131
Total	mg/L	7/19/24	0.0942	0.0611	0.01	0.378	0.01	0.378	0.136

Using average porewater data for molybdenum, dissolved, the total mass is:

= 0.131 mg/L x 351,572,000 L = 46.1 kg

Conservative estimate using the maximum concentration (0.378 mg/L) is:

= 0.366 mg/L x 351,572,000 L = 129 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum molybdenum leaching rate per metric ton of ash is:

= 46.1 kg / 430,324 metric tons = 0.107 g Molybdenum/metric ton ash

= 129 kg / 430,324 metric tons = 0.299 g Molybdenum/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Molybdenum

Parameter	SPLP	Porewater
Average Molybdenum Concentration	0.0229 mg/L	0.131 mg/L
Total Molybdenum Mass	8.05 kg	46.1 kg

Similar to the Dallman Ash Pond results, the concentrations of molybdenum in the SPLP sample are approximately 83% lower compared to porewater results (0.0229 mg/L vs. 0.131 mg/L). The total molybdenum mass in porewater is 46.1-129 kg, significantly higher than SPLP-derived estimates (8.05-31.8 kg). See discussion above.

6.13 Selenium

The mass of selenium leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Selenium

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	J 0.03	J 0.021	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	J 0.021	0.021	0.05	0.0403
TCLP	mg/L	J 0.017	J 0.037	J 0.017	< 0.05	< 0.05	J 0.03	< 0.05	J 0.022	0.017	0.05	0.0341

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.0403 mg/L) the total mass of selenium is:

= 0.0403 mg/L x 582,000,000 L = 23.5 kg

Conservative estimate using the maximum concentration (0.05 mg/L) is:

= 0.05 mg/L x 582,000,000 L = 29.1 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum selenium leaching rate per metric ton of ash is:

= 23.5 kg / 1,424,736 metric tons = 0.0165 g Selenium/metric ton ash

= 29.1 kg / 1,424,736 metric tons = 0.0204 g Selenium/metric ton ash

Dallman Ash Pond - Porewater Results – Selenium, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	J 0.1	< 0.05	J 0.13	J 0.09	0.05	0.13	0.0925
Dissolved	mg/L	7/19/24	J 0.032	J 0.036	< 0.04	0.143	0.032	0.143	0.0628
Total	mg/L	7/19/24	J 0.036	J 0.024	J 0.028	0.158	0.024	0.158	0.0615

Note:
J - Analyte detected below quantitation limits

Using average porewater data for selenium, dissolved, the total mass is:

= 0.0628 mg/L x 582,000,000 L = 36.5 kg

Conservative estimate using the maximum concentrations (0.143 mg/L) is:

= 0.143 mg/L x 582,000,000 L = 83.2 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum selenium leaching rate per metric ton of ash is:

= 36.5 kg / 1,424,736 metric tons = 0.0257 g Selenium/metric ton ash

= 83.2 kg / 1,424,736 metric tons = 0.0584 g Selenium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Selenium

Parameter	SPLP	Porewater
Average Selenium Concentration	0.0403 mg/L	0.0628 mg/L
Total Selenium Mass	23.5 kg	36.5 kg

The concentrations of selenium in the SPLP sample are approximately 36% lower compared to porewater results (0.0403 mg/L vs. 0.0628 mg/L). The total selenium mass in porewater is 36.5-83.2 kg, significantly higher than SPLP-derived estimates (23.5-29.1 kg).

The higher selenium concentrations in Dallman Ash Pond's porewater compared to SPLP results with porewater mass estimates significantly exceeding SPLP-derived values result from selenium's redox-driven geochemistry and the contrasting conditions between field and lab environments. In SPLP's acidic (pH 4.2), oxygenated setting, selenium adsorbs strongly to iron oxides as immobile selenite [Se(IV)]. Conversely, the pond's alkaline (pH 8–12) reducing conditions stabilize mobile selenite [Se(IV)] while suppressing further reduction to insoluble elemental selenium [Se(0)]. This partial reduction traps selenium in its soluble Se(IV) form, enhancing porewater concentrations.

Selenium mobility hinges on three factors: 1) oxic conditions favor mobile selenate [Se(VI)]; reducing environments stabilize Se(IV) or Se(0); 2) alkaline conditions diminish adsorption of Se(IV) onto mineral surfaces; 3) sulfate and bicarbonate in porewater displace adsorbed selenium.

In groundwater, selenium's extent is determined by redox gradients. If reducing conditions persist, Se(IV) migrates moderately via advection but may attenuate where full reduction to Se(0) occurs. Oxidation during pond closure could convert Se(IV) to highly mobile Se(VI), forming extensive plumes. SPLP underestimates in-situ selenium because its acidic, oxic chemistry immobilizes selenium through adsorption irrelevant to the pond's actual reducing, alkaline environment. Porewater data thus better reflects current leaching risk, though long-term stability depends on maintaining reducing conditions to limit Se(VI) generation.

Lakeside Ash Pond - SPLP/TCLP Results – Selenium

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	J 0.019	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.019	0.05	0.0456
TCLP	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	0.05	0.05

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 351,572,000 L. Using an average concentration (0.0456 mg/L) the total mass of selenium is:

= 0.0456 mg/L x 351,572,000 L = 16.0 kg

Conservative estimate using the maximum concentration (0.05 mg/L) is:

= 0.05 mg/L x 351,572,000 L = 17.6 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum selenium leaching rate per metric ton of ash is:

= 16.0 kg / 430,324 metric tons = 0.0372 g Selenium/metric ton ash

= 17.6 kg / 430,324 metric tons = 0.0409 g Selenium/metric ton ash

Lakeside Ash Pond - Porewater Results – Selenium, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	0.0906	0.158	0.0066	0.205	0.0066	0.205	0.115
Dissolved	mg/L	7/19/24	< 0.04	J 0.022	0.0456	J 0.034	0.022	0.0456	0.0354
Total	mg/L	7/19/24	J 0.026	J 0.027	0.0428	J 0.028	0.026	0.0428	0.0310

Note:
J - Analyte detected below quantitation limits

Using average porewater data for selenium, dissolved, the total mass is:

= 0.0354 mg/L x 351,572,000 L = 12.4 kg

Conservative estimate using the maximum concentration (0.0456 mg/L) is:

= 0.0456 mg/L x 351,572,000 L = 16.0 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum selenium leaching rate per metric ton of ash is:

= 12.4 kg / 430,324 metric tons = 0.0289 g Selenium/metric ton ash

= 16.0 kg / 430,324 metric tons = 0.0373 g Selenium/metric ton ash

Comparison of the conservative porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Selenium

Parameter	SPLP	Porewater
Average Selenium Concentration	0.0456 mg/L	0.0354 mg/L
Total Selenium Mass	16.0 kg	12.4 kg

The concentrations of selenium, dissolved, in the porewater sample are approximately 22% lower compared to SPLP results (0.0354 mg/L vs. 0.0456 mg/L). The total selenium mass in porewater is 12.4-16.0 kg, is slightly lower than SPLP-derived estimates (16.0-17.6 kg).

Selenium is a redox-sensitive anion-forming element commonly associated with coal combustion residues and is known for its potential environmental mobility and ecological effects.

The SPLP result for the Lakeside Ash Pond was unexpectedly higher than porewater, suggesting the acidic SPLP leachate (pH ~4.2–4.8) may promote desorption or dissolution of selenium from ash surfaces that are otherwise more stable under neutral pH porewater conditions. The SPLP test environment is more oxidizing, favoring formation and release of selenate, the more mobile selenium species. The SPLP test may extract selenium that is not readily soluble under in-situ conditions but becomes mobilized under artificial laboratory conditions.

The selenium SPLP mass estimates for the Lakeside Ash Pond are only modestly greater, suggesting that field porewater concentrations reflect a reasonably representative long-term leaching scenario. SPLP overestimates mobility for selenium under certain conditions by not accounting for redox-controlled sorption or retention processes present in the field.

Given that the total selenium mass estimates differ by less than a factor of two, both datasets may be considered complementary for characterizing selenium mobility, with field conditions providing the more environmentally relevant perspective.

6.14 Thallium

The mass of thallium leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the SPLP and porewater analytical results.

Dallman Ash Pond - SPLP/TCLP Results – Thallium

Method	Units	D1 19.5-21.5	D1 36.5-38.5	D2 19.5-21.5	D2 33.5-35.5	D3 4.5-6.5	D3 14.5-29.5	D4 19.5-21.5	D4 29.5-31.5	Min	Max	Avg
SPLP	mg/L	< 0.002	J 0.001	< 0.002	J 0.0015	< 0.002	J 0.0017	J 0.0017	J 0.0013	0.001	0.002	0.00165
TCLP	mg/L	0.0229	0.0268	0.0257	J 0.0018	0.0252	0.0185	0.0225	0.0243	0.0018	0.0268	0.0210

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 582,000,000 L. Using an average concentration (0.165 mg/L) the total mass of thallium is:

= 0.00165 mg/L x 582,000,000 L = 0.960 kg

Conservative estimate using the maximum concentration (0.002 mg/L) is:

= 0.002 mg/L x 582,000,000 L = 1.16 kg

Based upon a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum thallium leaching rate per metric ton of ash is:

= 0.960kg / 1,424,736 metric tons = 0.000674 g Thallium/metric ton ash

= 1.16 kg / 1,424,736 metric tons = 0.000814 g Thallium/metric ton ash

Dallman Ash Pond - Porewater Results – Thallium, total and dissolved

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
Total	mg/L	4/29/24	J 0.13	J 0.049	0.274	J 0.066	0.049	0.274	0.130
Dissolved	mg/L	7/19/24	< 0.002	< 0.002	0.0021	J 0.0017	0.0017	0.0021	0.00195
Total	mg/L	7/19/24	0.0035	0.0044	0.003	0.0071	0.003	0.0071	0.0045

Note:
J - Analyte detected below quantitation limits

Using average porewater data for thallium, dissolved, the total mass is:

= 0.00195 mg/L x 582,000,000 L = 1.13 kg

Conservative estimate using the maximum concentrations (0.0021 mg/L) is:

= 0.0021 mg/L x 582,000,000 L = 1.22 kg

Using a total ash mass in the surface impoundment of 1,424,736,000 kg (1.42 million metric tons), the average and maximum thallium leaching rate per metric ton of ash is:

= 1.13 kg / 1,424,736 metric tons = 0.000797 g Thallium/metric ton ash

= 1.22 kg / 1,424,736 metric tons = 0.000858 g Thallium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Dallman Ash Pond - Results Comparison – Thallium

Parameter	SPLP	Porewater
Average Thallium Concentration	0.00165 mg/L	0.00195 mg/L
Total Thallium Mass	0.960 kg	1.13 kg

The concentrations of thallium in the SPLP sample are approximately 15% lower compared to porewater results (0.00165 mg/L vs. 0.00195 mg/L). The total thallium mass in porewater is 1.13-1.22 kg, somewhat higher than SPLP-derived estimates (0.960-1.16 kg).

The modestly higher thallium concentrations in Dallman Ash Pond's porewater compared to SPLP results arise from thallium's unique cationic geochemistry and subtle pH-dependent interactions. In SPLP's acidic environment (pH 4.2), thallium (Tl^+) competes with abundant H^+ ions for sorption sites on clay minerals and metal oxides, partially suppressing dissolution. Conversely, the alkaline porewater (pH 8–12) contains high concentrations of Na^+ and K^+ (common in coal ash leachates), which displace weakly adsorbed Tl^+ from exchange sites via ion competition, enhancing its solubility. This ion exchange effect, absent in SPLP's low-ionic-strength leachant, drives the small but consistent increase in porewater concentrations.

Thallium mobility in groundwater is governed by three key characteristics: 1) Tl^+ adsorbs moderately to clay/oxide surfaces (K_d ~10–100 L/kg), but is readily displaced by K^+/Na^+; 2) unlike metals like lead, thallium lacks highly insoluble phases; and 3) Tl(I) dominates in most conditions, though oxidation to Tl(III) can occur in Mn-rich settings.

These traits allow thallium to migrate farther than strongly sorbed metals (e.g., lead) but not as conservatively as anions (e.g., molybdenum). Plumes typically extend 100–500 meters downgradient, attenuated gradually by adsorption. The SPLP slightly under predicts in-situ mobility because it fails to replicate the ion-rich porewater that liberates Tl^+ via competition. While the mass difference is small (~15%), porewater data better reflects actual flux, particularly in alkaline CCR impoundments where cation competition is pronounced. Long-term risks depend on downgradient potassium/sodium levels and pH stability.

Lakeside Ash Pond - SPLP/TCLP Results – Thallium

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	J 0.0011	< 0.002	J 0.0019	0.0011	0.002	0.00186
TCLP	mg/L	0.0023	0.0041	0.0086	0.006	J 0.0015	0.0199	0.0021	0.0015	0.0199	0.00636

Note:
J - Analyte detected below quantitation limits

The porewater volume of the surface impoundment is 351,572,000 L. Using an average concentration (0.00186 mg/L) the total mass of thallium is:

= 0.00186 mg/L x 351,572,000 L = 0.654 kg

Conservative estimate using the maximum concentration (0.002 mg/L) is:

= 0.002 mg/L x 351,572,000 L = 0.703 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum thallium leaching rate per metric ton of ash is:

= 0.654 kg / 430,324 metric tons = 0.00152 g Thallium/metric ton ash

= 0.703 kg / 430,324 metric tons = 0.00163 g Thallium/metric ton ash

Lakeside Ash Pond - Porewater Results – Thallium, total and dissolved

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Total	mg/L	4/29/24	< 0.04	0.0433	J 0.0012	< 0.1	0.0012	0.1	0.0461
Dissolved	mg/L	7/19/24	< 0.002	< 0.002	< 0.002	0.0023	0.002	0.0023	0.00208
Total	mg/L	7/19/24	J 0.001	< 0.002	0.0055	0.0036	0.001	0.0055	0.00303

Note:
J - Analyte detected below quantitation limits

Using average porewater data for thallium, dissolved, the total mass is:

= 0.00208 mg/L x 351,572,000 L = 0.731 kg

Conservative estimate using the maximum concentration (0.0023 mg/L) is:

= 0.0023 mg/L x 351,572,000 L = 0.809 kg

Based upon a total ash mass in the surface impoundment of 430,324,128 kg (0.430 million metric tons), the average and maximum thallium leaching rate per metric ton of ash is:

= 0.731 kg / 430,324 metric tons = 0.00170 g Thallium/metric ton ash

= 0.809 kg / 430,324 metric tons = 0.00188 g Thallium/metric ton ash

Comparison of the porewater results with the SPLP estimate:

Lakeside Ash Pond - Results Comparison – Thallium

Parameter	SPLP	Porewater
Average Thallium Concentration	0.00186 mg/L	0.00208 mg/L
Total Thallium Mass	0.654 kg	0.731 kg

Similar to the Dallman Ash Pond, the concentrations of thallium in the Lakeside Ash Pond SPLP sample are approximately 11% lower compared to porewater results (0.00186 mg/L vs. 0.00208 mg/L). The total thallium mass in porewater is 0.731-0.809 kg, higher than SPLP-derived estimates (0.654-0.703 kg). See discussion above.

6.15 Radium 226 and 228 combined

The mass of radium 226 and radium 228 combined leachable from fly ash and bottom ash in a CCR surface impoundment was estimated from the solids and porewater analytical results.

The radium 226 and radium 228 CCR solids samples were analyzed using SW-846 Method 9315 and SW-846 Method 9320. Method 9315 is used to determine the concentrations of radium-226 (Ra-226) and radium-228 (Ra-228) in solid and aqueous environmental samples (e.g., soil, sediment, sludge, ash, and groundwater). Method 9320 is used to measure the concentration of radium-226 (Ra-226) in water samples (specifically drinking water, groundwater, and surface water).

The radium 226 and radium 228 CCR porewater samples were analyzed using EPA 903.0 and EPA 904.0, respectively.

Dallman Ash Pond - Results – Radium 226 and 228 combined

		D1	D1	D2	D2	D3	D3	D4	D4			
Method	Units	19.5-21.5	36.5-38.5	19.5-21.5	33.5-35.5	4.5-6.5	14.5-29.5	19.5-21.5	29.5-31.5	Min	Max	Avg
9315/9320	pCi/g	< 2	< 2	< 2	< 2	< 2		< 2	< 2	2	2	2

The total mass of combined Radium-226 and Radium-228 in the surface impoundment is based on the given concentration in the ash solids. Given a radium-226 and radium-228 combined concentration of 2 pCi/g (in ash), and a total ash mass of 1,424,736,000 kg (1.42 million metric tons), the total radioactivity (pCi) is:

Total activity = Concentration x Mass of Ash

Total activity = 2000 pCi/kg x 1,424,736,000 kg = 2,849,472,000,000 pCi

Converting activity to mass (using Ra-226 specific activity = 1 Ci/g = 3.7×10^{10} pCi/g):

Mass = 2,849,472,000,000 / 3.7×10^{10} pCi/g = 0.0770 kg

The total combined mass of Radium-226 and Radium-228 in the ash is approximately 0.0770 kg. This assumes the entire 2 pCi/g is due to Ra-226 or an average radionuclide with similar specific activity. If Ra-228, with a much shorter half-life, were dominant, the mass would be even smaller.

Dallman Ash Pond - Porewater Results – Radium 226 and 228 combined

Method	Units	Date	D1	D2	D3	D4	Min	Max	Avg
9320	pci/L	4/29/24	< 1.43	6.81	< 2.5	< 3.34	1.43	6.81	3.52

The total mass of combined radium 226 and radium 228 in porewater is calculated using the total activity for the average combined concentration and the total activity:

Total activity = Concentration x Volume

Total activity = 3.52 pCi/L x 582,000,000 L = 2,048,640,000 pCi

For the maximum concentration (6.81 pCi/L) the total activity is:

Total activity = 6.81 pCi/L x 582,000,000 L = 3,963,420,000 pCi

Converting activity to mass (using Ra-226 equivalence):

Mass = 2,048,640,000 pCi / 3.7 x 1010 pCi/g = 0.0000554 kg

And for the maximum concentration:

Mass = 3,963,420,000 pCi / 3.7 x 10^{10} pCi/g = 0.000107 kg

The total combined mass of Radium-226 and Radium-228 in the ash is approximately 0.0000554 to 0.000107 kg. This assumes the specific activity of Ra-226; if Ra-228 dominates (which has a much higher specific activity due to its shorter half-life), the actual mass would be smaller.

Dallman Ash Pond - Results Comparison – Radium 226 and 228 combined

Parameter	SPLP	Porewater
Average Radium 226 and 228 combined Concentration	2 pCi/g	3.52 pCi/L
Total Radium 226 and 228 combined Mass	0.0770 kg	0.0000554 kg

The concentrations of radium 226 and 228 combined, in the SPLP and porewater samples are given in different units (pCi/kg and pCi/L, respectively). The total radium 226 and 228 combined mass in porewater is 0.0000554 kg, is significantly less than the SPLP-derived estimate (0.0770 kg).

The observed discrepancy in the total mass of radium-226 (Ra-226) and radium-228 (Ra-228) between the coal combustion residual (CCR) solids (fly ash and bottom ash) and the associated porewater reflects important geochemical and risk-based differences. These differences are

influenced by the mobility of radium in CCR environments and have direct implications for human health risk assessments. Solids Analysis (SW-846 Methods 9315 & 9320) shows significantly higher total mass of Ra-226 and Ra-228. Porewater Analysis (EPA Methods 903.0 & 904.0) shows much lower total radium mass. Based upon the evaluation, approximately 99% of total radium mass is retained in the solid phase.

The likely causes of the discrepancy include factors which limit radium mobility such as sorption and incorporation into solid matrix. Radium strongly adsorbs to iron and manganese oxides, aluminosilicates, and other mineral phases present in fly ash and bottom ash. In some cases, radium may be co-precipitated or structurally incorporated into solid phases (e.g., barium sulfate or carbonate minerals).

The geochemical conditions of CCR porewater that may contribute to this discrepancy include high pH typical of CCR porewater (>8.5–11). High pH promotes low radium solubility due to formation of insoluble hydroxides or competition with Ca^{2+}, Ba^{2+}, and Sr^{2+} for exchange sites. Also, the redox environment and the absence of strong complexing agents also reduce Ra mobility.

Low partitioning to aqueous phase may also contribute to the discrepancy. The distribution coefficient (Kd) for radium in CCR environments is often high, meaning only a small fraction partitions to water.

Therefore, despite high solid-phase concentrations, porewater concentrations may remain low unless geochemical conditions shift.

Porewater concentrations are more representative of risk. Human exposure risk from CCR sites (particularly for groundwater users) is generally driven by dissolved-phase transport of contaminants—what can leach and migrate into drinking water supplies.

The solid-phase inventory is useful for understanding the long-term potential for release (i.e., source strength), but does not represent an immediate risk unless radium becomes mobilized.

The large mass of Ra-226 and Ra-228 in CCR solids demonstrates a substantial source term, but the very low porewater concentrations indicate limited current mobility under site conditions. From a risk assessment perspective, porewater concentrations are the more relevant and protective measure of human health risk, particularly for groundwater contamination pathways.

Lakeside Ash Pond – Results – Radium 226 and 228 combined

Method	Units	L1 14.5-21.5	L1 24.5-31.5	L3 19.5-21.5	L3 29.5-32.7	L4 10-15.3	L5 19.5-21.5	L5 32.5-35.2	Min	Max	Avg
SPLP	pCi/g	< 2	< 2	< 2	< 2	< 2	< 3.31	< 3.55	2	3.55	2.41

Given a radium-226 and radium-228 combined average concentration of 2.41 pCi/g (in ash), and a total ash mass of 430,324,128 kg (0.430 million metric tons), the total radioactivity (pCi) is:

Total activity = 2,410 pCi/kg x 430,324,128 kg = 1,037,081,148,000 pCi

For the maximum combined radium 226 and radium 228 concentration (3.55 pCi/kg), the total activity is:

Total activity = 3,550 pCi/kg x 430,324,128 kg = 1,527,650,654,000 pCi

The mass calculation assumes an average effective specific activity for radium-226:

Mass = 1,037,081,148,000 pCi / 3.7 x 10^{10} pCi/g = 0.0280 kg

And for the maximum combined radium-226 and radium-228 concentration (3.55 pCi/kg), the mass is:

Mass = 1,527,650,654,000 pCi / 3.7 x 10^{10} pCi/g = 0.0413 kg

The total combined mass of Radium-226 and Radium-228 in the ash is approximately 0.0280 kg to 0.0413 kg. This assumes the entire combined mass of radium-226 and radium-228 is due to Ra-226 or an average radionuclide with similar specific activity. If Ra-228, with a much shorter half-life, were dominant, the mass would be even smaller.

Lakeside Ash Pond - Porewater Results – Radium 226 and 228 combined

Method	Units	Date	L1	L3	L4	L5	Min	Max	Avg
Porewater	pci/L	4/29/24	< 1.25	2.5	1.05	17.7	1.05	17.7	5.64

The total mass of combined radium 226 and radium 228 in porewater is calculated using the total activity for the average combined concentration and the total activity:

Total activity = 5.64 pCi/L x 351,572,000 L = 1,982,866,080 pCi

For the maximum combined radium 226 and radium 228 concentration (17.7 pCi/L), the total activity is:

Total activity = 17.7 pCi/L x 351,572,000 L = 6,222,824,400 pCi

Since the activity is combined, the combined mass is calculated assuming an average effective specific activity for radium-226:

Mass = 1,982,866,080 pCi / 3.7 x 1010 pCi/g = 0.0000536 kg

And for the maximum combined radium-226 and radium-228 concentration, the mass is:

Mass = 6,222,824,400 pCi / 3.7 x 10^{10} pCi/g = 0.000168 kg

The total combined mass of Radium-226 and Radium-228 in the ash is approximately 0.0000536 kg to 0.000168 kg. This assumes the specific activity of Ra-226; if Ra-228 dominates (which has a much higher specific activity due to its shorter half-life), the actual mass would be smaller.

Lakeside Ash Pond - Results Comparison – Radium 226 and 228 combined

Parameter	SPLP	Porewater
Average Radium 226 and 228 combined Concentration	2.41 pCi/kg	5.64 pCi/L
Total Radium 226 and 228 combined Mass	0.0280 kg	0.0000536 kg

The concentrations of radium 226 and 228 combined, in the solids and porewater analytical results are given in different units (pCi/kg and pCi/L, respectively) and cannot be directly compared. The total radium 226 and 228 combined mass in porewater is 0.0000536-0.000168 kg, and significantly less than that calculated for the solids derived estimate (0.0280-0.0413 kg). See discussion above.

7. MASS OF ARSENIC AND COBALT IN THE BASAL SAND PLUME

The quantity of total arsenic and total cobalt in the basal sand plume is calculated as the dissolved mass within the specified plume area where concentrations exceed the groundwater protection standard (total arsenic = 0.0239 mg/L and total cobalt = 0.006 mg/L). This uses the following formula for dissolved contaminants in groundwater:

Mass (M) = Plume area (A) x Aquifer thickness (b) x Total Porosity (n) x Average plume concentration (C)

Given:

Plume area (A) = area of the plume where concentrations exceed the groundwater protection standard; 8 consecutive quarters of groundwater analytical data was collated for the parameters total arsenic and total cobalt (see Table 2 and Table 3, respectively). This data was used to calculate the averages for total arsenic and total cobalt concentrations. The average values were

used to generate plume maps for total arsenic and total cobalt (See Figure 3 and Figure 4, respectively). Using the design and geological data, the areas of each plume were determined;

- for total arsenic > 0.0239 mg/L = 241,780 ft² = 22,462 m² (see Figure 3);
- for total cobalt > 0.006 mg/L = 192,776 ft² = 17,909 m² (see Figure 4).

Aquifer thickness (b) = 4.3 feet or 1.31 m; (average based on basal sand range of 0–16.9 feet from site data; an average values is assumed as a conservative estimate for the plume-bearing zone, as the unit is not consistent but is the primary migration pathway).

Total Porosity (n) = 0.437; for the basal sand, the total porosity is based on the saturation water content of sand (0.437)(Rawls et al., 1982).

Average plume concentration (C) = Average concentration of contaminant of concern within the plume area;

- for total arsenic = 0.136 mg/L = 0.136 g/m³ (see Figure 3); Average of values at wells AP8 (0.0426 mg/L) and well RW3 (0.229 mg/L) within arsenic plume area
- for total cobalt = 0.00801 mg/L = 0.00801 g/m³ (see Figure 4); Average of values at wells AP2A (0.00976 mg/L) and AP3 (0.00626 mg/L) within cobalt plume area.

Total Arsenic Mass

Pore volume = A × b × n = 22,462 m² × 1.31 m × 0.437 = 12,859 m³

Total mass = 12,859 m³ × 0.136 g/m³ = 1746 g = 1.746 kg

For the excess mass above the standard (using C_{excess} = 0.136 – 0.0239 = 0.112 mg/L = 0.112 g/m³):

Excess mass = 12,859 m³ × 0.112 g/m³ = 1,439 g = 1.439 kg

Using the average concentration, the approximate mass of total arsenic in the plume area that exceeds the groundwater protection standard (0.0239 mg/L) is 1.439 kg.

Total Cobalt Mass

Pore volume = A × b × n = 17,909 m² × 1.31 m × 0.437 = 10,253 m³

Total mass = 10,253 m³ × 0.00801 g/m³ = 82 g = 0.082 kg

For the excess mass above the standard (using C_{excess} = 0.00801 - 0.006 = 0.002 mg/L = 0.002 g/m³):

Excess mass = 17,909 m³ × 0.002 g/m³ = 21 g = 0.021 kg.

Using the average concentration, the approximate mass of total cobalt in the plume area that exceeds the groundwater protection standard (0.006 mg/L) is 0.021 kg.

8. CONCLUSIONS

Based upon an evaluation of the analytical data from the review period (first quarter 2022 through fourth quarter 2024) there were exceedances of the groundwater protection standards for arsenic at wells AW-1, RW-3, AP-7, and AP-8 and cobalt at wells AP-2A and AP-3. While the source of the arsenic and cobalt exceedances at wells adjacent to the CCR surface impoundments is likely due to leaching of the CCR, the spatial distribution of the impacts at wells north and west of Sugar Creek indicates the source is more likely attributed to other natural and/or anthropogenic sources.

The nature and extent of arsenic exceedances along the north side of the Dallman Ash Pond at wells AW-1, RW-3, AP-7, and AP-8 have been characterized. Advection appears to be the primary transport mechanism due to sustained groundwater flow, while diffusion is negligible because large, dilute plumes generate weak concentration gradients. At well AW-1, the limits of arsenic exceedances are delineated by the arsenic concentrations at G120, P06D, and R111. The arsenic exceedances at RW-3 are delineated by well AP-6. At well AP-7, the arsenic exceedances appear to be the result of natural spatial variability or influences from other sources north of the impoundments. Bedrock contours and potentiometric surface data indicate groundwater converges on Sugar Creek with groundwater flow to the south, north of Sugar Creek and groundwater flow to the north, south of Sugar Creek. At well AP-8 the nature and extent of the arsenic exceedances are defined by well T-4. The wells (i.e., T-4, T-5, T-6, and AP-7) utilized in the evaluation of arsenic are all north of Sugar Creek, Wells AP-6 and RW-3 are located south of Sugar Creek.

Along the west side of the Dallman Ash Pond, the nature and extent of the cobalt exceedances at AP-2A and AP-3 are characterized by the cobalt concentrations at wells located west of Sugar Creek (i.e., AP-11, AP-12, and T-2). The cobalt exceedances at wells AP-2A and AP-3 may be related to the CCR surface impoundments; however, the concentrations of cobalt at wells AP-11, AP-12, and T-2 appears to be related to natural spatial variability or influences from other sources west of the impoundments. Bedrock contours and potentiometric surface data indicate groundwater converges on Sugar Creek with groundwater flow to the east, west of Sugar Creek and groundwater flow to the west, east of Sugar Creek.

Evaluation of porewater and synthetic precipitation leaching procedure (SPLP) analytical results provides important insight into the environmental mobility of arsenic and cobalt in the ash ponds. In the Dallman Ash Pond, the average arsenic concentration in porewater (0.124 mg/L) is approximately 84% higher than the SPLP concentration (0.0194 mg/L). Correspondingly, the estimated total arsenic mass in porewater (72.2–99.5 kg) is substantially greater than SPLP-derived estimates (11.3–27.4 kg). In the Lakeside Ash Pond, the average arsenic concentration in porewater (0.137 mg/L) is approximately 87% higher than in SPLP samples (0.0172 mg/L), and the estimated arsenic mass in porewater (48.2–159 kg) similarly exceeds SPLP-derived estimates (6.05–11.6 kg). These findings suggest that site-specific porewater conditions—characterized by elevated pH and potentially reducing environments—enhance arsenic solubility and mobility, conditions not replicated under SPLP's acidic leaching environment. As a result, SPLP may under predict the mass and leachability of arsenic from CCR under field-relevant conditions.

In the Dallman Ash Pond, the average porewater cobalt concentrations (0.00425 mg/L) are about 29% lower than SPLP results (0.006 mg/L), yielding comparable mass estimates (2.47–3.61 kg for porewater vs. 3.49 kg SPLP-derived). In the Lakeside Ash Pond, porewater cobalt concentrations (0.0086 mg/L) are approximately 30% higher than SPLP concentrations (0.006 mg/L), with estimated mass in porewater (3.02–6.82 kg) slightly exceeding SPLP-derived estimates (2.11 kg). The modest but notable differences between porewater and SPLP cobalt data highlight some influence of site geochemical conditions, though cobalt appears to be less sensitive to pH-driven mobilization than arsenic.

Taken together, the significantly higher arsenic concentrations and mass estimates in CCR porewater compared to SPLP data indicate that arsenic is mobilized under field conditions present within the ash ponds and that these conditions are not well captured by laboratory leaching tests. This supports the conclusion that arsenic observed in groundwater at wells adjacent to the impoundments is likely at least partially attributable to leaching from CCR materials.

In contrast, cobalt exhibits smaller differences between porewater and SPLP results, suggesting that while leaching may occur, it may be less dependent on the site-specific geochemical conditions. Nonetheless, given the presence of statistically significant exceedances near the impoundments and measurable cobalt mass in porewater, CCR leaching remains a plausible source for observed cobalt concentrations in groundwater near the ash ponds.

Accordingly, the combined assessment of groundwater exceedances, hydrogeologic conditions, and constituent leaching behavior supports the conclusion that leachate originating from CCR units is a likely contributor to the observed arsenic and cobalt concentrations in certain downgradient wells. The quantities of total arsenic (~1.44 kg excess) and total cobalt (~0.021 kg excess) released from the Dallman and Lakeside Ash Ponds into the basal sand are small relative to leachable masses in the impoundments (~63-130 kg arsenic; ~4.7 kg cobalt), reflecting effective containment by low-permeability cohesive deposits and semi-confined conditions.

Releases are limited to localized plumes in the basal sand, driven by downward gradients but attenuated by adsorption and low hydraulic conductivities. No releases to the shallow sand occur due to its discontinuity, vertical separation, and lack of pathways. Overall, the site hydrogeology minimizes off-site migration, with radium and other constituents similarly retained; ongoing monitoring and closure activities (e.g., dewatering) will further reduce risks by eliminating hydraulic heads. Continued assessment monitoring and corrective measures evaluation under 40 CFR § 257.95 are warranted to ensure protection of groundwater resources and inform closure strategy implementation.

The assessment of corrective measures per 40 CFR 257.95(g)(1) for the Appendix IV constituents identified as exhibiting Statistically Significant Levels (SSLs) identified in the February 13, 2025 Groundwater Protection Standards Report (GWPS Report) has been completed. The nature and extent of the Appendix IV exceedances are not expected to affect the proposed closure of the CCR surface impoundments (i.e., the selected remedy).

This report has provided a discussion of relevant site conditions necessary to characterize the nature and extent of the Appendix IV exceedances and any conditions that may affect the proposed closure of the CCR surface impoundments. Characterization of the release includes:

- A groundwater monitoring well network that adequately characterizes groundwater flow and the Appendix IV exceedances; and,
- A summary of analytical results for Appendix IV constituents and comparison to the established groundwater protection standards.

Assessment monitoring shall continue as specified in the Groundwater Monitoring Program.

9. ENGINEERING CERTIFICATION

The owner or operator of a coal combustion residual unit must obtain a certification from a qualified professional engineer that the Nature and Extent Report has been completed pursuant to 40 C.F.R. § 257.95(g)(3)(ii) and Paragraphs 268 and 270 of the Consent Agreement and Final Order.

The engineering certification for the groundwater monitoring system follows.

QUALIFIED PROFESSIONAL ENGINEER CERTIFICATION

I, Karl W. Finke, a qualified professional engineer in good standing in the State of Illinois, certify that the information in this report is presented pursuant to 40 CFR 257.95(g)(3)(ii) and Paragraphs 268 and 270 of the Consent Agreement and Final Order, is accurate as of the date of my signature below. The content of this report is not to be used for other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Signature: _____

Illinois P.E. No: 062-068571

Date: September 22, 2025



License Expiration: November 30, 2025

TABLES

Table 1: Groundwater Analytical Summary Data
Table 2: Total Arsenic Summary Table
Table 3: Total Cobalt Summary Table

TABLE 1:
Groundwater Analytical Summary Data

Table 1
City Water, Light and Power
CWLP CCR Surface Impoundments
2022 - 2024 Summary of Exceedances

Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
Appendix III																		
AP-1	Boron, total	mg/L	0.14973			**0.14973**	22.3	23.1	22.1	21.4	23.2	21.2	22.5	21.7	23.5	22.7	22.9	23.6
AP-2	Boron, total	mg/L	0.14973			**0.14973**	4.68	4.25	4.32	4.08	3.94	3.7	3.73	3.23	3.38	3.43	3.1	3.52
AP-3	Boron, total	mg/L	0.14973			**0.14973**	15.8	14.7	14.8	14.6	14.5	14.3	14	15.2	14.8	14.5	14.6	14.9
AP-6	Boron, total	mg/L	0.14973			**0.14973**	0.247	0.275	0.0716	0.166	0.13	0.174	0.0753	0.214	0.171	0.238	0.25	0.248
AP-7	Boron, total	mg/L	0.14973			**0.14973**	0.381	0.339	0.204	0.26	0.18	0.391	0.141	0.331	0.173	0.0978	0.244	0.332
AP-10	Boron, total	mg/L	0.14973			**0.14973**		3.58	3.52	3.35	3.32	3.76	3.81	3.6	3.71	3.92	3.9	3.95
AP-11	Boron, total	mg/L	0.14973			**0.14973**	0.276	0.271	0.0533	0.261	0.282	0.241	0.24	0.256	0.232	0.0555	0.211	0.261
AP-13	Boron, total	mg/L	0.14973			**0.14973**	0.0403	0.0375	0.268	0.044	0.0485	0.0328	0.0235	0.0386	0.0356	0.0343	0.0357	< 0.02
AP-14	Boron, total	mg/L	0.14973			**0.14973**	23.1	23.3	21.8	21.3	21.3	23	22.6	22.1	21.6	22.3	20	21
AW-1	Boron, total	mg/L	0.14973			**0.14973**		8.24	7.78			8.39		8.66	8.24	9.44	9.19	8.91
RW-3	Boron, total	mg/L	0.14973			**0.14973**	0.179	0.196	0.177	0.192	0.175	0.186	0.0595	0.117	0.116	0.154	0.122	0.137
R111	Boron, total	mg/L	0.14973			**0.14973**	4.19		0.104			4.64	3.89	0.102	< 0.02	0.901	3.5	4.19
G120	Boron, total	mg/L	0.14973			**0.14973**		6.19	5.85			6.92		7.15	7.12	7.43	7.71	7.5
T-1	Boron, total	mg/L	0.14973			**0.14973**										0.227	0.141	0.15
T-2	Boron, total	mg/L	0.14973			**0.14973**										0.189	0.0718	0.0507
T-6	Boron, total	mg/L	0.14973			**0.14973**										0.201	0.214	0.21
AP-1	Calcium, total	mg/L	181.6			**181.6**	245	243	239	242	230	242	285	229	250	248	244	237
AP-2	Calcium, total	mg/L	181.6			**181.6**	265	236	241	248	217	210	244	204	210	194	206	222
AP-3	Calcium, total	mg/L	181.6			**181.6**	150	152	157	160	161	168	189	181	177	176	175	185
AP-11	Calcium, total	mg/L	181.6			**181.6**	127	149	102	141	169	145	118	134	150	217	126	124
AP-12	Calcium, total	mg/L	181.6			**181.6**	201	287	266	260	265	269	271	268	228	240	258	203
AP-14	Calcium, total	mg/L	181.6			**181.6**	225	215	217	236	209	233	235	278	263	245	237	253
AW-1	Calcium, total	mg/L	181.6			**181.6**		195				191		197	203	200	186	193
G120	Calcium, total	mg/L	181.6			**181.6**		263				274		257	265	259	240	263
T-1	Calcium, total	mg/L	181.6			**181.6**										105	183	172
T-2	Calcium, total	mg/L	181.6			**181.6**										150	218	211
AP-1	Chloride, total	mg/L	12.3			**12.3**	55	59	44	61	58	60	36	53	54	29	59	52.1
AP-2	Chloride, total	mg/L	12.3			**12.3**	36	35	34	34	36	37	54	40	39	36	39	35.1
AP-3	Chloride, total	mg/L	12.3			**12.3**	42	42	47	55	60	59	51	57	54	53	55.9	59.5
AP-4	Chloride, total	mg/L	12.3			**12.3**	12	16	13	14	14	14	13	14	13	13	15	12.3
AP-6	Chloride, total	mg/L	12.3			**12.3**	35	38	25	31	27	31	28	33	30	33	37	34.5
AP-7	Chloride, total	mg/L	12.3			**12.3**	64	66	36	58	45	70	39	60	42	43	50	62.1
AP-8	Chloride, total	mg/L	12.3			**12.3**	26	28	27	26	26	26	25	25	24	26	35	23.2
AP-9	Chloride, total	mg/L	12.3			**12.3**	24	64	30	27	36	60	28	26	25	39	29	23.6
AP-10	Chloride, total	mg/L	12.3			**12.3**		29	28	28	27	28	28	27	27	27	30	25.7
AP-11	Chloride, total	mg/L	12.3			**12.3**	83	119	29	105	140	123	79	90	122	429	90	91
AP-12	Chloride, total	mg/L	12.3			**12.3**	113	162	143	147	140	142	139	124	115	121	136	120
AP-13	Chloride, total	mg/L	12.3			**12.3**	35	27	103	26	29	26	26	27	27	26	27	25.8
AP-14	Chloride, total	mg/L	12.3			**12.3**	49	52	59	65	59	71	73	89	82	83	92	94
AW-1	Chloride, total	mg/L	12.3			**12.3**		40				41		40	40	40	41	37.3
RW-3	Chloride, total	mg/L	12.3			**12.3**	29	31	31	30	29	32	28	31	27	28	29	25.1
R111	Chloride, total	mg/L	12.3			**12.3**	202		25			219		< 4	6	22	185	202
G120	Chloride, total	mg/L	12.3			**12.3**		40				40		40	39	39	41	37.4
T-1	Chloride, total	mg/L	12.3			**12.3**										49	259	233
T-2	Chloride, total	mg/L	12.3			**12.3**										173	447	509

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

Table 1
City Water, Light and Power
CWLP CCR Surface Impoundments
2022 - 2024 Summary of Exceedances

Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
T-6	Chloride, total	mg/L	12.3			**12.3**										21	24	19.4
AP-1	pH	s.u.	6.7 - 7.87			**7.87**	6.57	6.58	6.65	6.68	6.6	6.52	6.51	6.71	6.51	6.31	6.7	6.54
AP-2	pH	s.u.	6.7 - 7.87			**7.87**	6.43	6.43	6.45	6.52	6.46	6.44	6.4	6.57	6.41	6.21	6.58	6.41
AP-3	pH	s.u.	6.7 - 7.87			**7.87**	6.6	6.58	6.6	6.65	6.58	6.64	6.53	6.69	6.55	6.36	6.2	6.48
AP-9	pH	s.u.	6.7 - 7.87			**7.87**	7.47	6.63	6.92	6.83	6.85	6.69	6.88	6.81	6.82	6.75	6.89	6.8
AP-10	pH	s.u.	6.7 - 7.87			**7.87**		6.69	6.7	6.76	6.58	6.68	6.57	6.82	6.65	6.54	6.53	6.73
AP-11	pH	s.u.	6.7 - 7.87			**7.87**	6.57	6.51	6.61	6.64	6.42	6.45	6.64	6.6	6.45	6.75	6.44	6.66
AP-12	pH	s.u.	6.7 - 7.87			**7.87**	6.53	6.44	6.56	6.6	6.47	6.43	6.57	6.62	6.53	6.52	6.43	6.59
AP-13	pH	s.u.	6.7 - 7.87			**7.87**	6.71	6.59	6.76	6.79	6.62	6.54	6.66	6.74	6.73	6.7	6.59	6.67
AP-14	pH	s.u.	6.7 - 7.87			**7.87**	6.93	6.95	6.94	7.05	6.69	6.97	6.93	7.06	6.93	6.95	6.76	6.93
AW-1	pH	s.u.	6.7 - 7.87			**7.87**	6.67	6.66	6.64	6.83	6.54	6.47	6.51	6.54	6.55	6.58	6.58	6.56
RW-3	pH	s.u.	6.7 - 7.87			**7.87**	7.27	7.2	7.11	7.21	6.15	7.06	7.13	7.31	7.1	6.7	7.23	7.13
R111	pH	s.u.	6.7 - 7.87			**7.87**	5.96	6.86	6.92	6.81	7.69	6.97	6.91	6.42	6.14	6.01	6.84	5.96
G120	pH	s.u.	6.7 - 7.87			**7.87**	6.77	6.73	6.7	6.7	6.62	6.54	6.79	6.78	6.47	6.65	6.81	6.55
T-1	pH	s.u.	6.7 - 7.87			**7.87**										6.57	6.51	6.57
T-2	pH	s.u.	6.7 - 7.87			**7.87**										6.51	6.37	6.54
T-4	pH	s.u.	6.7 - 7.87			**7.87**										6.31	6.68	6.65
T-5	pH	s.u.	6.7 - 7.87			**7.87**										6.62	6.86	6.82
T-6	pH	s.u.	6.7 - 7.87			**7.87**										6.56	6.77	6.97
AP-1	Sulfate, total	mg/L	55.5			**55.5**	732	791	753	777	56.8	768	443	740	790	805	836	849
AP-2	Sulfate, total	mg/L	55.5			**55.5**	583	532	545	643	485	462	795	380	393	411	417	440
AP-3	Sulfate, total	mg/L	55.5			**55.5**	410	408	384	444	461	483	467	495	512	493	554	558
AP-5	Sulfate, total	mg/L	55.5			**55.5**	57	35	66	36	37	44	43	45	50	43	63	59.2
AP-9	Sulfate, total	mg/L	55.5			**55.5**	23	57	27	28	38	64	24	23	23	22	25	17.7
AP-10	Sulfate, total	mg/L	55.5			**55.5**		86	87	96	96	100	100	91	96	100	108	89.4
AP-11	Sulfate, total	mg/L	55.5			**55.5**	67	88	120	89	105	89	65	81	89	134	77	63.4
AP-12	Sulfate, total	mg/L	55.5			**55.5**	402	678	607	691	641	659	632	563	460	499	612	457
AP-13	Sulfate, total	mg/L	55.5			**55.5**	134	135	64	142	133	146	139	151	118	140	135	121
AP-14	Sulfate, total	mg/L	55.5			**55.5**	670	681	639	736	699	707	714	806	679	740	821	909
AW-1	Sulfate, total	mg/L	55.5			**55.5**		344				399		384	369	401	406	388
G120	Sulfate, total	mg/L	55.5			**55.5**		464				500		555	503	535	534	565
T-1	Sulfate, total	mg/L	55.5			**55.5**										36	236	224
T-2	Sulfate, total	mg/L	55.5			**55.5**										135	181	142
T-4	Sulfate, total	mg/L	55.5			**55.5**										87	100	104
AP-1	Total Dissolved Solids	mg/L	609.21			**609.21**	1490	1550	1550	1540	7.4	1540	1190	1360	1400	1490	1530	1640
AP-2	Total Dissolved Solids	mg/L	609.21			**609.21**	1310	1270	1360	1310	1180	1100	1600	1020	1020	1040	1110	1160
AP-3	Total Dissolved Solids	mg/L	609.21			**609.21**	882	942	1030	920	1040	984	990	1080	935	1040	1170	1160
AP-9	Total Dissolved Solids	mg/L	609.21			**609.21**	224	618	565	595	586	638	515	524	530	535	558	740
AP-10	Total Dissolved Solids	mg/L	609.21			**609.21**		752	755	730	778	756	725	732	745	720	796	790
AP-11	Total Dissolved Solids	mg/L	609.21			**609.21**	606	778	550	625	820	726	670	640	665	1780	596	686
AP-12	Total Dissolved Solids	mg/L	609.21			**609.21**	998	1600	1540	1440	1440	1580	1640	1320	1290	1620	1670	1300
AP-13	Total Dissolved Solids	mg/L	609.21			**609.21**	486	530	690	525	495	538	530	465	500	910	560	655
AP-14	Total Dissolved Solids	mg/L	609.21			**609.21**	1240	1340	1390	1380	1280	1330	1480	1440	1510	1480	1610	1840
AW-1	Total Dissolved Solids	mg/L	609.21			**609.21**	1080	1060	1090	1100	1150			1220	1120	1010	1190	1100
RW-3	Total Dissolved Solids	mg/L	609.21			**609.21**	1030	428	428	425	420		290	340	335	345	344	470
R111	Total Dissolved Solids	mg/L	609.21			**609.21**	875	135	805	118	110			68	78	525	832	875

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

Table 1
City Water, Light and Power
CWLP CCR Surface Impoundments
2022 - 2024 Summary of Exceedances

Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
G120	Total Dissolved Solids	mg/L	609.21			**609.21**	1360	1440	1420	1400	1450			1390	1320	1320	1450	1430
T-1	Total Dissolved Solids	mg/L	609.21			**609.21**										700	1020	1060
T-2	Total Dissolved Solids	mg/L	609.21			**609.21**										1060	1430	1580
T-4	Total Dissolved Solids	mg/L	609.21			**609.21**										255	382	695
Appendix IV																		
AP-4	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	0.0306	< 0.025	0.0309	0.027	< 0.025	0.025	0.0239	0.0225	0.0375	0.0229	0.0207	0.0246
AP-7	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	0.0468	0.0376	< 0.025	< 0.025	0.0462	0.0412	0.075	0.0555	0.0395	0.0438	0.0947
AP-8	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	0.0319	0.0352	0.0377	0.034	0.0336	0.0348	0.0513	0.0395	0.0426	0.0461	0.0414	0.0386
AW-1	Arsenic, total	mg/L	0.0239	0.01		**0.0239**		0.148	0.192			0.152		0.208	0.16	0.153	0.129	0.168
RW-3	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	0.178	0.109	0.11	0.142	0.169	0.185	0.0831	0.74	0.306	0.188	0.107	0.214
AW-1	Barium, total	mg/L	0.51918	2		**2**		0.64				0.622		1.96	2.02	1.48	0.602	0.446
AP-2	Cobalt, total	mg/L	0.0052		0.006	**0.006**	0.0102	0.0089	0.0115	0.0111	0.0091	0.0102	0.0085	0.0091	0.0068	0.0102	0.0073	0.0085
AP-3	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	< 0.005	0.0054	< 0.005	0.0054	< 0.005	0.0051	< 0.005	0.0065	0.0071	< 0.005
AP-11	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	0.005	0.0061	0.011	< 0.005	0.0055	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-12	Cobalt, total	mg/L	0.0052		0.006	**0.006**	0.0143	0.0077	0.0219	0.007	< 0.005	< 0.005	< 0.005	0.0236	< 0.005	0.0054	< 0.005	< 0.005
AP-13	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	0.0215	0.021	< 0.005	< 0.005	< 0.005	0.0127	< 0.005	< 0.005	< 0.005	< 0.005
T-1	Cobalt, total	mg/L	0.0052		0.006	**0.006**										< 0.005	0.0063	< 0.005
T-2	Cobalt, total	mg/L	0.0052		0.006	**0.006**										0.0075	< 0.005	< 0.005
AP-12	Lead, total	mg/L	0.0075		0.015	**0.015**	0.0225	< 0.015	0.0228	< 0.015	< 0.015	< 0.015	< 0.015	0.0161	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-13	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	0.0163	0.0177	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-14	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	0.0189	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

TABLE 2:
Total Arsenic Summary Table

Table 2: Total Arsenic Summary Table

Well ID	Parameter	Units	GWPS	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4	2025-Q1	2025-Q2	2025-Q3	Average
AP-1	Arsenic, total	mg/L	0.0239	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001
AP-10	Arsenic, total	mg/L	0.0239	< 0.001	0.0011	< 0.001	< 0.001	0.0011	< 0.001	0.0015	0.0012	0.00111
AP-11	Arsenic, total	mg/L	0.0239	< 0.001	< 0.001	0.0037	< 0.001	< 0.001	0.0015	< 0.001	< 0.001	0.00140
AP-12	Arsenic, total	mg/L	0.0239	0.0149	0.0013	0.0038	0.0015	< 0.001	< 0.001	< 0.001	< 0.001	0.00319
AP-13	Arsenic, total	mg/L	0.0239	0.0075	0.0028	0.0032	0.0029	0.0038	< 0.001	0.0032	0.002	0.00330
AP-14	Arsenic, total	mg/L	0.0239	0.0036	0.0039	0.0019	0.0016	0.0022		0.0017	0.0011	0.00229
AP-2	Arsenic, total	mg/L	0.0239	0.002	0.0027	0.002	0.0031	0.0016	0.0022	0.0013	0.0014	0.00204
AP-3	Arsenic, total	mg/L	0.0239	0.0182	0.0101	0.0021	0.008	0.0182	0.0137	0.0103	0.016	0.0121
AP-4	Arsenic, total	mg/L	0.0239	0.0225	0.0375	0.0229	0.0207	0.0246	0.021	0.0223	0.0248	0.0245
AP-5	Arsenic, total	mg/L	0.0239	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.00100
AP-6	Arsenic, total	mg/L	0.0239	0.0183	0.0068	0.0121	0.0074	0.0108	0.012	0.0037	0.0068	0.00974
AP-7	Arsenic, total	mg/L	0.0239	0.075	0.0555	0.0395	0.0438	0.0947	0.0248	0.0289	0.0289	0.0489
AP-8	Arsenic, total	mg/L	0.0239	0.0395	0.0426	0.0461	0.0414	0.0386	0.0487	0.0446	0.0389	0.0426
AP-9	Arsenic, total	mg/L	0.0239	0.0062	0.0037	0.0024	0.0028	0.0019	0.0023	0.0014	0.0013	0.00275
AW-1	Arsenic, total	mg/L	0.0239	0.208	0.16	0.153	0.129	0.168	0.146	0.0016	0.0098	0.122
AW-2	Arsenic, total	mg/L	0.0239	0.0266	0.0235	0.0175	0.018	0.013	0.0017	0.0166	0.011	0.0160
G110	Arsenic, total	mg/L	0.0239	0.0053	0.0057	0.0058	0.0046	0.0058	0.0044	0.0047		0.00519
G112	Arsenic, total	mg/L	0.0239	0.0021	< 0.001	< 0.001	< 0.001	< 0.001	0.001	< 0.001		0.00116
G113	Arsenic, total	mg/L	0.0239	< 0.001	0.0029	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001		0.00127
G120	Arsenic, total	mg/L	0.0239	0.0162	0.0116	0.0121	0.0104	0.0119	0.0113	0.0114	0.0115	0.0121
G121	Arsenic, total	mg/L	0.0239	0.0221	0.0173	0.0146	0.0084	0.016	0.0169	0.018	0.0044	0.0147
G122	Arsenic, total	mg/L	0.0239	0.0046	0.0028	0.0035	0.0019	0.0029	0.001	0.0027	0.0029	0.00279
GP7	Arsenic, total	mg/L	0.0239								0.0072	0.00720
P03D	Arsenic, total	mg/L	0.0239								0.0017	0.00170
P04D	Arsenic, total	mg/L	0.0239								0.0027	0.00270
P07D	Arsenic, total	mg/L	0.0239				0.0394	0.036	0.0276	0.0324	0.0255	0.0322
P103	Arsenic, total	mg/L	0.0239								0.0018	0.00180
P104	Arsenic, total	mg/L	0.0239								0.0055	0.00550
R101	Arsenic, total	mg/L	0.0239	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0021	< 0.001	0.00114
R111	Arsenic, total	mg/L	0.0239	0.0019	0.0015	0.0175	0.0166	0.0185	0.0156	0.0215		0.0133
RW-3	Arsenic, total	mg/L	0.0239	0.74	0.306	0.188	0.107	0.214	0.0961	0.0808	0.103	0.229
T-1	Arsenic, total	mg/L	0.0239			< 0.001	0.0048	0.0019	0.0023	< 0.001	0.0016	0.00210
T-2	Arsenic, total	mg/L	0.0239			0.0023	0.0053	0.006	0.0073	0.0056	0.0068	0.00555
T-4	Arsenic, total	mg/L	0.0239			0.0013	0.0055	0.0055	0.0049	0.0039	0.0038	0.00415
T-5	Arsenic, total	mg/L	0.0239			< 0.001	< 0.001	0.0016	< 0.001	< 0.001	0.0014	0.00117
T-6	Arsenic, total	mg/L	0.0239			0.0076	0.0108	0.0158	0.0037	0.0195	0.0086	0.0110

TABLE 3:
Total Cobalt Summary Table

Table 3: Total Cobalt Summary Table

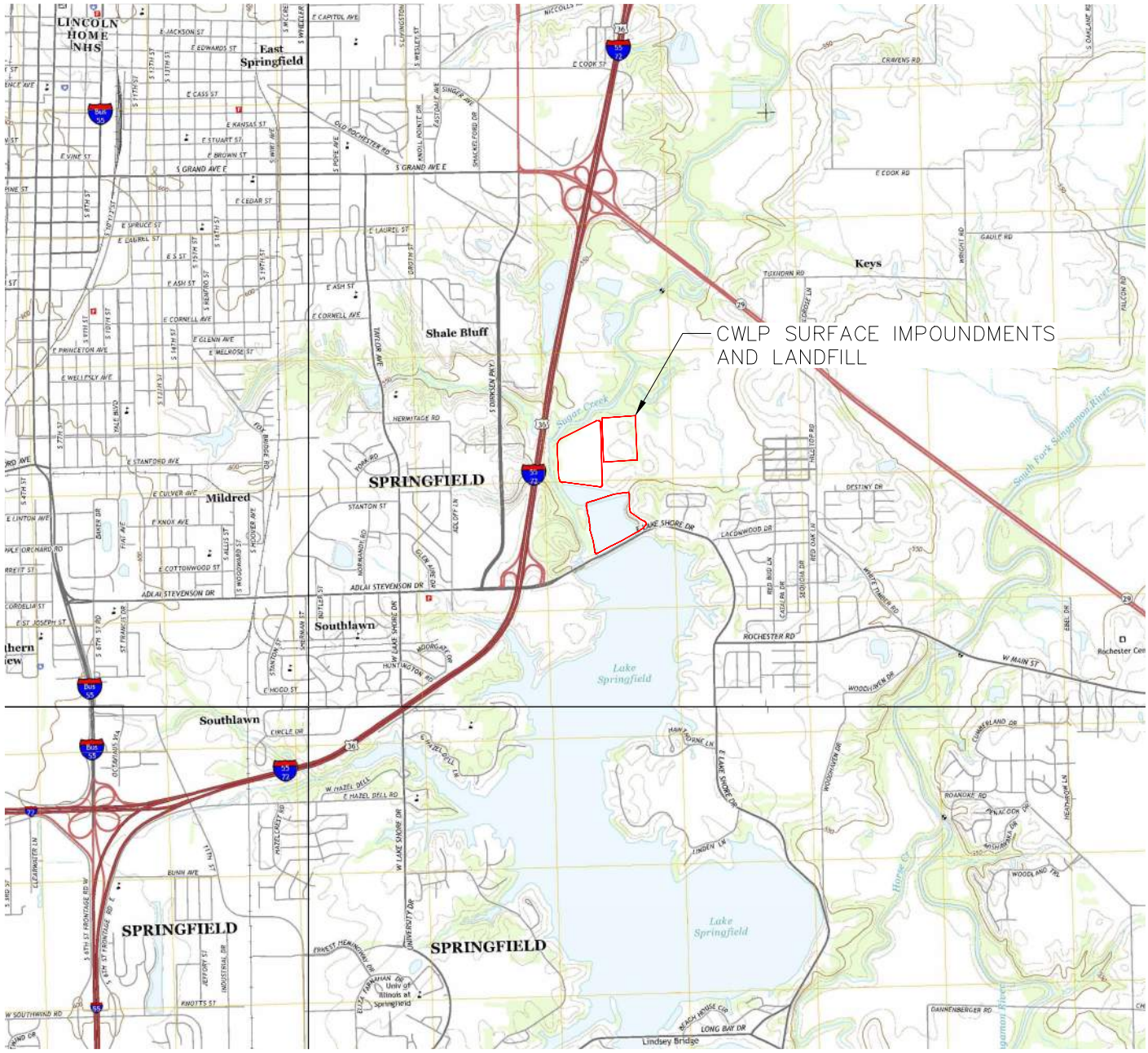
Well ID	Parameter	Units	GWPS	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4	2025-Q1	2025-Q2	2025-Q3	Average
AP-1	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
AP-10	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
AP-11	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
AP-12	Cobalt, total	mg/L	0.0052	0.0236	< 0.005	0.0054	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00738
AP-13	Cobalt, total	mg/L	0.0052	0.0127	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00596
AP-14	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		< 0.005	< 0.005	0.005
AP-2	Cobalt, total	mg/L	0.0052	0.0091	0.0068	0.0102	0.0073	0.0085	0.014	0.0095	0.0127	0.00976
AP-3	Cobalt, total	mg/L	0.0052	0.0051	< 0.005	0.0065	0.0071	< 0.005	0.0057	0.0081	0.0076	0.00626
AP-4	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0083	0.0075	0.00573
AP-5	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
AP-6	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
AP-7	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
AP-8	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
AP-9	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
AW-1	Cobalt, total	mg/L	0.0052	< 0.005	0.0055	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00506
AW-2	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
G110	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		0.005
G112	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		0.005
G113	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		0.005
G120	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0058	< 0.005	0.00510
G121	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
G122	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
P07D	Cobalt, total	mg/L	0.0052				< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
R101	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0088	< 0.005	0.00548
R111	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		0.005
RW-3	Cobalt, total	mg/L	0.0052	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
T-1	Cobalt, total	mg/L	0.0052			< 0.005	0.0063	< 0.005	< 0.005	0.0055	0.0063	0.00552
T-2	Cobalt, total	mg/L	0.0052			0.0075	< 0.005	< 0.005	< 0.005	< 0.005	0.0062	0.00562
T-4	Cobalt, total	mg/L	0.0052			< 0.005	0.005	< 0.005	0.0052	< 0.005	< 0.005	0.00503
T-5	Cobalt, total	mg/L	0.0052			< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
T-6	Cobalt, total	mg/L	0.0052			< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005

FIGURES

Figure 1: Site Location
Figure 2: Site Features with Current Monitor Well Network
Figure 3: Extent of Total Arsenic Exceedances
Figure 4: Extent of Total Cobalt Exceedances

FIGURE 1:
Site Location

J:\S\Springfield CWLP\CWLP Ash Pond\DWG\2025\Site Map.dwg Tab: Layout1





NOTE:
BACKGROUND IMAGE COURTESY OF UNITED STATES GEOLOGICAL SURVEY.

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
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PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: KWF | DESIGNED BY: KWF | DRAWN BY: BCK

SITE LOCATION

PLANS PREPARED FOR
CITY, WATER, LIGHT & POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

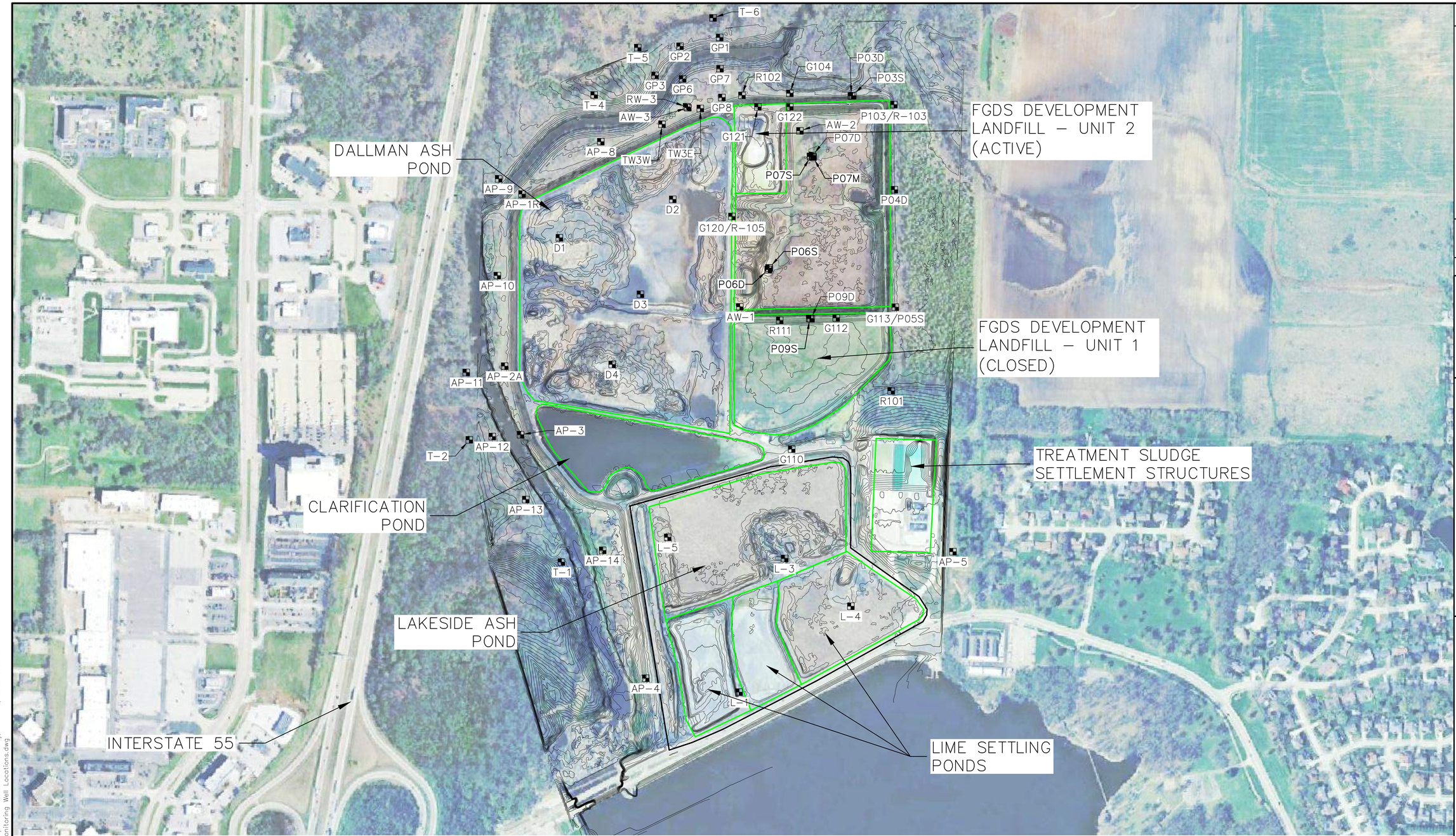
DATE: SEPTEMBER 2025
PROJECT ID: 240338/0014
SHEET NUMBER:

FIG. 1

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FIGURE 2:

Site Features with Current Monitor Well Network



LEGEND

- POND/LANDFILL BOUNDARY
- IMPOUNDMENT BOUNDARY
- ▲ TEMPORARY ASSESSMENT WELL
- ○ PIEZOMETER
- ◔ PART 257 GROUNDWATER MONITORING WELL

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.

N

0 250 500 1000

SCALE: IN FEET

NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
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PH (217) 787-2334 WWW.ANDREWS-ENG.COM
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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

MONITORING WELL LOCATIONS

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: APRIL 2025

PROJECT ID: 240338/0016

SHEET NUMBER:

FIG. 3

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Tab: FIG 3 Last Saved: April 4, 2025, by Ben Karpus Plotted: Wednesday, June 11, 2025 8:21:38 AM
J:\S\Springfield CWLP\CWLP Ash Pond\DWG\2025\Monitoring Well Locations.dwg

FIGURE 3:

Extent of Total Arsenic Exceedances

LEGEND

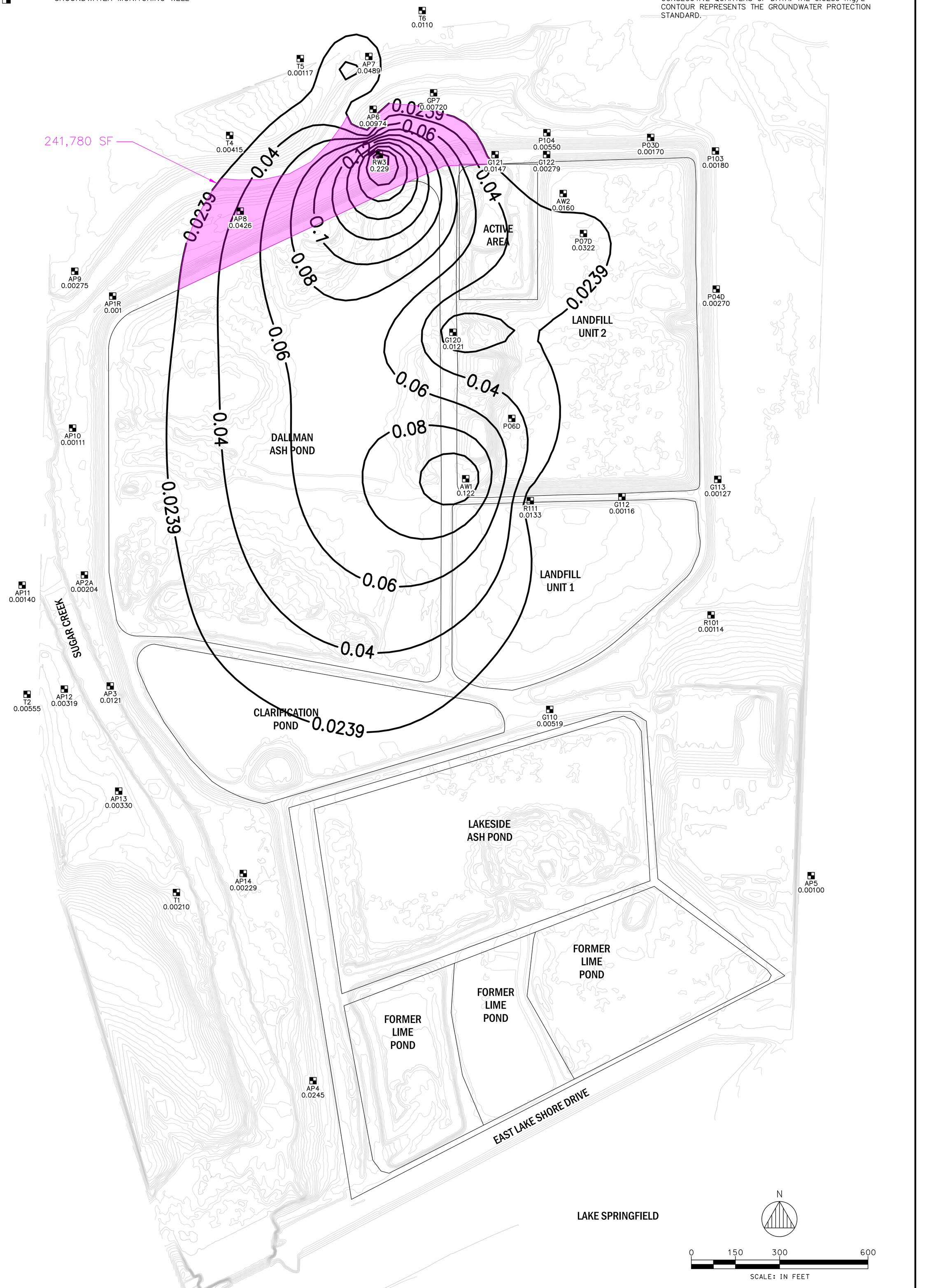
550 — EXISTING GROUND CONTOURS

100 — ARSENIC TOTAL CONTOURS (mg/L)

GROUNDWATER MONITORING WELL

NOTES

1. FLIGHT DATE APRIL 2023.
2. PLUME CONTOUR INTERVAL SHOWN IS 0.02 mg/L.
3. ARSENIC TOTAL PLUME BASED ON AVERAGE OF 8 CONSECUTIVE QUARTERS OF DATA. THE 0.0239 mg/L CONTOUR REPRESENTS THE GROUNDWATER PROTECTION STANDARD.



EXTENT OF TOTAL ARSENIC EXCEEDANCES

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

SHEET NUMBER: 3

PROJECT ID: 240336/0014

DATE: SEPTEMBER 2025

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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: MPN

NO.	DATE	REVISION DESCRIPTION	BY

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FIGURE 4:
Extent of Total Cobalt Exceedances

LEGEND

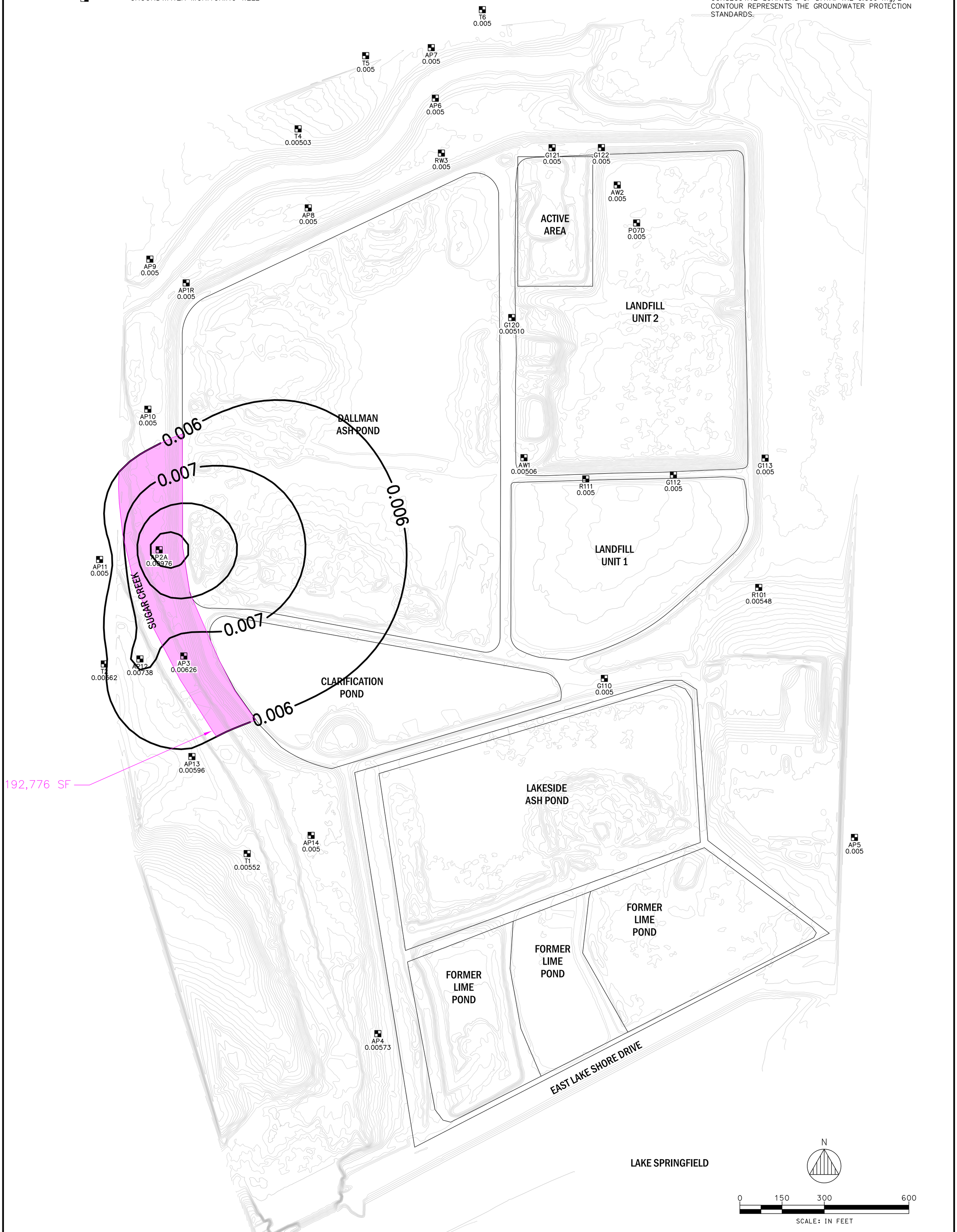
550 — EXISTING GROUND CONTOURS

10 — COBALT TOTAL CONTOURS (mg/L)

GROUNDWATER MONITORING WELL

NOTES

1. FLIGHT DATE APRIL 2023.
2. PLUME CONTOUR INTERVAL SHOWN IS 0.001 mg/L.
3. COBALT TOTAL PLUME BASED ON AVERAGES OF 8 CONSECUTIVE QUARTERS OF DATA. THE 0.006 mg/L CONTOUR REPRESENTS THE GROUNDWATER PROTECTION STANDARDS.



SHEET NUMBER: 4	PROJECT ID: 240338/0014	DATE: SEPTEMBER 2025	EXTENT OF TOTAL COBALT EXCEEDANCES

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

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APPROVED BY: MTH	DESIGNED BY: MTH	DRAWN BY: MPN

NO.	DATE	REVISION DESCRIPTION	BY

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APPENDICES

Appendix A: Boring Logs/Well Completion Reports: T-1, T-2, T-4, T-5 and T-6

Appendix B: Potentiometric Surface Maps

Appendix C: Slug Test Results and Boring Logs for P-6R/P-7R

Appendix D: Analytical Summary

Appendix E: Exceedance parameter Trend Graphs

Appendix F: Cross Sections

Appendix G: Laboratory Analytical Reports

Appendix H: Boring Log and Well Completion Report for P06D

Appendix I: Boring Log/Well Completion Report and Laboratory Report for GP-7

APPENDIX A:

Boring Logs/Well Completion Reports: T-1, T-2, T-4, T-5 and T-6

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1128150.33
Easting: 2455538.81

Weather: Sunny 66 F

Boring Information:
Boring No: B1
Well No: T1
Surf Elev.: 535.33

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 05/01/2024
Finish: 05/01/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	535.3
0							Dark brown silty CLAY (topsoil); Sample CS1A	
	1		4.0/5		0.25		Dark brown silty CLAY; moist	
5								530.0
	2		5.0/5		0.25		Sample CS2 7.0-7.5'; saturated 7.5'	
10							Free water 9.5'	
							Light brown silty CLAY; gray mottling; Sample CS3A 11.0-11.3'	525.0
	3		5.0/5		2.0		Sample CS3B 13.0-13.5'	
					2.75			
15					1.75			520.0
					0.5		Sample CS4A 15.5-16.0'	
	4		3.0/4.5				Brown SAND and GRAVEL; fine to coarse grained; silty clay matrix	
							Gray SANDSTONE; weathered	
							Greenish gray SANDSTONE; fine grained	
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1128803.76
Easting: 2455006.85

Weather: Sunny 66 F

Boring Information:
Boring No: B2
Well No: T2
Surf Elev.: 547.22

Depth Information:
Total: 35.0'
Auger: 35.0'
Core: -

Dates:
Start: 05/01/2024
Finish: 05/01/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	547.2
0							Dark brown silty CLAY (topsoil); Sample CS1A 0-0.5	
							Brown silty CLAY; moist; Sample CS1B 2.5-3.0	
	1		4.3/5		3.0 3.0			545.0
5							Brown clayey SILT; greenish gray mottling; moist	
	2		4.0/5					540.0
					2.25		Sample CS2A 8.0-8.5'	
10							Sample CS3A 11.0-11.5	
							Dark brown CONCRETIONS; Sample CS3B 12.1-12.3'	535.0
	3		5.0/5				Brown silty CLAY; Sample CS3C	
					1.5			
15								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: B2 Boring No: B2 Well No: T2

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Sample CS4	
	4		5.0/5		4.75			530.0
20	5		2.0/2					
							Gray clayey SILT; brown mottling; moist; trace black organics	525.0
	6		3.0/3		3.25		Sample CS6A 23-23.5'	
25					1.25		Increasing black organics; Sample CS7A 25.5-26	
							Gray silty CLAY; brown mottling; moist; trace organics	520.0
	7		5.0/5		1.75		Sample CS7B 27.0-28.0'	
30								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: B2 Boring No: B2 Well No: T2

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Sample CS8A	
							Gray to brownish gray SHALE; weathered; wet; Sample CS8B	
	8		5.0/5				Gray SHALE; Sample CS8C 32.25-33.0'	515.0
35							End of Boring = 35 Feet	
								510.0
40								
								505.0
45								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1130726.70
Easting: 2455622.14

Weather: Cloudy 50 F

Boring Information:
Boring No: B4
Well No: T4
Surf Elev.: 546.56

Depth Information:
Total: 35.0'
Auger: 35.0'
Core: -

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

Dates:
Start: 04/26/2024
Finish: 04/26/2024

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	546.6
0	1		4.7/5		0.5		Brown silty CLAY; moist; organics	545.0
5	2		5.0/5		3.5 >5		Brown clayey SILT; moist; trace organics; becoming more dense with depth	540.0
10	3		5.0/5		0.5		Black organics; Sample CS3A	535.0
					0.25		Brown silty CLAY; Sample CS3B	
15								

Notes:

Andrews Engineering, Inc.
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Springfield, IL 62711

FIELD BORING LOG

Boring Information: B4 Boring No: B4 Well No: T4

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Brown clayey SILT; moist	
					0.25			530.0
	4		3.6/5				Brown silty CLAY; moist; medium to fine coarse gravel	
					0.5			
							Gray SHALE; weathered	
							Gray SHALE; weathered; moist	
20								
	5		3.6/5					525.0
25							End of Boring = 25 Feet	
								520.0
30								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1130996.32
Easting: 2455852.04

Weather: Sunny 43 F

Boring Information:
Boring No: B5
Well No: T5
Surf Elev.: 538.15

Depth Information:
Total: 20.0'
Auger: 20.0'
Core: -

Dates:
Start: 04/25/2024
Finish: 04/25/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	538.2
0							Brown SILT; moist	
					0.25			
							Dark brown silty CLAY; moist	
	1		4.6/5		2.0			535.0
							Dark brown silty CLAY; brown/tan mottling; moist	
					2.25		Olive green to brown silty CLAY; mottling; moist	
5								
	2		4.8/5		2.25		8.0' Free water	530.0
10							Brown SAND; fine grained; with silt; saturated	
							Olive green clayey SILT; brown mottling	
					>5.0			
	3		3.8/5				Gray SHALE; weathered	525.0
15								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: B5 Boring No: B5 Well No: T5

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	4		1.6/5				Black SHALE; saturated	520.0
20							End of Boring = 20 Feet	515.0
25								510.0
30								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1131175.15
Easting: 2456259.47

Weather: Sunny 43 F

Boring Information:
Boring No: B6
Well No: T6
Surf Elev.: 535.96

Depth Information:
Total: 42.2'
Auger: 42.2'
Core: -

Dates:
Start: 04/25/2024
Finish: 04/25/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	536.0
0							Dark brown silty CLAY (topsoil)	
					1.5			535.0
	1		4.1/5				Greenish brown silty CLAY; moist; trace organics	
5							Greenish brown silty CLAY; gray mottling; trace organics	
	2		4.2/5		2.0			530.0
10							Gray/brown clayey SILT; greenish mottling; moist	
	3		5.0/5		4.5			525.0
							14.0' Wet	
15								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: B6 Boring No: B6 Well No: T6

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Gray silty CLAY; trace brown mottling; organics	520.0
	4		5.0/5		1.75		18.0' Saturated	
20							Gray CLAY; saturated; soft	
					0.25			515.0
	5		5.0/5				Dark gray SILT; saturated	
25							Dark gray silty CLAY; saturated; small gravel	
								510.0
	6		4.7/5					
					0.5			
30								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: B6 Boring No: B6 Well No: T6

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Dark gray SILT; saturated; trace white clasts	505.0
	7		5.0/5		0.5			
35					0.5			500.0
	8		3.5/5				Gray SILT to silty SAND; fine to coarse grained	
40							Gray SHALE (bedrock)	
	9		1.5/5					495.0
							End of Boring = 42.2 Feet	
45								

Notes:

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: T1

Site Name: CWLP Borehole #: B1

Coordinates: X 1128150.33 Y 2455538.81 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: Lisa Mauntel

Date Well Started: 05/01/2024 Date Well Finished: 05/01/2024 Date Form Completed: 06/06/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite chips

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

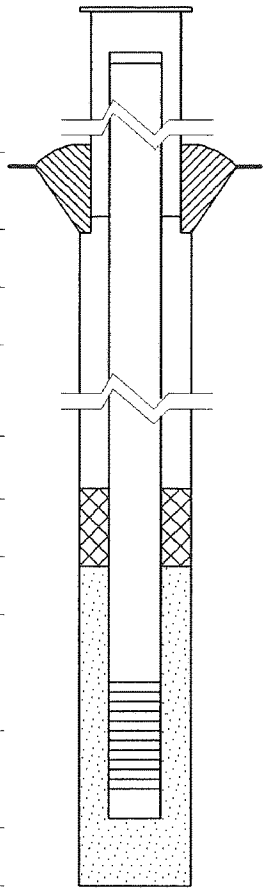
Type of sand pack: Quartz sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)	
536.10	-2.45	Top of Protective Casing
535.65	-2.00	Top of Riser Pipe
533.65	0	Ground Surface
531.83	3.50	Top of Annular Sealant
	NA	Static Water Level Measured on (after completion)
529.83	5.50	Top of Seal
527.29	8.04	Top of Sandpack
525.77	9.56	Top of Screen
516.27	19.06	Bottom of Screen
515.83	19.50	Bottom of Well
515.83	19.50	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	9.88
Bottom of Screen to End Cap (ft)	0.44
Screen Length (1st slot to last slot) (ft)	9.50
Total Length of Casing (ft)	19.82
Screen Slot Size*	#10 (0.01')

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: T2

Site Name: CWLP Borehole #: B2

Coordinates: X 1128803.76 Y 2455006.85 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: Lisa Mauntel

Date Well Started: 05/01/2024 Date Well Finished: 05/01/2024 Date Form Completed: 06/06/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

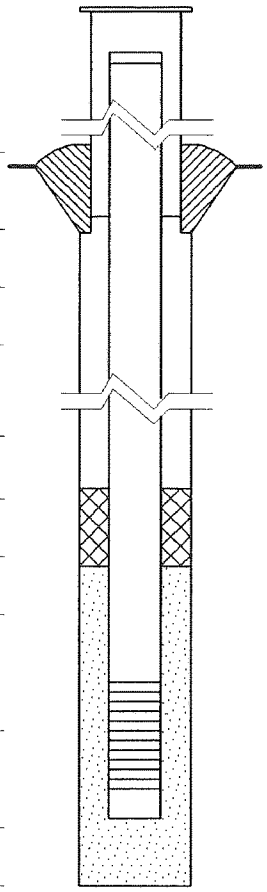
Type of sand pack: Quartz sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)	
549.86	-2.64	Top of Protective Casing
549.62	-2.4	Top of Riser Pipe
547.22	0	Ground Surface
544.22	3.00	Top of Annular Sealant
	NA	Static Water Level Measured on (after completion)
526.12	21.10	Top of Seal
524.02	23.20	Top of Sandpack
522.46	24.76	Top of Screen
512.96	34.26	Bottom of Screen
512.22	35.00	Bottom of Well
512.22	35.00	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	27.16
Bottom of Screen to End Cap (ft)	0.44
Screen Length (1st slot to last slot) (ft)	9.50
Total Length of Casing (ft)	37.40
Screen Slot Size*	#10 (0.01')

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: T4

Site Name: CWLP Borehole #: B4

Coordinates: X 1130726.70 Y 2455622.14 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: Lisa Mauntel

Date Well Started: 04/26/2024 Date Well Finished: 04/26/2024 Date Form Completed: 06/06/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

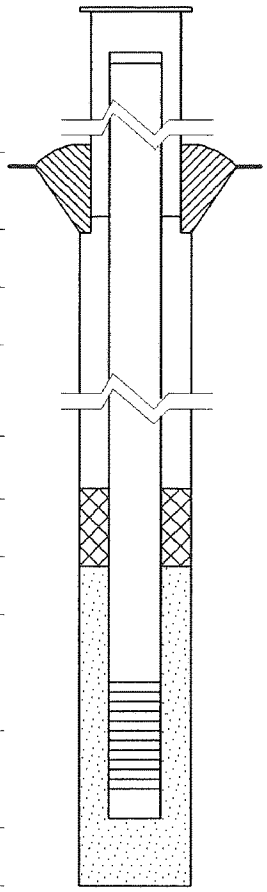
Type of sand pack: Quartz sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)	
549.43	-2.87	Top of Protective Casing
548.94	-2.38	Top of Riser Pipe
546.56	0	Ground Surface
543.56	3.00	Top of Annular Sealant
	NA	Static Water Level Measured on (after completion)
534.76	11.80	Top of Seal
532.66	13.90	Top of Sandpack
531.43	15.13	Top of Screen
521.94	24.62	Bottom of Screen
521.56	25.00	Bottom of Well
521.56	25.00	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	17.51
Bottom of Screen to End Cap (ft)	0.44
Screen Length (1st slot to last slot) (ft)	9.49
Total Length of Casing (ft)	27.38
Screen Slot Size*	#10 (0.01')

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: T4S

Site Name: FGDS Development Borehole #: T4S

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 13 " Longitude: -89 ° 36 ' 3 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB, 2 ' split spoon Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/20/2025 Date Well Finished: 5/20/2025 Date Form Completed: 6/3/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: n/a

Installation method: _____

Setting time: _____

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 24+ hours

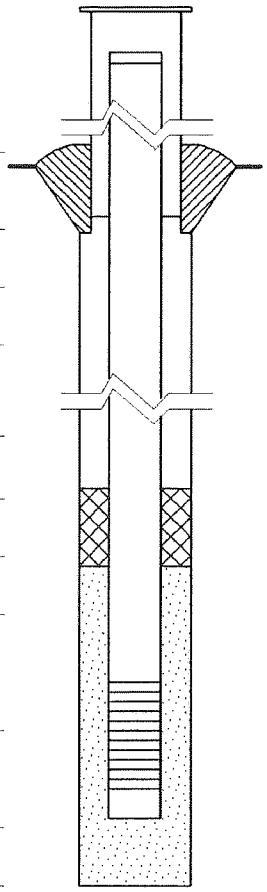
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
549.25	-2.5	Top of Protective Casing
549.04	-2.29	Top of Riser Pipe
546.75	0.0	Ground Surface
_____	_____	Top of Annular Sealant
_____	_____	Static Water Level Measured on (after completion)
544.75	2.0	Top of Seal
538.85	7.9	Top of Sandpack
536.83	9.93	Top of Screen
532.15	14.6	Bottom of Screen
531.75	15.0	Bottom of Well
531.75	15.0	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	12.21
Bottom of Screen to End Cap (ft)	0.4
Screen Length (1st slot to last slot) (ft)	4.68
Total Length of Casing (ft)	17.29
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: T5

Site Name: CWLP Borehole #: B5

Coordinates: X 1130996.32 Y 2455852.04 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: Lisa Mauntel

Date Well Started: 04/25/2024 Date Well Finished: 04/25/2024 Date Form Completed: 06/06/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

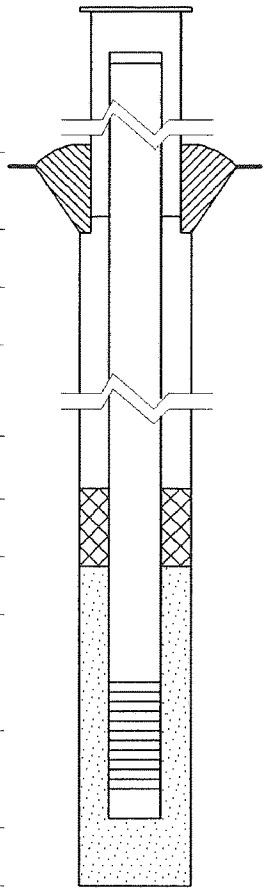
Type of sand pack: Quartz sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)	
541.00	-2.85	Top of Protective Casing
540.66	-2.51	Top of Riser Pipe
538.15	0	Ground Surface
535.15	3.00	Top of Annular Sealant
	NA	Static Water Level Measured on (after completion)
531.55	6.60	Top of Seal
529.35	8.80	Top of Sandpack
528.22	9.93	Top of Screen
518.72	19.43	Bottom of Screen
518.29	19.86	Bottom of Well
518.29	19.86	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	12.44
Bottom of Screen to End Cap (ft)	0.43
Screen Length (1st slot to last slot) (ft)	9.50
Total Length of Casing (ft)	22.37
Screen Slot Size*	#10 (0.01')

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: T6

Site Name: CWLP Borehole #: B6

Coordinates: X 1131175.15 Y 2456259.47 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: Lisa Mauntel

Date Well Started: 04/25/2024 Date Well Finished: 04/25/2024 Date Form Completed: 06/06/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

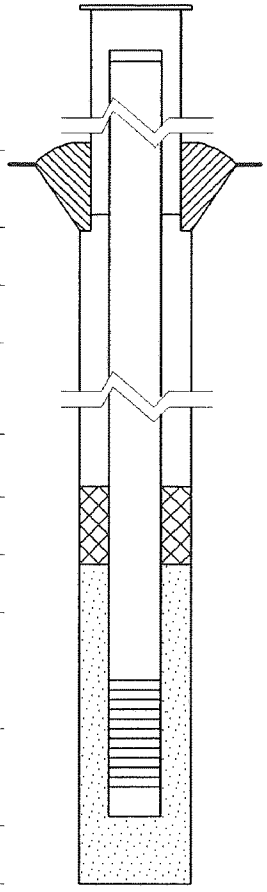
Type of sand pack: Quartz sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



	ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing		
Top of Riser Pipe	538.32	-2.36
Ground Surface	535.96	0
Top of Annular Sealant	532.96	3.00
Static Water Level Measured on (after completion)		NA
Top of Seal	507.96	28.00
Top of Sandpack	505.76	30.20
Top of Screen	503.92	32.04
Bottom of Screen	494.20	41.76
Bottom of Well	493.85	42.11
Bottom of Borehole	493.85	42.11

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	32.85
Bottom of Screen to End Cap (ft)	0.35
Screen Length (1st slot to last slot) (ft)	9.72
Total Length of Casing (ft)	42.92
Screen Slot Size*	#10 (0.01')

*Hand-slotted well screens are unacceptable.

APPENDIX B:
Potentiometric Surface Maps

LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL
- ○ PIEZOMETER
- ◔ PART 257 GROUNDWATER MONITORING WELL
- ◪ PART 845 GROUNDWATER MONITORING WELL
- ☒ SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.

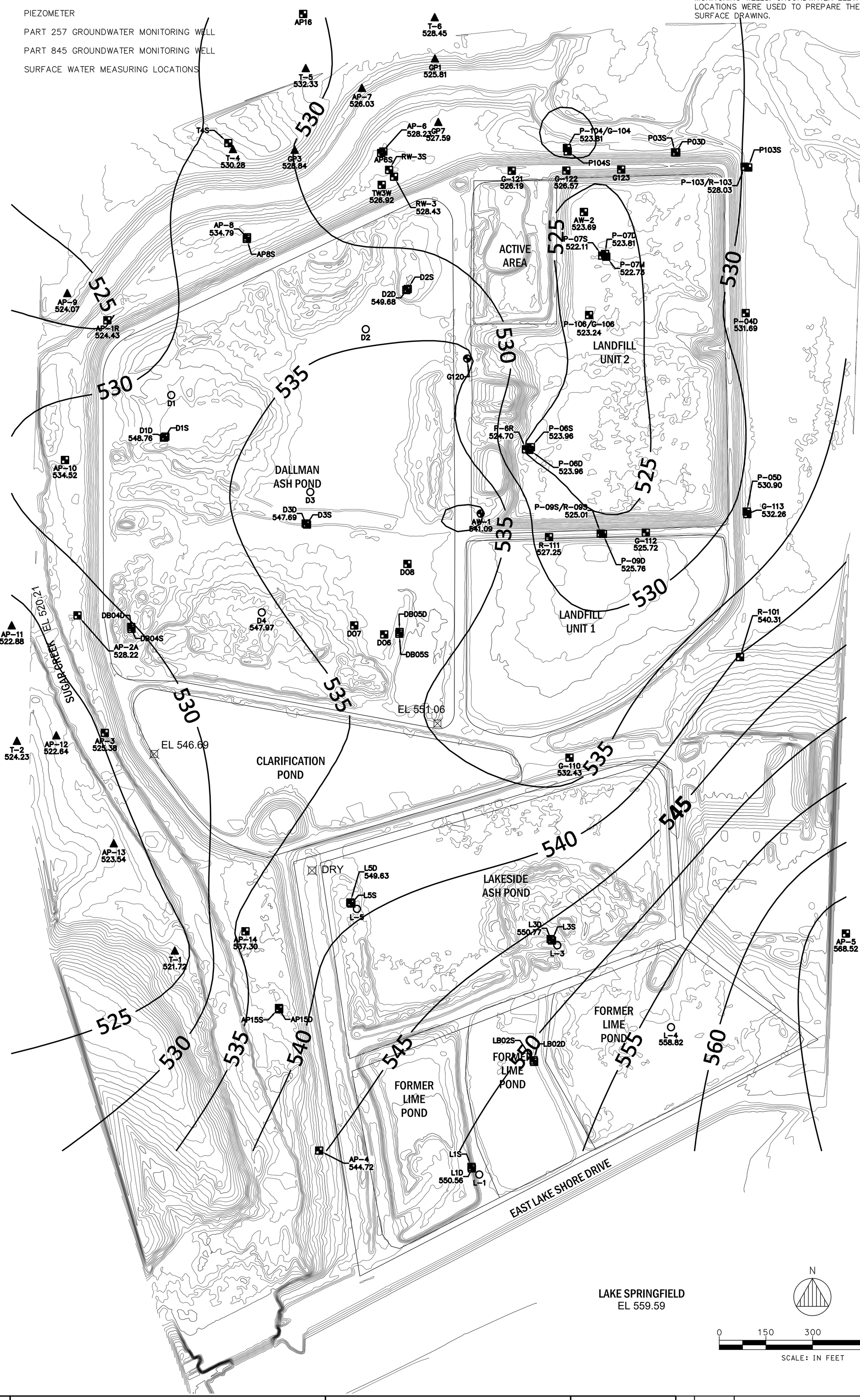


FIG. 1

POTENTIOMETRIC SURFACE MAP
JANUARY 27, 2025

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2025
PROJECT ID: 240338/0014
SHEET NUMBER:

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

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LEGEND

- 550 — EXISTING GROUND CONTOURS
- 540 — GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL
- ○ PIEZOMETER
- ◕ PART 257 GROUNDWATER MONITORING WELL
- ▪ PART 845 GROUNDWATER MONITORING WELL
- ⊠ SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.

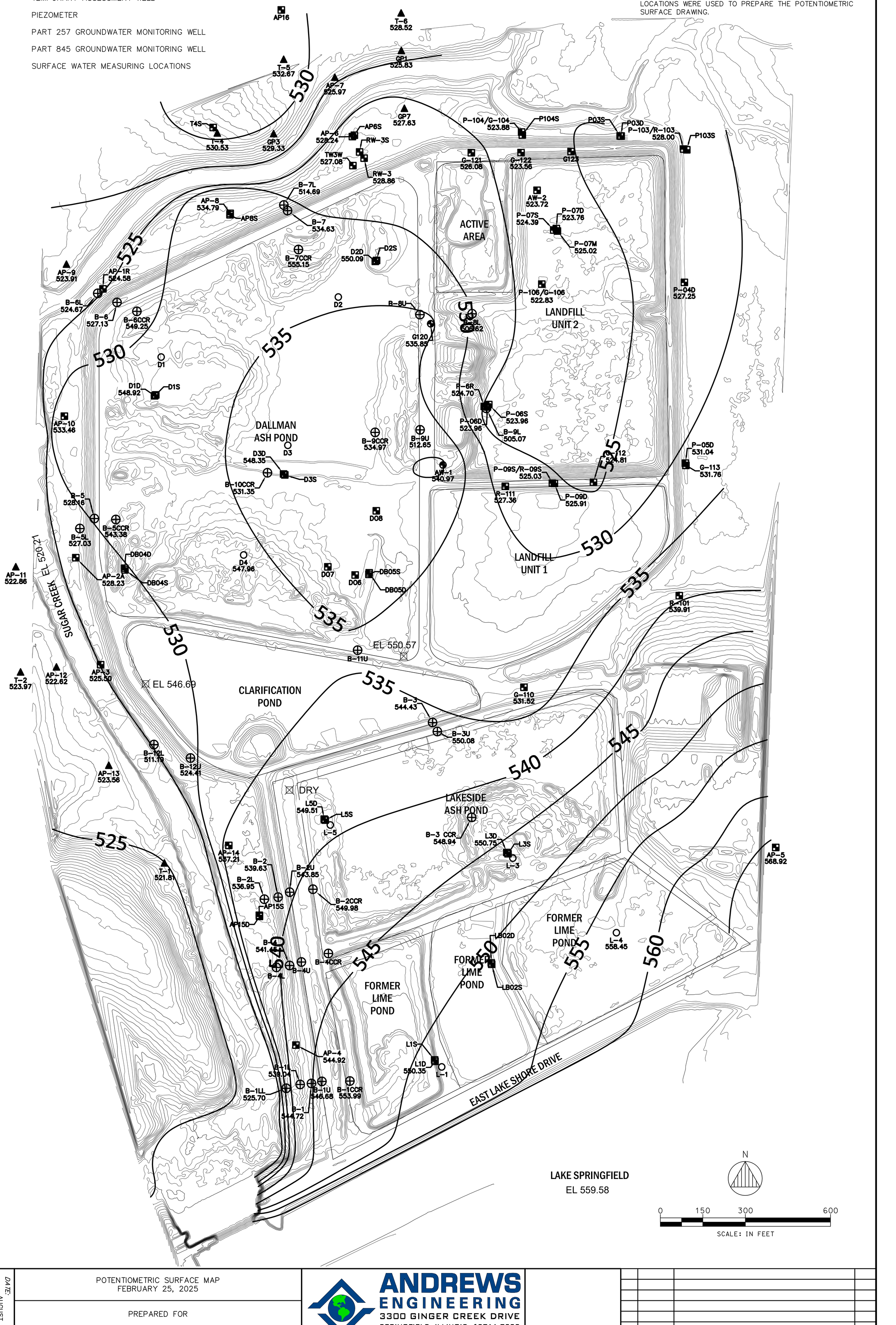


FIG. 2

SHEET NUMBER:

PROJECT ID: 240338/0014

DATE: AUGUST 2025

POTENTIOMETRIC SURFACE MAP
FEBRUARY 25, 2025

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

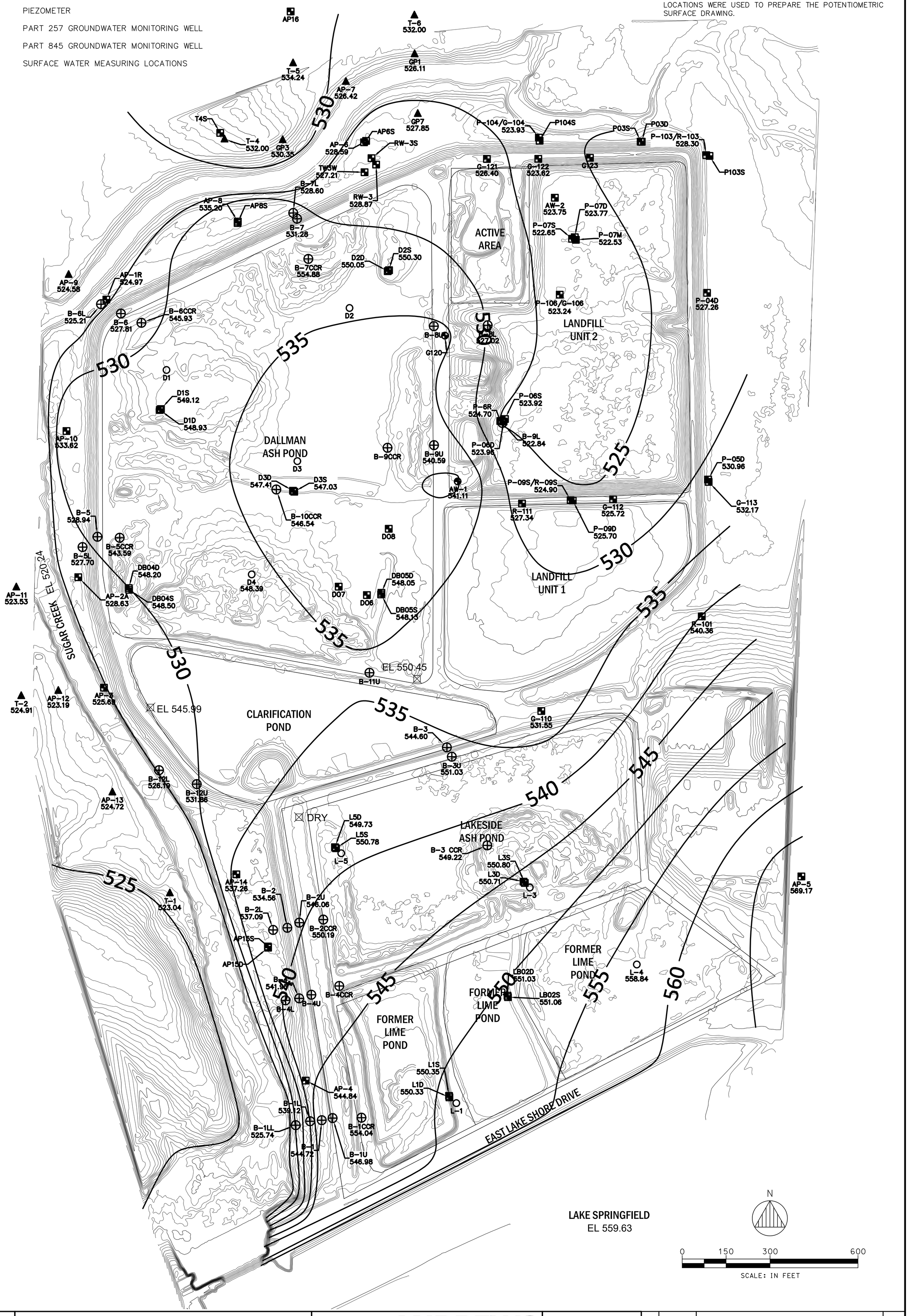
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LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL
- ○ PIEZOMETER
- ◔ PART 257 GROUNDWATER MONITORING WELL
- ▪ PART 845 GROUNDWATER MONITORING WELL
- ☒ SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.



LAKE SPRINGFIELD
EL 559.63

N

0 150 300 600
SCALE: IN FEET

FIG. 3

POTENTIOMETRIC SURFACE MAP
MARCH 28, 2025

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2025
PROJECT ID: 240338/0014
SHEET NUMBER:

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

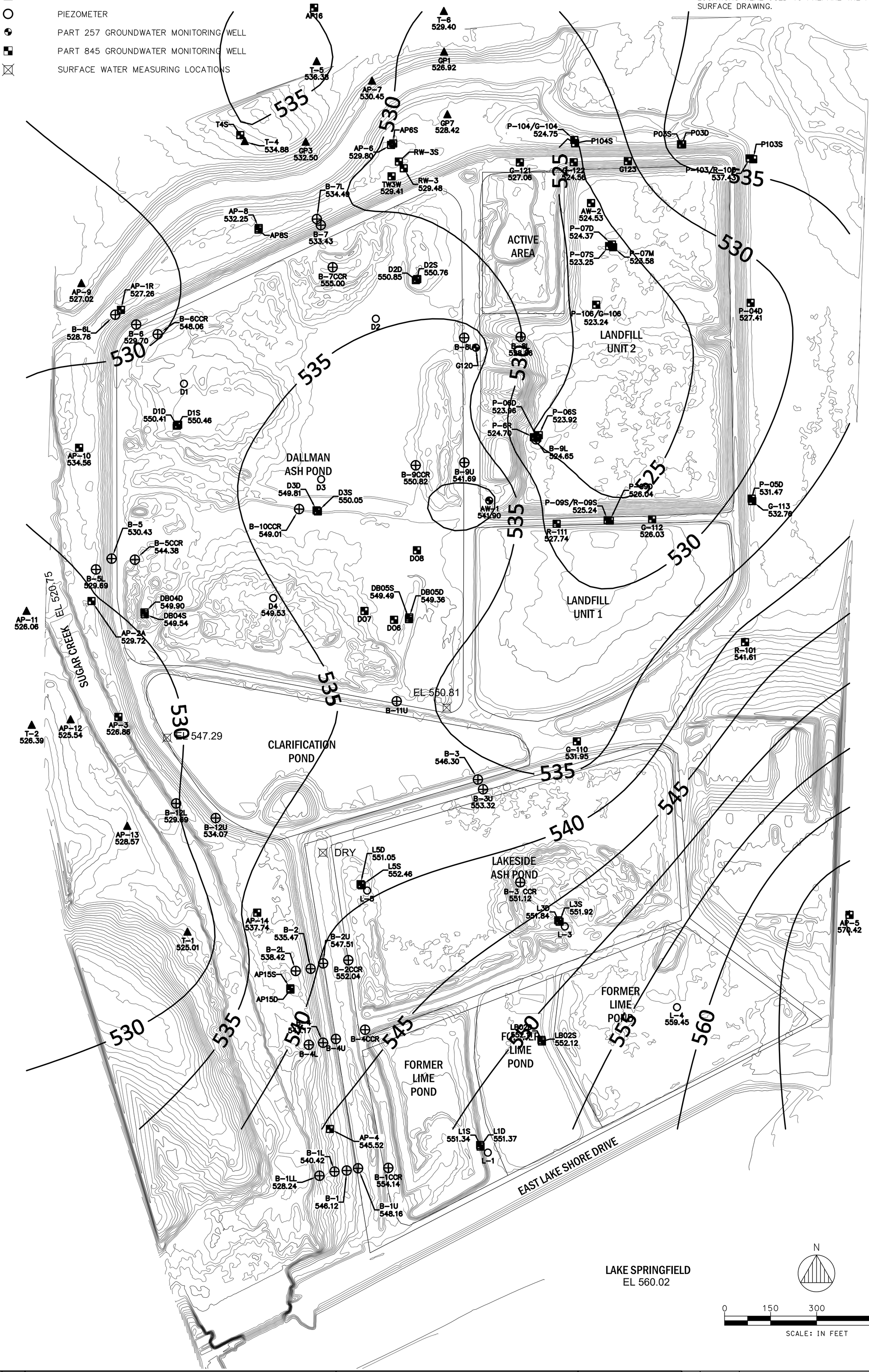
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LEGEND

- 550 — EXISTING GROUND CONTOURS
- 540 — GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL
- ○ PIEZOMETER
- ◕ PART 257 GROUNDWATER MONITORING WELL
- ■ PART 845 GROUNDWATER MONITORING WELL
- ⊠ SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.



LAKE SPRINGFIELD
EL 560.02

N

0 150 300 600
SCALE: IN FEET

FIG. 4

POTENTIOMETRIC SURFACE MAP
APRIL 20, 2025

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2025
PROJECT ID: 240338/0014
SHEET NUMBER:

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

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LEGEND

- 550 — EXISTING GROUND CONTOURS
- 540 — GROUNDWATER CONTOURS
- TEMPORARY ASSESSMENT WELL
- PIEZOMETER
- PART 257 GROUNDWATER MONITORING WELL
- PART 845 GROUNDWATER MONITORING WELL
- SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.

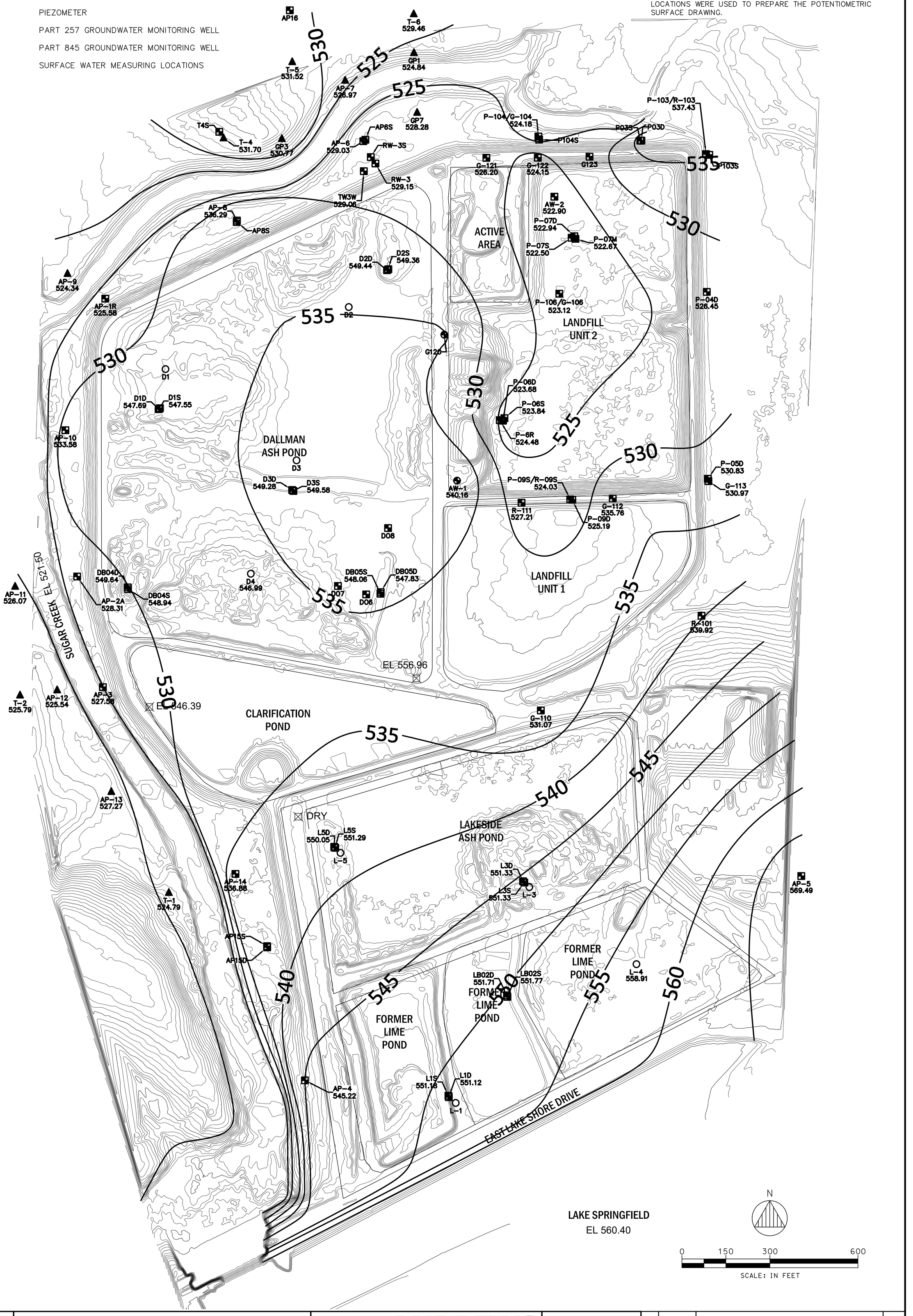


FIG. 5

POTENTIOMETRIC SURFACE MAP
MAY 29, 2025

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

SHEET NUMBER:

PROJECT ID: 240338/0014

DATE: AUGUST 2025

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

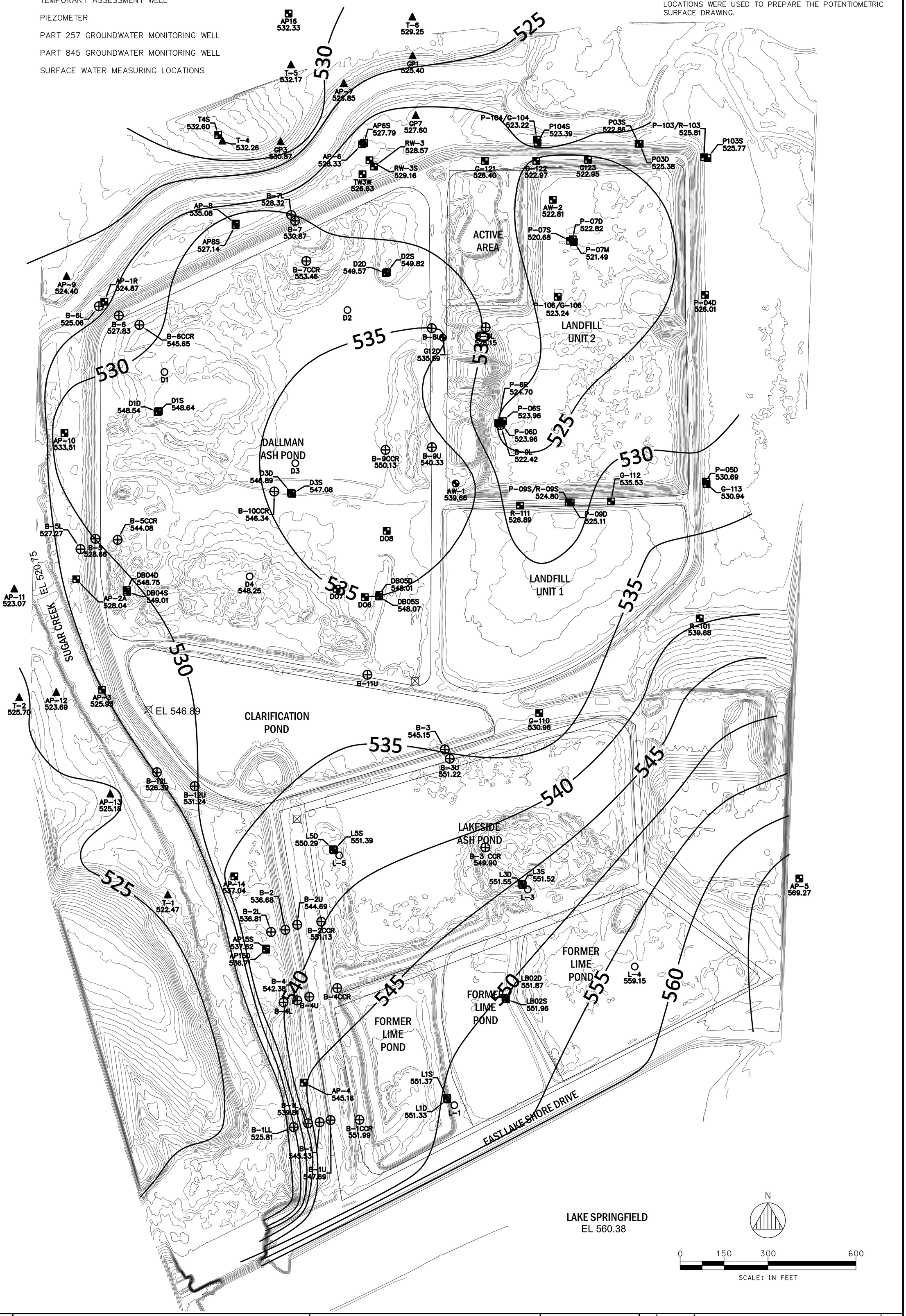
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LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL
- ○ PIEZOMETER
- ◔ PART 257 GROUNDWATER MONITORING WELL
- ▪ PART 845 GROUNDWATER MONITORING WELL
- ⊠ SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.



LAKE SPRINGFIELD
EL 560.38

N

0 150 300 600
SCALE: IN FEET

FIG. 6

POTENTIOMETRIC SURFACE MAP
JUNE 25, 2025

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2025
PROJECT ID: 240338/0014
SHEET NUMBER:

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
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PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

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NO.	DATE	REVISION DESCRIPTION	BY

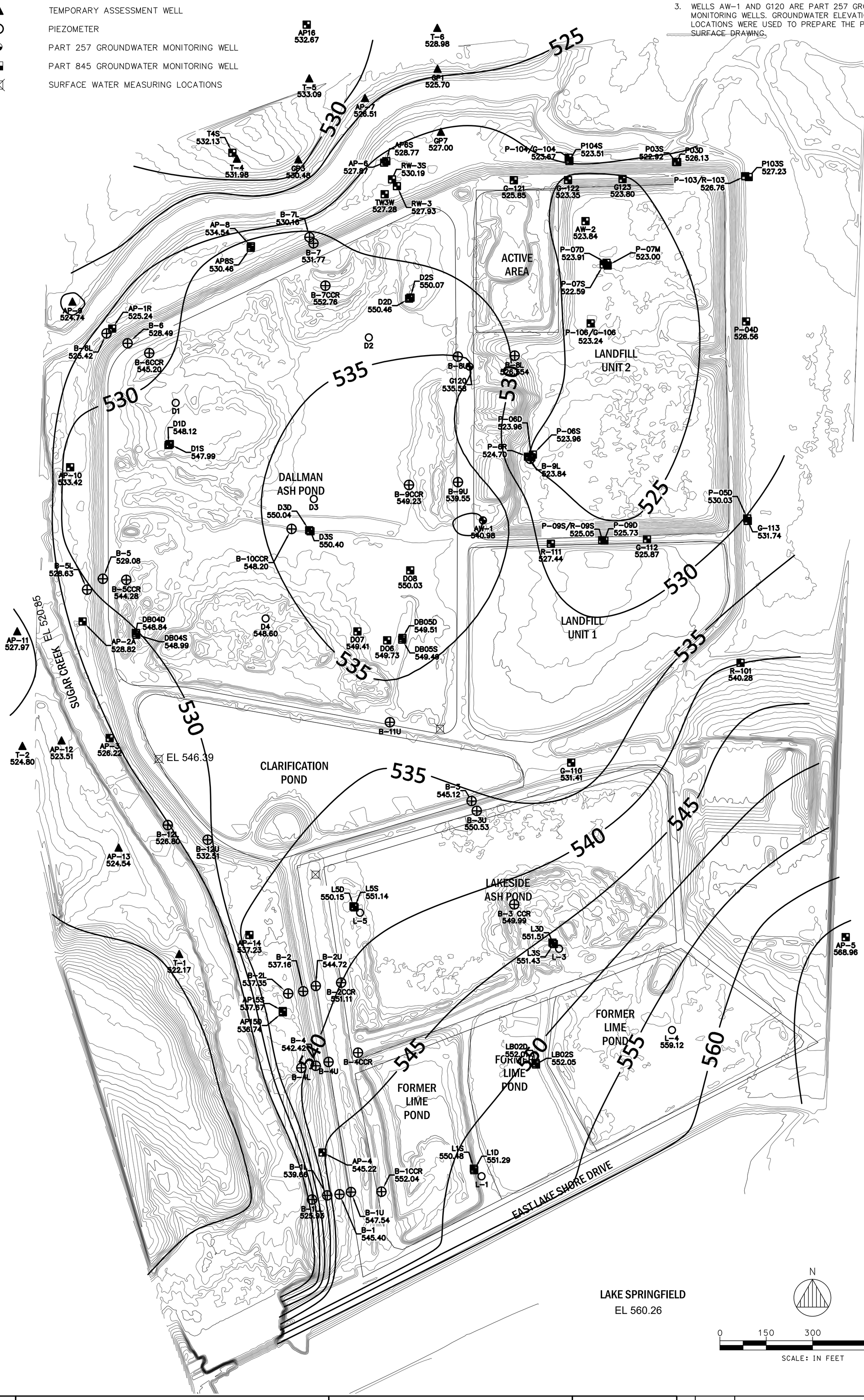
© 2025 Andrews Engineering, Inc.

LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL
- ○ PIEZOMETER
- ◔ PART 257 GROUNDWATER MONITORING WELL
- ■ PART 845 GROUNDWATER MONITORING WELL
- ⊠ SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.



LAKE SPRINGFIELD
EL 560.26

N

0 150 300 600
SCALE: IN FEET

FIG. 7

POTENTIOMETRIC SURFACE MAP
JULY 21, 2025

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2025
PROJECT ID: 240338/0014
SHEET NUMBER:

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

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LEGEND

- 550 — EXISTING GROUND CONTOURS
- 540 — GROUNDWATER CONTOURS
- TEMPORARY ASSESSMENT WELL
- PIEZOMETER
- PART 257 GROUNDWATER MONITORING WELL
- PART 845 GROUNDWATER MONITORING WELL
- SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.

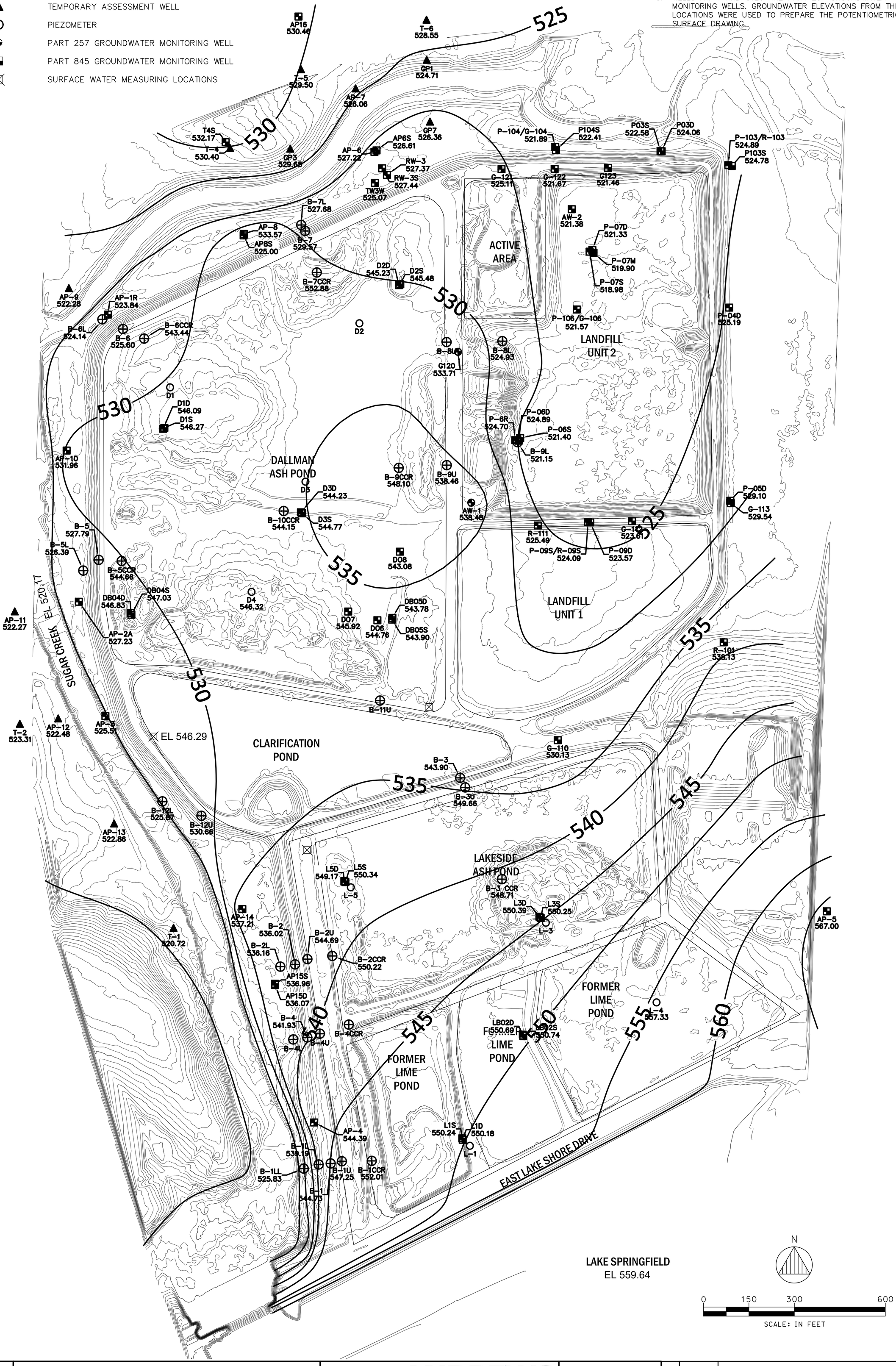


FIG. 8

SHEET NUMBER:

PROJECT ID: 240338/0014

DATE: AUGUST 2025

POTENTIOMETRIC SURFACE MAP
AUGUST 21, 2025

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

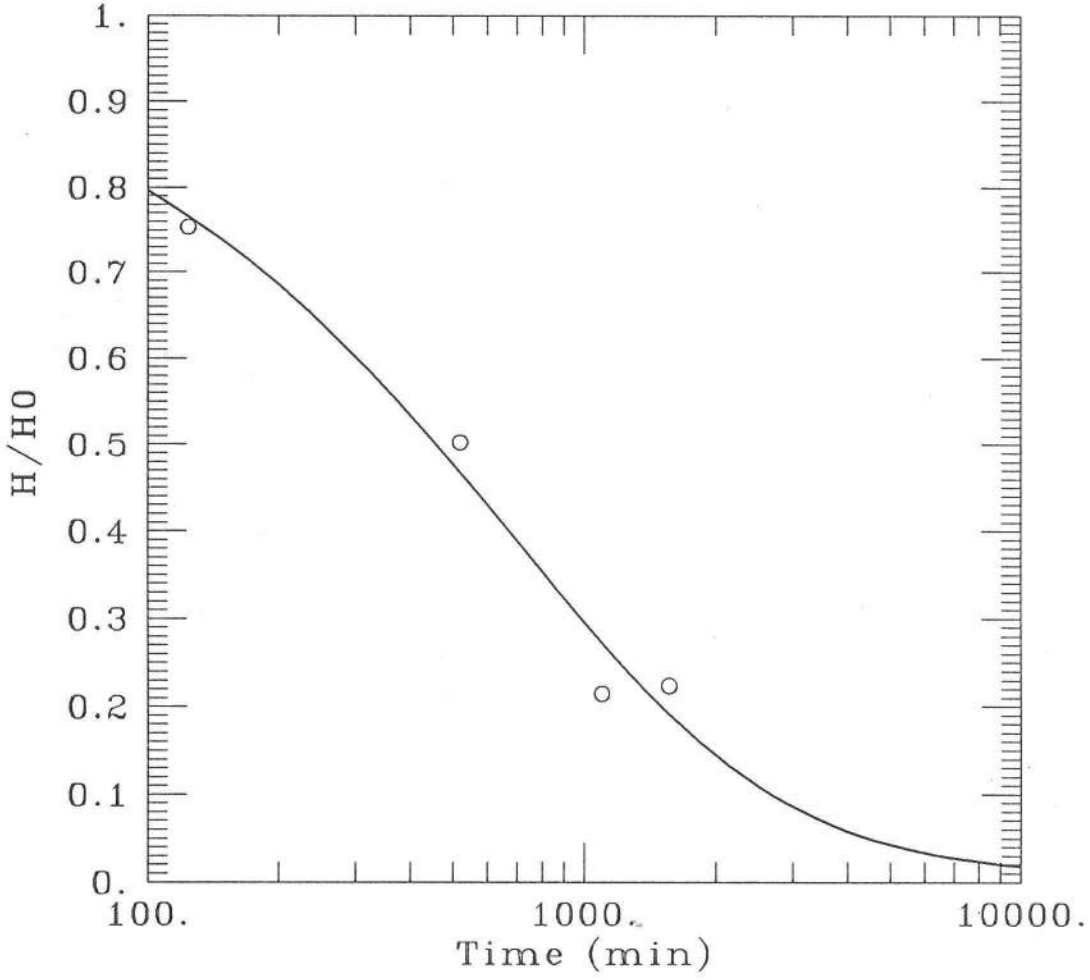
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APPENDIX C:

Slug Test Results and Boring Logs for P-6R/P-7R

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-6R DRAWDOWN



DATA SET:
P-6R-D.AQT
06/18/93

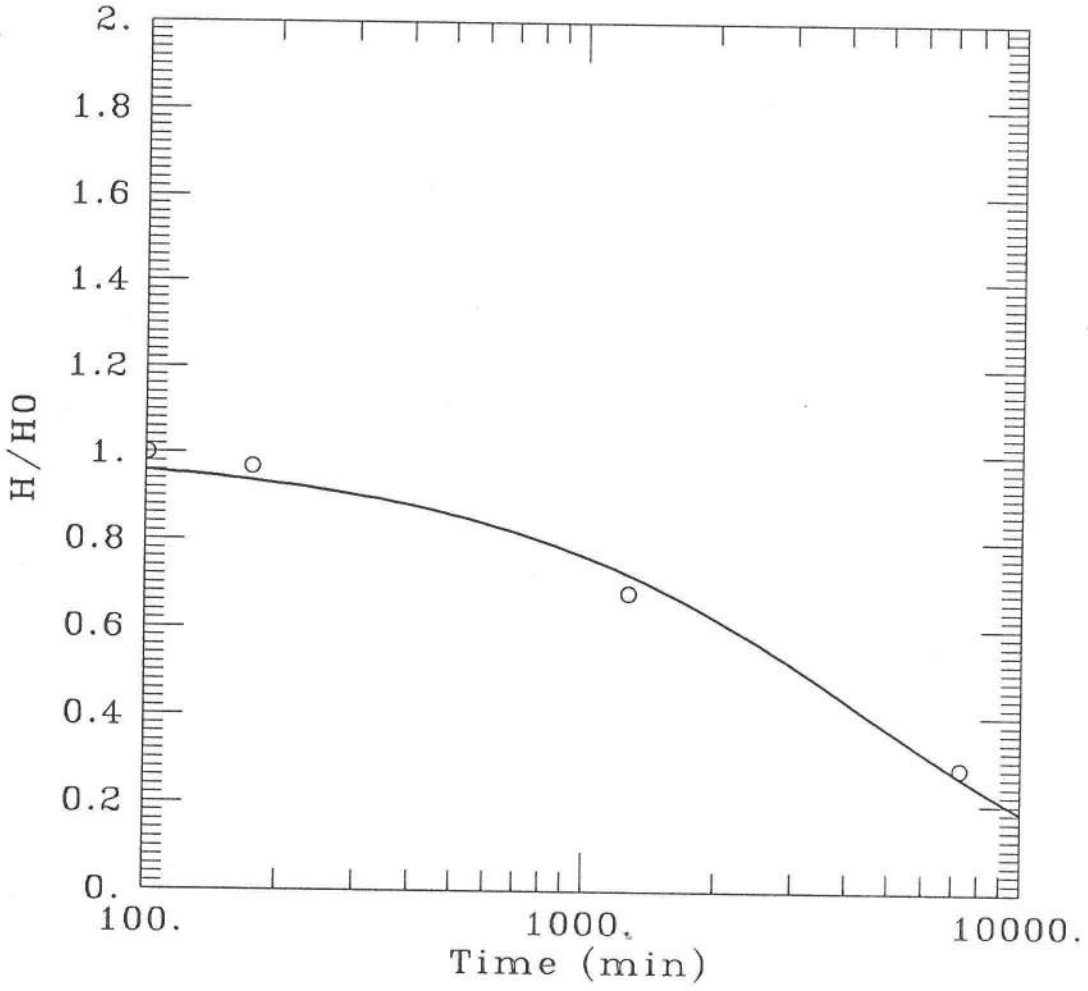
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
5/11/93

ESTIMATED PARAMETERS:
T = 1.2595E-05 ft^2/min
S = 0.0006438

TEST DATA:
H0 = 2.19 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-7R DRAWDOWN



DATA SET:
P-7R-D.AQT
03/22/93

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Cooper et al.

TEST DATE:
10/05/92

ESTIMATED PARAMETERS:
T = 2.7658E-06 ft^2/min
S = 6.6124E-05

TEST DATA:
H0 = 2.56 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.

BORING NUMBER **P-6D** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,717.0 E 2,186.8**

LOGGED BY **KRR**
GROUND ELEVATION **524.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
524.8	0.0		Brown silty clay, trace to little fine sand, soft, medium plasticity, wet CL	AU-1 0.0-2.0		22.2	
			Mottled at 2.0'	SS-2 2.0-4.0 18"R	2 1 2 3	✳ 21.2	
				SS-3 4.0-6.0 20"R	1 1 2 2	✳ 21.7	
518.3	6.5			SS-4AB 6.0-8.0 18"R	1 2 2 2	✳ 22.0	
517.3	7.5		Brown, clayey, fine sand, little to some silt, loose, poorly graded, saturated SC			25.4	Water level at 6.0' during drilling.
			Brown mottled silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-5 8.0-10.0 10"R	1 1 2 2	✳ 21.7	Wood fragments in SS-5.
514.8	10.0		Gray silty clay, trace fine sand, soft to medium stiff, medium plasticity, wet CL	SS-6 10.0-12.0 20"R	3 1 1 1	✳ 29.8	
				SS-7 12.0-14.0 20"R	2 2 2 2	✳ 28.3	
				SS-8 14.0-16.0 22"R	1 2 4 3	✳ 24.1	
				SS-9 16.0-18.0 24"R	2 2 2 2	✳ 24.7	
				3T-10 18.0-20.0 24"R		✳	
504.8	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/12/92** ENDED **8/12/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **6.0'** during drilling
▼ **1.0'** after drilling

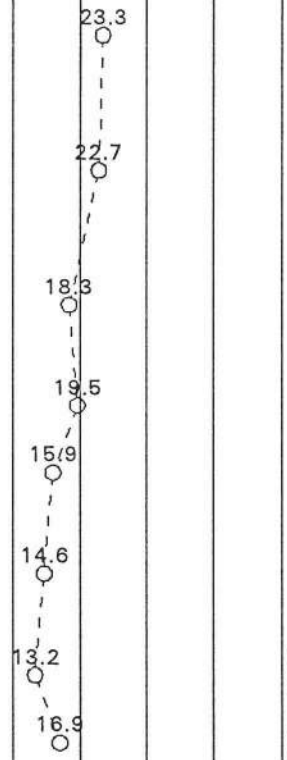
PATRICK ENGINEERING INC.

BORING NUMBER P-6D SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,717.0 E 2,186.8

LOGGED BY KRR
GROUND ELEVATION 524.8

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
504.8	20.0		Gray silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-11 20.0-22.0 24"R	1 2 2 1
				SS-12 22.0-24.0 24"R	WOH 1 2 1
501.8	23.0		Little fine sand in SS-12		
			Gray clayey silt, trace fine sand, loose, wet to saturated CL-ML/ML	SS-13 24.0-26.0 24"R	2 3 4 4
				SS-14AB 26.0-28.0 24"R	4 4 7 10
497.3	27.5				
496.8	28.0		Gray fine sand, trace coarse to medium sand, some silt, medium dense, poorly graded, saturated SM	SS-15 28.0-30.0 24"R	7 7 18 9
			Gray coarse to fine sand, trace coarse to fine gravel, some silt, medium dense, well graded, saturated SM	SS-16AB 30.0-32.0 22"R	13 16 17 100 +
493.3	31.5				
492.8	32.0		Gray shale		
			End of Boring at 32.0'		

Water Content: PL ☐ - - - ○ - - - △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)



NOTES & TEST RESULTS

Water level at 1.0' immediately after drilling.
Piezometer was installed immediatley after completion of drilling.
Refer to As-Built Diagram P-6D for more information.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/12/92** ENDED **8/12/92**

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ **6.0'** during drilling.
▼ **1.0'** after drilling.

PATRICK ENGINEERING INC.

BORING NUMBER **P-6R** SHEET **1** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,719.5 E 2,175.7**

LOGGED BY **KRR**
GROUND ELEVATION **524.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
524.8	0.0		Drilled to top of bedrock at 32.5 feet without sampling. Refer to Boring Log P-6D for soil conditions above top of bedrock.				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/5/92** ENDED **8/6/92**

REMARKS

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-6R** SHEET **2** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,719.5 E 2,175.7**

LOGGED BY **KRR**
GROUND ELEVATION **524.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
504.8	20.0		Drilled to top of bedrock at 32.5 feet without sampling. Refer to Boring Log P-6D for soil conditions above top of bedrock.				Ceased drilling at 32.5' on 8/5/92. Switched to PQ coring and cored on 8/6/92.
492.3	32.5		Gray shale, massive, excellent	PQ-1 32.5-38.5 72"R			RQD = 100%
				PQ-2 38.5-42.5 48"R			RQD = 100%

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/5/92** ENDED **8/6/92**

REMARKS

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER **P-6R** SHEET **3** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,719.5 E 2,175.7**

LOGGED BY **KRR**
GROUND ELEVATION **524.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
484.8	40.0		Gray shale, massive, excellent				
482.3	42.5		End of Boring at 42.5'.				Piezometer P-6R was installed immediately after completion of drilling. Refer to as-built diagram P-6R for more details.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/5/92** ENDED **8/6/92**

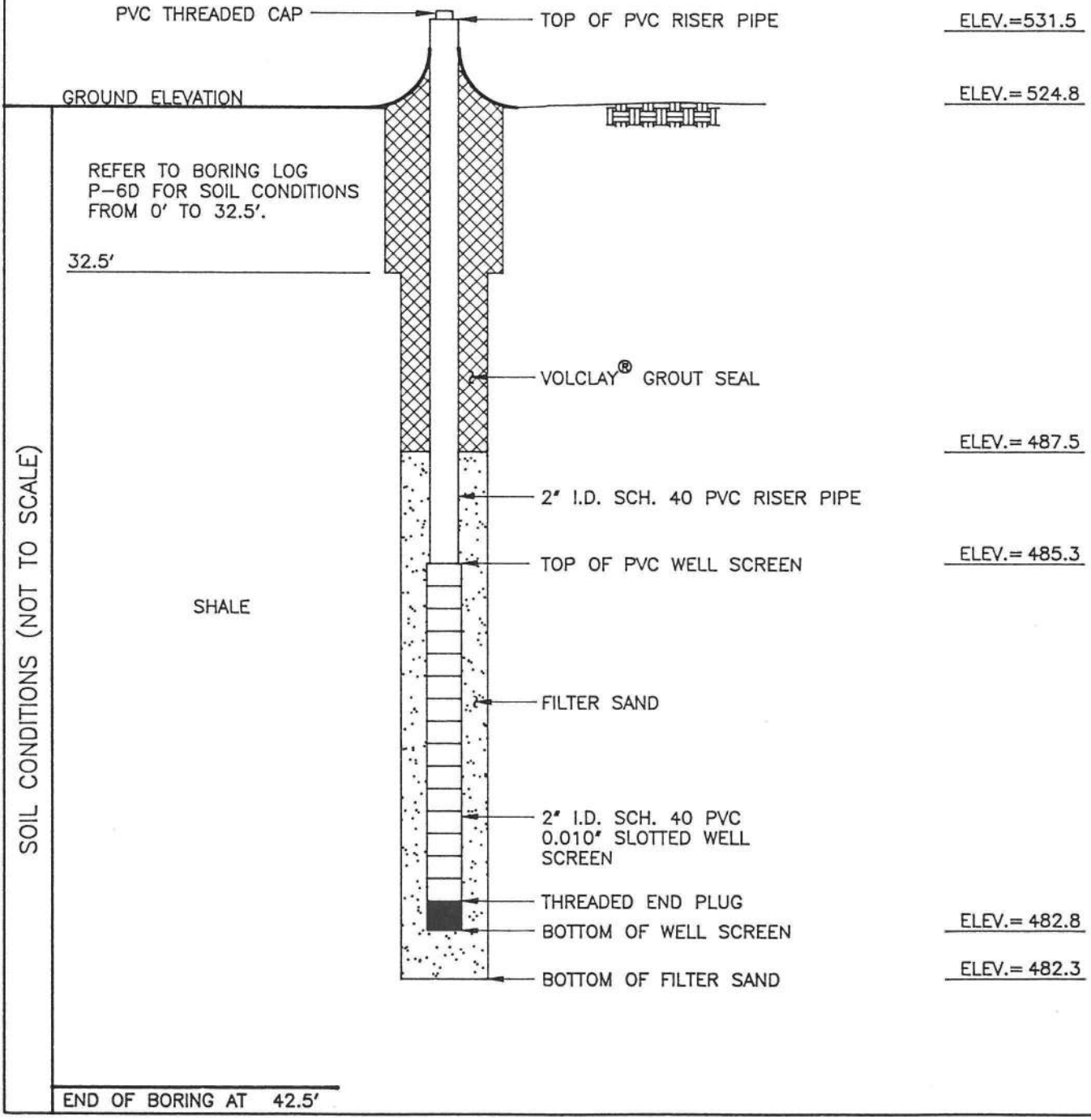
REMARKS

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-6R PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER KRISHNA REDDY
DRILLER KEVIN SHAMWAY

BORING NO. P-6R
LOCATION N 4719.5
E 2175.7
INSTALLATION DATE 8/6/92
WEATHER SUNNY, 70'S



PATRICK ENGINEERING INC.

BORING NUMBER **P-7D** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION **N 5,342.8 E 2,432.5**

LOGGED BY **KRR**
GROUND ELEVATION **526.5**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
526.5	0.0		Brown silty clay, trace fine sand, stiff to very stiff, medium plasticity, wet CL	AU-1 0.0-2.0		19.2 ○	
			Mottled from 2.0'.	SS-2 2.0-4.0 24"R	3 3 4 5	✳ 17.6 ○	SS-3: LL=33 PL=19 PI=14
				SS-3 4.0-6.0 24"R	2 3 4 4	✳ 21.7 ○	
				SS-4 6.0-8.0 24"R	5 5 5 6	✳ 25.3 ○	SS-4: CEC = 16.5 meq/100g
				3T-5 8.0-10.0 24"R		✳ 22.6 ○	3T-5: Dry dens=101pcf k=2.0 E-07 cm/s
				SS-6AB 10.0-12.0 24"R	2 1 2 2	✳ 24.8 ○	SS-6B: Gravel = 0% Sand = 52% Silt or Clay = 48%
515.0	11.5						
514.5	12.0		Brown clayey fine sand, little silt, loose, poorly graded, moist SC				
				SS-7 12.0-14.0 24"R	2 2 3 3	✳ 23.1 ○ 28.9 ○	
			Gray silty clay, trace fine sand, soft to stiff, low to medium plasticity, wet CL	SS-8 14.0-16.0 24"R	WOH 1 1 1	✳ 26.9 □-○-△	SS-8: LL = 29 PL = 22 PI = 7
				SS-9 16.0-18.0 24"R	2 2 2 2	✳ 25.1 ○	
				SS-10 18.0-20.0 24"R	WOH 1 1 1	✳ 23.6 ○	
506.5	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/30/92** ENDED **7/30/92**

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ **20.0'** during drilling.
▽
▼

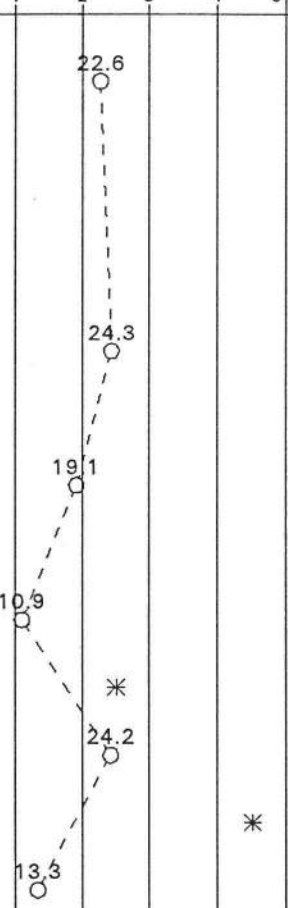
PATRICK ENGINEERING INC.

BORING NUMBER **P-7D** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION **N 5,342.8 E 2,432.5**

LOGGED BY **KRR**
GROUND ELEVATION **526.5**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
506.5	20.0		Gray silty clay, trace fine sand, soft, low to medium plasticity, wet CL	SS-11 20.0-22.0 24"R	WOH 1 1 1
				3T-12 22.0-24.0 20"R	
502.5	24.0		Gray clayey silt, some fine sand, loose, poorly graded, saturated CL-ML	SS-13 24.0-26.0 24"R	1 2 1 3
500.5	26.0		Gray fine sand, some silt, very loose, poorly graded, saturated SM	SS-14 26.0-28.0 18"R	1 1 1 1
497.5	29.0		Gray coarse to fine sand, some coarse to fine gravel, little silt, loose, well graded, saturated SW-SM/SM	SS-15 28.0-30.0 20"R	1 1 1 3
495.5	31.0		Gray silty clay to clay, trace fine sand, very stiff to hard, medium to high plasticity, moist CL/CH	SS-16 30.0-32.0 20"R	2 2 4 11
494.0	32.5			SS-17 32.0-34.0 15"R	28 115 200+ /3"
493.3	33.2		Gray shale		
			End of Boring at 33.2'.		

Water Content: PL ☐ - - - ○ - - - △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)



NOTES & TEST RESULTS

Water level at 20.0' during drilling.

SS-13:
Gravel = 0%
Sand = 34%
Silt or Clay = 66%

SS-16:
Gravel = 27%
Sand = 59%
Silt or clay = 14%

Piezometer was installed immediately after completion of drilling.
Refer to as-built diagram P-7D for more details.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/30/92** ENDED **7/30/92**

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ **20.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-7M** SHEET **1** OF **1**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,337.0 E 2,432.8**

LOGGED BY **KRR**
GROUND ELEVATION **525.9**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
525.9	0.0		Drilled to 16.0' without sampling. Refer to Boring Log P-6D for soil conditions from 0' to 16'.				Soil conditions from 0' to 16' were consistent with soil conditions in P-6D based on soil cuttings.
							3T-2: Dry dens. = 101 pcf k = 1.5 E-07 cm/s
509.9	16.0		Gray silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-1 16.0-18.0 24"R	1 1 1 2	✳	Piezometer P-7M was installed immediately after completion of drilling. Refer to as-built diagram P-7M for more details.
				3T-2 18.0-20.0 20"R		✳	
505.9	20.0		End of Boring at 20.0'.				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/30/92** ENDED **7/30/92**

REMARKS

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER **P-7R** SHEET **1** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,326.9 E 2,424.5**

LOGGED BY **KRR**
GROUND ELEVATION **525.4**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
525.4	0.0		Drilled to 34.0' (auger refusal) without sampling. Refer to Boring Log P-7D for soil conditions from 0' to 34'.				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/31/92** ENDED **7/31/92**

REMARKS

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-7R** SHEET **2** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,326.9 E 2,424.5**

LOGGED BY **KRR**
GROUND ELEVATION **525.4**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
505.4	20.0		Drilled to 34.0' (auger refusal) without sampling. Refer to Boring Log P-7D for soil conditions from 0' to 34'.				Soil conditions are consistent with soil conditions encountered at P-7D based on soil cuttings.
491.4	34.0		Gray shale, massive, strongly cemented, excellent	PQ-1 34.0-39.0 60"R			Changed to PQ coring from 34.0'. RQD = 100%
				PQ-2 39.0-44.0			

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/31/92** ENDED **7/31/92**

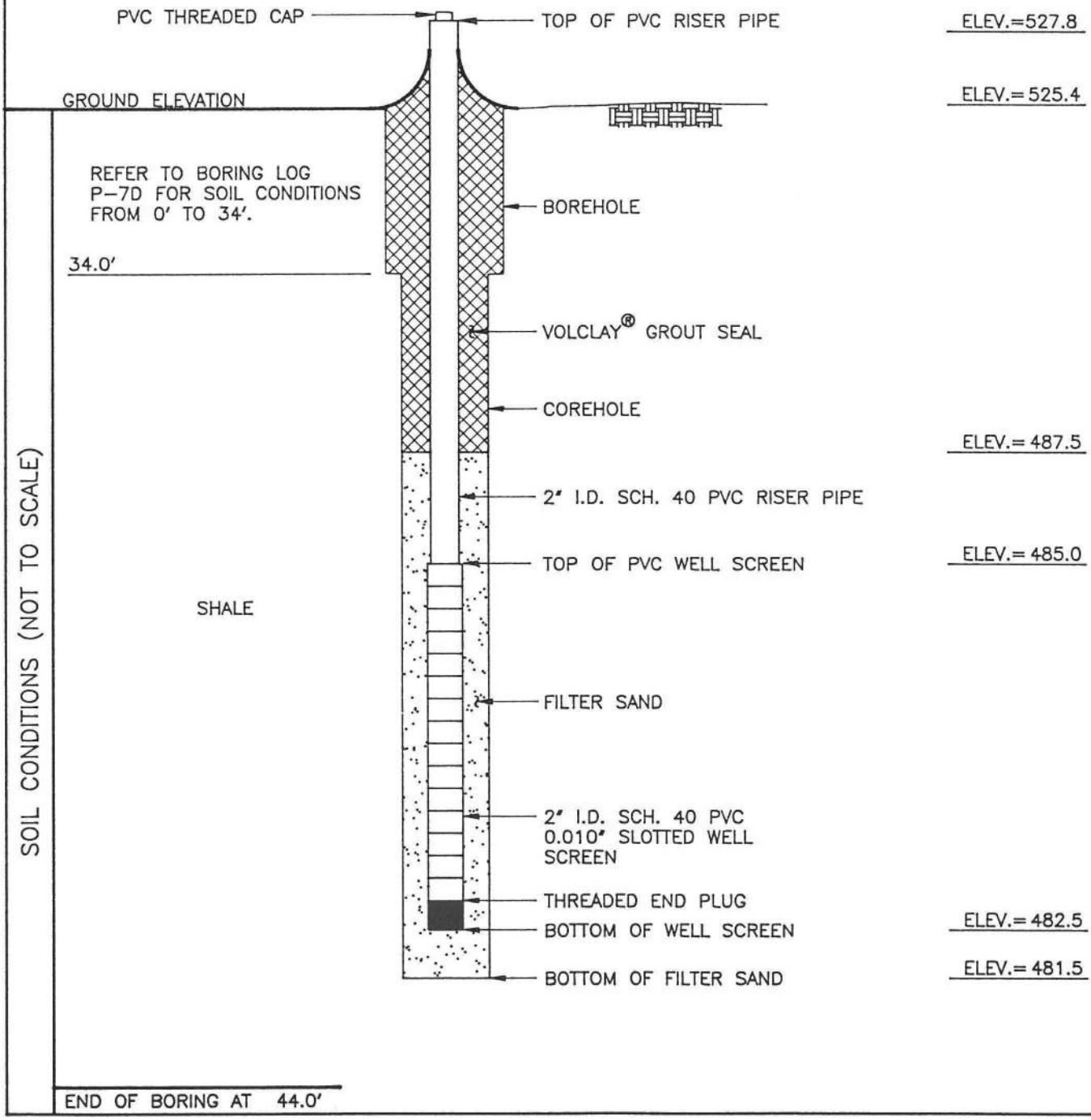
REMARKS

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-7R PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER KRISHNA REDDY
DRILLER KEVIN SHAMWAY

BORING NO. P-7R
LOCATION N 5326.9
E 2424.5
INSTALLATION DATE 7/31/92
WEATHER CLOUDY, DRIZZLE, 70'S



APPENDIX D:
Analytical Summary

City Water, Light and Power
CWLP CCR Surface Impoundments
2022 - 2024 Groundwater Analytical Summary Data

Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
Appendix III																		
AP-1	Boron, total	mg/L	0.14973			**0.14973**	22.3	23.1	22.1	21.4	23.2	21.2	22.5	21.7	23.5	22.7	22.9	23.6
AP-2	Boron, total	mg/L	0.14973			**0.14973**	4.68	4.25	4.32	4.08	3.94	3.7	3.73	3.23	3.38	3.43	3.1	3.52
AP-3	Boron, total	mg/L	0.14973			**0.14973**	15.8	14.7	14.8	14.6	14.5	14.3	14	15.2	14.8	14.5	14.6	14.9
AP-4	Boron, total	mg/L	0.14973			**0.14973**	0.0954	0.0968	0.0927	0.102	0.0918	0.101	0.0845	0.0841	0.0871	0.0834	0.0825	0.082
AP-5	Boron, total	mg/L	0.14973			**0.14973**	< 0.02	0.0341	< 0.02	0.045	0.0353	0.0311	0.0323	0.0455	0.0434	0.0269	0.0339	0.0326
AP-6	Boron, total	mg/L	0.14973			**0.14973**	0.247	0.275	0.0716	0.166	0.13	0.174	0.0753	0.214	0.171	0.238	0.25	0.248
AP-7	Boron, total	mg/L	0.14973			**0.14973**	0.381	0.339	0.204	0.26	0.18	0.391	0.141	0.331	0.173	0.0978	0.244	0.332
AP-8	Boron, total	mg/L	0.14973			**0.14973**	0.125	0.0877	0.0839	0.0927	0.0849	0.11	0.0932	0.0896	0.0866	0.0877	0.0855	0.084
AP-9	Boron, total	mg/L	0.14973			**0.14973**	0.0491	0.122	0.092	0.11	0.0973	0.102	0.0807	0.0956	0.0932	0.0988	0.0979	0.0995
AP-10	Boron, total	mg/L	0.14973			**0.14973**		3.58	3.52	3.35	3.32	3.76	3.81	3.6	3.71	3.92	3.9	3.95
AP-11	Boron, total	mg/L	0.14973			**0.14973**	0.276	0.271	0.0533	0.261	0.282	0.241	0.24	0.256	0.232	0.0555	0.211	0.261
AP-12	Boron, total	mg/L	0.14973			**0.14973**	0.0244	< 0.02	0.0213	0.0294	0.0277	< 0.02	< 0.02	0.038	0.021	< 0.02	0.0241	< 0.02
AP-13	Boron, total	mg/L	0.14973			**0.14973**	0.0403	0.0375	0.268	0.044	0.0485	0.0328	0.0235	0.0386	0.0356	0.0343	0.0357	< 0.02
AP-14	Boron, total	mg/L	0.14973			**0.14973**	23.1	23.3	21.8	21.3	21.3	23	22.6	22.1	21.6	22.3	20	21
AW-1	Boron, total	mg/L	0.14973			**0.14973**		8.24	7.78			8.39		8.66	8.24	9.44	9.19	8.91
RW-3	Boron, total	mg/L	0.14973			**0.14973**	0.179	0.196	0.177	0.192	0.175	0.186	0.0595	0.117	0.116	0.154	0.122	0.137
R111	Boron, total	mg/L	0.14973			**0.14973**	4.19		0.104			4.64	3.89	0.102	< 0.02	0.901	3.5	4.19
G120	Boron, total	mg/L	0.14973			**0.14973**		6.19	5.85			6.92		7.15	7.12	7.43	7.71	7.5
T-1	Boron, total	mg/L	0.14973			**0.14973**										0.227	0.141	0.15
T-2	Boron, total	mg/L	0.14973			**0.14973**										0.189	0.0718	0.0507
T-4	Boron, total	mg/L	0.14973			**0.14973**										0.0304	0.0537	0.0565
T-5	Boron, total	mg/L	0.14973			**0.14973**										0.0639	0.0843	0.0791
T-6	Boron, total	mg/L	0.14973			**0.14973**										0.201	0.214	0.21
AP-1	Calcium, total	mg/L	181.6			**181.6**	245	243	239	242	230	242	285	229	250	248	244	237
AP-2	Calcium, total	mg/L	181.6			**181.6**	265	236	241	248	217	210	244	204	210	194	206	222
AP-3	Calcium, total	mg/L	181.6			**181.6**	150	152	157	160	161	168	189	181	177	176	175	185
AP-4	Calcium, total	mg/L	181.6			**181.6**	123	122	116	121	115	125	132	118	119	123	118	< 0.1
AP-5	Calcium, total	mg/L	181.6			**181.6**	87.2	74.3	102	80.2	78.3	80.4	96.3	90.7	96.7	94.1	96.3	92.6
AP-6	Calcium, total	mg/L	181.6			**181.6**	69.2	66.2	43	57.8	52.4	60.9	49	65.8	61.4	65.8	65.6	66
AP-7	Calcium, total	mg/L	181.6			**181.6**	62.9	64.9	46.4	44.8	49.3	53.6	49.6	50.6	55.6	52.3	59.5	61.9
AP-8	Calcium, total	mg/L	181.6			**181.6**	100	96.5	96.1	100	95.1	99.1	107	101	99.3	99.4	89.5	98.4
AP-9	Calcium, total	mg/L	181.6			**181.6**	46.5	112	102	104	105	108	86.1	97.8	97.9	101	103	104
AP-10	Calcium, total	mg/L	181.6			**181.6**		141	140	142	139	144	138	138	141	141	133	140
AP-11	Calcium, total	mg/L	181.6			**181.6**	127	149	102	141	169	145	118	134	150	217	126	124
AP-12	Calcium, total	mg/L	181.6			**181.6**	201	287	266	260	265	269	271	268	228	240	258	203
AP-13	Calcium, total	mg/L	181.6			**181.6**	106	105	138	112	107	105	106	122	101	109	106	103
AP-14	Calcium, total	mg/L	181.6			**181.6**	225	215	217	236	209	233	235	278	263	245	237	253
AW-1	Calcium, total	mg/L	181.6			**181.6**		195				191		197	203	200	186	193
RW-3	Calcium, total	mg/L	181.6			**181.6**	72.7	75.6	72.3	72.7	67.8	70.5	52.8	58.7	63.4	65.6	63.2	67.2
R111	Calcium, total	mg/L	181.6			**181.6**	169		40.2			181		15.1	11	93.5	163	169
G120	Calcium, total	mg/L	181.6			**181.6**		263				274		257	265	259	240	263
T-1	Calcium, total	mg/L	181.6			**181.6**										105	183	172
T-2	Calcium, total	mg/L	181.6			**181.6**										150	218	211
T-4	Calcium, total	mg/L	181.6			**181.6**										62.7	77.3	96.8
T-5	Calcium, total	mg/L	181.6			**181.6**										65.4	64.6	70.3
T-6	Calcium, total	mg/L	181.6			**181.6**										91.3	84.3	91.4

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

City Water, Light and Power
CWLP CCR Surface Impoundments
2022 - 2024 Groundwater Analytical Summary Data

Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
AP-1	Chloride, total	mg/L	12.3			**12.3**	55	59	44	61	58	60	36	53	54	29	59	52.1
AP-2	Chloride, total	mg/L	12.3			**12.3**	36	35	34	34	36	37	54	40	39	36	39	35.1
AP-3	Chloride, total	mg/L	12.3			**12.3**	42	42	47	55	60	59	51	57	54	53	55.9	59.5
AP-4	Chloride, total	mg/L	12.3			**12.3**	12	16	13	14	14	14	13	14	13	13	15	12.3
AP-5	Chloride, total	mg/L	12.3			**12.3**	< 4	2	6	< 4	3	4	4	5	8	8	8	7.59
AP-6	Chloride, total	mg/L	12.3			**12.3**	35	38	25	31	27	31	28	33	30	33	37	34.5
AP-7	Chloride, total	mg/L	12.3			**12.3**	64	66	36	58	45	70	39	60	42	43	50	62.1
AP-8	Chloride, total	mg/L	12.3			**12.3**	26	28	27	26	26	26	25	25	24	26	35	23.2
AP-9	Chloride, total	mg/L	12.3			**12.3**	24	64	30	27	36	60	28	26	25	39	29	23.6
AP-10	Chloride, total	mg/L	12.3			**12.3**		29	28	28	27	28	28	27	27	27	30	25.7
AP-11	Chloride, total	mg/L	12.3			**12.3**	83	119	29	105	140	123	79	90	122	429	90	91
AP-12	Chloride, total	mg/L	12.3			**12.3**	113	162	143	147	140	142	139	124	115	121	136	120
AP-13	Chloride, total	mg/L	12.3			**12.3**	35	27	103	26	29	26	26	27	27	26	27	25.8
AP-14	Chloride, total	mg/L	12.3			**12.3**	49	52	59	65	59	71	73	89	82	83	92	94
AW-1	Chloride, total	mg/L	12.3			**12.3**		40				41		40	40	40	41	37.3
RW-3	Chloride, total	mg/L	12.3			**12.3**	29	31	31	30	29	32	28	31	27	28	29	25.1
R111	Chloride, total	mg/L	12.3			**12.3**	202		25			219		< 4	6	22	185	202
G120	Chloride, total	mg/L	12.3			**12.3**		40				40		40	39	39	41	37.4
T-1	Chloride, total	mg/L	12.3			**12.3**										49	259	233
T-2	Chloride, total	mg/L	12.3			**12.3**										173	447	509
T-4	Chloride, total	mg/L	12.3			**12.3**										< 4	< 4	< 5
T-5	Chloride, total	mg/L	12.3			**12.3**										< 4	< 4	< 5
T-6	Chloride, total	mg/L	12.3			**12.3**										21	24	19.4
AP-1	Fluoride, total	mg/L	0.5	4		**4**	0.2	0.21	0.2	0.18	0.2	0.27	0.24	0.26	0.18	0.19	0.2	< 0.5
AP-2	Fluoride, total	mg/L	0.5	4		**4**	0.24	0.24	0.24	0.22	0.24	0.22	0.2	0.27	0.21	0.23	0.25	< 0.5
AP-3	Fluoride, total	mg/L	0.5	4		**4**	0.21	0.24	0.23	0.21	0.22	0.22	0.21	0.25	0.17	0.19	< 0.5	< 0.5
AP-4	Fluoride, total	mg/L	0.5	4		**4**	0.14	0.15	0.15	0.13	0.14	0.14	0.14	0.16	0.16	0.13	0.15	< 0.5
AP-5	Fluoride, total	mg/L	0.5	4		**4**	0.33	0.38	0.29	0.31	0.34	0.32	0.31	0.37	0.28	0.29	0.32	< 0.5
AP-6	Fluoride, total	mg/L	0.5	4		**4**	0.49	0.55	0.31	0.4	0.38	0.51	0.26	0.5	0.37	0.48	0.56	< 0.5
AP-7	Fluoride, total	mg/L	0.5	4		**4**	0.55	0.56	0.37	0.39	0.36	0.53	0.34	0.53	0.44	0.38	0.46	< 0.5
AP-8	Fluoride, total	mg/L	0.5	4		**4**	0.29	0.31	0.3	0.27	0.3	0.33	0.29	0.31	0.26	0.28	0.33	< 0.5
AP-9	Fluoride, total	mg/L	0.5	4		**4**	0.25	0.23	0.25	0.22	0.22	0.2	0.23	0.29	0.26	0.21	0.26	< 0.5
AP-10	Fluoride, total	mg/L	0.5	4		**4**		0.35	0.34	0.3	0.3	0.36	0.32	0.35	0.29	0.28	0.32	< 0.5
AP-11	Fluoride, total	mg/L	0.5	4		**4**	0.21	0.22	0.22	0.2	0.18	0.2	0.21	0.65	0.22	0.22	0.21	< 0.5
AP-12	Fluoride, total	mg/L	0.5	4		**4**	0.17	0.19	0.18	0.17	0.17	0.18	0.18	0.2	0.19	0.16	0.19	< 0.5
AP-13	Fluoride, total	mg/L	0.5	4		**4**	0.23	0.24	0.22	0.21	0.2	0.23	0.22	0.24	0.24	0.2	0.22	< 0.5
AP-14	Fluoride, total	mg/L	0.5	4		**4**	0.28	0.3	0.29	0.26	0.25	0.28	0.27	0.29	0.3	0.24	0.28	< 0.5
AW-1	Fluoride, total	mg/L	0.5	4		**4**		< 0.1				< 0.1		< 0.1	< 0.1	< 0.1	< 0.1	< 0.5
RW-3	Fluoride, total	mg/L	0.5	4		**4**	0.47	0.49	0.48	0.43	0.46	0.52	0.27	0.44	0.37	0.4	0.43	< 0.5
R111	Fluoride, total	mg/L	0.5	4		**4**	< 0.5		0.11			0.16		< 0.1	< 0.1	< 0.1	0.14	< 0.5
G120	Fluoride, total	mg/L	0.5	4		**4**		0.18				0.19		0.18	0.17	0.16	0.16	< 0.5
T-1	Fluoride, total	mg/L	0.5	4		**4**										0.2	0.22	< 0.5
T-2	Fluoride, total	mg/L	0.5	4		**4**										0.24	0.23	< 0.5
T-4	Fluoride, total	mg/L	0.5	4		**4**										0.26	0.32	< 0.5
T-5	Fluoride, total	mg/L	0.5	4		**4**										0.18	0.22	< 0.5
T-6	Fluoride, total	mg/L	0.5	4		**4**										0.28	0.32	< 0.5

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

City Water, Light and Power
CWLP CCR Surface Impoundments
2022 - 2024 Groundwater Analytical Summary Data

Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
AP-1	pH	s.u.	6.7 - 7.87			**7.87**	6.57	6.58	6.65	6.68	6.6	6.52	6.51	6.71	6.51	6.31	6.7	6.54
AP-2	pH	s.u.	6.7 - 7.87			**7.87**	6.43	6.43	6.45	6.52	6.46	6.44	6.4	6.57	6.41	6.21	6.58	6.41
AP-3	pH	s.u.	6.7 - 7.87			**7.87**	6.6	6.58	6.6	6.65	6.58	6.64	6.53	6.69	6.55	6.36	6.2	6.48
AP-4	pH	s.u.	6.7 - 7.87			**7.87**	6.92	6.86	6.89	6.95	6.99	6.82	6.86	6.99	6.86	6.83	6.97	6.82
AP-5	pH	s.u.	6.7 - 7.87			**7.87**	7.01	7.17	7.16	7.16	7.06	7.08	7.16	7.17	7.01	6.99	7.07	6.9
AP-6	pH	s.u.	6.7 - 7.87			**7.87**	7.18	7.11	7.2	7.14	7.07	7.02	7.06	7.17	6.97	7.27	7.16	7
AP-7	pH	s.u.	6.7 - 7.87			**7.87**	7.2	6.92	7.12	7.17	7.2	7.11	7.28	7.15	7.15	7.15	7.2	7.17
AP-8	pH	s.u.	6.7 - 7.87			**7.87**	6.91	6.9	6.76	6.99	6.86	6.77	6.75	7.01	6.83	7.03	7.03	6.78
AP-9	pH	s.u.	6.7 - 7.87			**7.87**	7.47	6.63	6.92	6.83	6.85	6.69	6.88	6.81	6.82	6.75	6.89	6.8
AP-10	pH	s.u.	6.7 - 7.87			**7.87**		6.69	6.7	6.76	6.58	6.68	6.57	6.82	6.65	6.54	6.53	6.73
AP-11	pH	s.u.	6.7 - 7.87			**7.87**	6.57	6.51	6.61	6.64	6.42	6.45	6.64	6.6	6.45	6.75	6.44	6.66
AP-12	pH	s.u.	6.7 - 7.87			**7.87**	6.53	6.44	6.56	6.6	6.47	6.43	6.57	6.62	6.53	6.52	6.43	6.59
AP-13	pH	s.u.	6.7 - 7.87			**7.87**	6.71	6.59	6.76	6.79	6.62	6.54	6.66	6.74	6.73	6.7	6.59	6.67
AP-14	pH	s.u.	6.7 - 7.87			**7.87**	6.93	6.95	6.94	7.05	6.69	6.97	6.93	7.06	6.93	6.95	6.76	6.93
AW-1	pH	s.u.	6.7 - 7.87			**7.87**	6.67	6.66	6.64	6.83	6.54	6.47	6.51	6.54	6.55	6.58	6.58	6.56
RW-3	pH	s.u.	6.7 - 7.87			**7.87**	7.27	7.2	7.11	7.21	6.15	7.06	7.13	7.31	7.1	6.7	7.23	7.13
R111	pH	s.u.	6.7 - 7.87			**7.87**	5.96	6.86	6.92	6.81	7.69	6.97	6.91	6.42	6.14	6.01	6.84	5.96
G120	pH	s.u.	6.7 - 7.87			**7.87**	6.77	6.73	6.7	6.7	6.62	6.54	6.79	6.78	6.47	6.65	6.81	6.55
T-1	pH	s.u.	6.7 - 7.87			**7.87**										6.57	6.51	6.57
T-2	pH	s.u.	6.7 - 7.87			**7.87**										6.51	6.37	6.54
T-4	pH	s.u.	6.7 - 7.87			**7.87**										6.31	6.68	6.65
T-5	pH	s.u.	6.7 - 7.87			**7.87**										6.62	6.86	6.82
T-6	pH	s.u.	6.7 - 7.87			**7.87**										6.56	6.77	6.97
AP-1	Sulfate, total	mg/L	55.5			**55.5**	732	791	753	777	56.8	768	443	740	790	805	836	849
AP-2	Sulfate, total	mg/L	55.5			**55.5**	583	532	545	643	485	462	795	380	393	411	417	440
AP-3	Sulfate, total	mg/L	55.5			**55.5**	410	408	384	444	461	483	467	495	512	493	554	558
AP-4	Sulfate, total	mg/L	55.5			**55.5**	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	11	< 10	< 10	< 10
AP-5	Sulfate, total	mg/L	55.5			**55.5**	57	35	66	36	37	44	43	45	50	43	63	59.2
AP-6	Sulfate, total	mg/L	55.5			**55.5**	< 10	< 10	15	13	12	11	22	13	14	< 10	11	< 10
AP-7	Sulfate, total	mg/L	55.5			**55.5**	< 10	< 10	15	13	16	< 10	20	15	17	11	14	< 10
AP-8	Sulfate, total	mg/L	55.5			**55.5**	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	11	< 10
AP-9	Sulfate, total	mg/L	55.5			**55.5**	23	57	27	28	38	64	24	23	23	22	25	17.7
AP-10	Sulfate, total	mg/L	55.5			**55.5**		86	87	96	96	100	100	91	96	100	108	89.4
AP-11	Sulfate, total	mg/L	55.5			**55.5**	67	88	120	89	105	89	65	81	89	134	77	63.4
AP-12	Sulfate, total	mg/L	55.5			**55.5**	402	678	607	691	641	659	632	563	460	499	612	457
AP-13	Sulfate, total	mg/L	55.5			**55.5**	134	135	64	142	133	146	139	151	118	140	135	121
AP-14	Sulfate, total	mg/L	55.5			**55.5**	670	681	639	736	699	707	714	806	679	740	821	909
AW-1	Sulfate, total	mg/L	55.5			**55.5**		344				399		384	369	401	406	388
RW-3	Sulfate, total	mg/L	55.5			**55.5**	10	< 10	< 10	< 10	< 10	< 10	22	16	14	< 10	14	< 10
R111	Sulfate, total	mg/L	55.5			**55.5**	33.3		< 10			38		< 10	< 10	11	32	33.3
G120	Sulfate, total	mg/L	55.5			**55.5**		464				500		555	503	535	534	565
T-1	Sulfate, total	mg/L	55.5			**55.5**										36	236	224
T-2	Sulfate, total	mg/L	55.5			**55.5**										135	181	142
T-4	Sulfate, total	mg/L	55.5			**55.5**										87	100	104
T-5	Sulfate, total	mg/L	55.5			**55.5**										27	40	40.4
T-6	Sulfate, total	mg/L	55.5			**55.5**										< 10	11	< 10

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

City Water, Light and Power
CWLP CCR Surface Impoundments
2022 - 2024 Groundwater Analytical Summary Data

Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
AP-1	Total Dissolved Solids	mg/L	609.21			**609.21**	1490	1550	1550	1540	7.4	1540	1190	1360	1400	1490	1530	1640
AP-2	Total Dissolved Solids	mg/L	609.21			**609.21**	1310	1270	1360	1310	1180	1100	1600	1020	1020	1040	1110	1160
AP-3	Total Dissolved Solids	mg/L	609.21			**609.21**	882	942	1030	920	1040	984	990	1080	935	1040	1170	1160
AP-4	Total Dissolved Solids	mg/L	609.21			**609.21**	496	516	540	495	515	534	560	420	520	500	510	565
AP-5	Total Dissolved Solids	mg/L	609.21			**609.21**	406	354	488	358	374	404	400	396	434	405	422	470
AP-6	Total Dissolved Solids	mg/L	609.21			**609.21**	374	458	246	348	322	380	268	322	380	390	396	445
AP-7	Total Dissolved Solids	mg/L	609.21			**609.21**	440	480	290	348	328	444	300	352	330	340	386	470
AP-8	Total Dissolved Solids	mg/L	609.21			**609.21**	502	552	540	505	555	544	555	430	520	590	526	530
AP-9	Total Dissolved Solids	mg/L	609.21			**609.21**	224	618	565	595	586	638	515	524	530	535	558	740
AP-10	Total Dissolved Solids	mg/L	609.21			**609.21**		752	755	730	778	756	725	732	745	720	796	790
AP-11	Total Dissolved Solids	mg/L	609.21			**609.21**	606	778	550	625	820	726	670	640	665	1780	596	686
AP-12	Total Dissolved Solids	mg/L	609.21			**609.21**	998	1600	1540	1440	1440	1580	1640	1320	1290	1620	1670	1300
AP-13	Total Dissolved Solids	mg/L	609.21			**609.21**	486	530	690	525	495	538	530	465	500	910	560	655
AP-14	Total Dissolved Solids	mg/L	609.21			**609.21**	1240	1340	1390	1380	1280	1330	1480	1440	1510	1480	1610	1840
AW-1	Total Dissolved Solids	mg/L	609.21			**609.21**	1080	1060	1090	1100	1150			1220	1120	1010	1190	1100
RW-3	Total Dissolved Solids	mg/L	609.21			**609.21**	1030	428	428	425	420		290	340	335	345	344	470
R111	Total Dissolved Solids	mg/L	609.21			**609.21**	875	135	805	118	110			68	78	525	832	875
G120	Total Dissolved Solids	mg/L	609.21			**609.21**	1360	1440	1420	1400	1450			1390	1320	1320	1450	1430
T-1	Total Dissolved Solids	mg/L	609.21			**609.21**										700	1020	1060
T-2	Total Dissolved Solids	mg/L	609.21			**609.21**										1060	1430	1580
T-4	Total Dissolved Solids	mg/L	609.21			**609.21**										255	382	695
T-5	Total Dissolved Solids	mg/L	609.21			**609.21**										280	338	382
T-6	Total Dissolved Solids	mg/L	609.21			**609.21**										475	494	595
Appendix IV																		
AP-1	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-2	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0021	< 0.001	< 0.001
AP-3	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-4	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-5	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-6	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0021
AP-7	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0016	< 0.001
AP-8	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-9	Antimony, total	mg/L	0.001	0.006		**0.006**	0.0025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0017	< 0.001
AP-10	Antimony, total	mg/L	0.001	0.006		**0.006**		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0014	< 0.001	< 0.001
AP-11	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-12	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	0.0015	< 0.001	< 0.001	< 0.001	< 0.001	0.0018	< 0.001	< 0.001
AP-13	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-14	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AW-1	Antimony, total	mg/L	0.001	0.006		**0.006**		< 0.001				< 0.001		< 0.001	< 0.001	< 0.001	0.0016	< 0.001
RW-3	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
R111	Antimony, total	mg/L	0.001	0.006		**0.006**	< 0.001		< 0.001			< 0.001		< 0.001	< 0.001	< 0.001	0.0014	< 0.001
G120	Antimony, total	mg/L	0.001	0.006		**0.006**		< 0.001				< 0.001		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
T-1	Antimony, total	mg/L	0.001	0.006		**0.006**										< 0.001	< 0.001	< 0.001
T-2	Antimony, total	mg/L	0.001	0.006		**0.006**										< 0.001	< 0.001	< 0.001
T-4	Antimony, total	mg/L	0.001	0.006		**0.006**										0.0013	< 0.001	< 0.001
T-5	Antimony, total	mg/L	0.001	0.006		**0.006**										< 0.001	< 0.001	< 0.001
T-6	Antimony, total	mg/L	0.001	0.006		**0.006**										< 0.001	< 0.001	< 0.001

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

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Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
AP-1	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-2	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.002	0.002	0.0027	0.002	0.0031	0.0016
AP-3	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.0109	0.0182	0.0101	0.0021	0.008	0.0182
AP-4	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	0.0306	< 0.025	0.0309	0.027	< 0.025	0.025	0.0239	0.0225	0.0375	0.0229	0.0207	0.0246
AP-5	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-6	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.004	0.0183	0.0068	0.0121	0.0074	0.0108
AP-7	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	0.0468	0.0376	< 0.025	< 0.025	0.0462	0.0412	0.075	0.0555	0.0395	0.0438	0.0947
AP-8	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	0.0319	0.0352	0.0377	0.034	0.0336	0.0348	0.0513	0.0395	0.0426	0.0461	0.0414	0.0386
AP-9	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.0114	0.0062	0.0037	0.0024	0.0028	0.0019
AP-10	Arsenic, total	mg/L	0.0239	0.01		**0.0239**		< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.0013	< 0.001	0.0011	< 0.001	< 0.001	0.0011
AP-11	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.001	< 0.001	< 0.001	0.0037	< 0.001	< 0.001
AP-12	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.001	0.0149	0.0013	0.0038	0.0015	< 0.001
AP-13	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.0031	0.0075	0.0028	0.0032	0.0029	0.0038
AP-14	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.0018	0.0036	0.0039	0.0019	0.0016	0.0022
AW-1	Arsenic, total	mg/L	0.0239	0.01		**0.0239**		0.148	0.192			0.152		0.208	0.16	0.153	0.129	0.168
RW-3	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	0.178	0.109	0.11	0.142	0.169	0.185	0.0831	0.74	0.306	0.188	0.107	0.214
R111	Arsenic, total	mg/L	0.0239	0.01		**0.0239**	0.0185		0.0111	0.0031		0.021	0.0212	0.0019	0.0015	0.0175	0.0166	0.0185
G120	Arsenic, total	mg/L	0.0239	0.01		**0.0239**		0.012				0.0138		0.0162	0.0116	0.0121	0.0104	0.0119
T-1	Arsenic, total	mg/L	0.0239	0.01		**0.0239**										< 0.001	0.0048	0.0019
T-2	Arsenic, total	mg/L	0.0239	0.01		**0.0239**										0.0023	0.0053	0.006
T-4	Arsenic, total	mg/L	0.0239	0.01		**0.0239**										0.0013	0.0055	0.0055
T-5	Arsenic, total	mg/L	0.0239	0.01		**0.0239**										< 0.001	< 0.001	0.0016
T-6	Arsenic, total	mg/L	0.0239	0.01		**0.0239**										0.0076	0.0108	0.0158
AP-1	Barium, total	mg/L	0.51918	2		**2**	0.277	0.309	0.246	0.285	0.236	0.329	0.271	0.262	0.292	0.3	0.269	0.269
AP-2	Barium, total	mg/L	0.51918	2		**2**	0.0721	0.073	0.0751	0.0734	0.0744	0.0656	0.0719	0.0716	0.0678	0.0607	0.0751	0.0727
AP-3	Barium, total	mg/L	0.51918	2		**2**	0.08019999	0.0849	0.0883	0.0951	0.111	0.103	0.0993	0.113	0.095	0.077	0.102	0.132
AP-4	Barium, total	mg/L	0.51918	2		**2**	0.413	0.422	0.392	0.399	0.39	0.404	0.396	0.381	0.39	0.407	0.374	0.39
AP-5	Barium, total	mg/L	0.51918	2		**2**	0.0505	0.0345	0.0908	0.042	0.0408	0.0451	0.0461	0.0471	0.0515	0.051	0.0521	0.0525
AP-6	Barium, total	mg/L	0.51918	2		**2**	0.119	0.141	0.066	0.135	0.0938	0.111	0.0844	0.16	0.119	0.147	0.152	0.154
AP-7	Barium, total	mg/L	0.51918	2		**2**	0.125	0.13	0.119	0.13	0.111	0.162	0.106	0.158	0.118	0.0915	0.108	0.148
AP-8	Barium, total	mg/L	0.51918	2		**2**	0.355	0.356	0.355	0.371	0.36	0.375	0.378	0.374	0.374	0.373	0.407	0.364
AP-9	Barium, total	mg/L	0.51918	2		**2**	0.114	0.399	0.403	0.396	0.284	0.295	0.324	0.399	0.378	0.36	0.405	0.434
AP-10	Barium, total	mg/L	0.51918	2		**2**		0.571	0.553	0.57	0.509	0.602	0.596	0.583	0.613	0.605	0.638	0.628
AP-11	Barium, total	mg/L	0.51918	2		**2**	0.108	0.152	0.176	0.184	0.37	0.161	0.113	0.126	0.154	0.238	0.11	0.122
AP-12	Barium, total	mg/L	0.51918	2		**2**	0.171	0.101	0.153	0.0701	0.0794	0.0649	0.0481	0.138	0.0569	0.0707	0.0515	0.0458
AP-13	Barium, total	mg/L	0.51918	2		**2**	0.119	0.161	0.307	0.26	0.175	0.128	0.121	0.177	0.116	0.131	0.127	0.12
AP-14	Barium, total	mg/L	0.51918	2		**2**	0.0411	0.0343	0.0361	0.0438	0.0413	0.0389	0.0349	0.0636	0.0422	0.0329	0.0371	0.0413
AW-1	Barium, total	mg/L	0.51918	2		**2**		0.64				0.622		1.96	2.02	1.48	0.602	0.446
RW-3	Barium, total	mg/L	0.51918	2		**2**	0.154	0.151	0.158	0.166	0.168	0.172	0.106	0.165	0.166	0.143	0.146	0.18
R111	Barium, total	mg/L	0.51918	2		**2**	0.686		0.161			0.704		0.0598	0.0139	0.369	0.639	0.686
G120	Barium, total	mg/L	0.51918	2		**2**		0.432				0.972		0.556	0.628	0.681	0.614	0.565
T-1	Barium, total	mg/L	0.51918	2		**2**										0.0862	0.118	0.0707
T-2	Barium, total	mg/L	0.51918	2		**2**										0.0771	0.246	0.225
T-4	Barium, total	mg/L	0.51918	2		**2**										0.0382	0.0562	0.0578
T-5	Barium, total	mg/L	0.51918	2		**2**										0.0478	0.0538	0.0564
T-6	Barium, total	mg/L	0.51918	2		**2**										0.314	0.323	0.306

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

City Water, Light and Power
CWLP CCR Surface Impoundments
2022 - 2024 Groundwater Analytical Summary Data

Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
AP-1	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-2	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-3	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-4	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-5	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-6	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-7	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-8	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-9	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	0.0006	0.0011	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-10	Beryllium, total	mg/L	0.0025	0.004		**0.004**		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-11	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	0.0005	0.0007	0.0009	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-12	Beryllium, total	mg/L	0.0025	0.004		**0.004**	0.001	0.0005	0.0018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0015	0.0006	< 0.0005	< 0.0005	< 0.0005
AP-13	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	0.0016	0.0015	< 0.0005	< 0.0005	< 0.0005	0.0009	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-14	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	0.0009	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AW-1	Beryllium, total	mg/L	0.0025	0.004		**0.004**		< 0.0005				< 0.0005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
RW-3	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
R111	Beryllium, total	mg/L	0.0025	0.004		**0.004**	< 0.0005		< 0.0005			< 0.0005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
G120	Beryllium, total	mg/L	0.0025	0.004		**0.004**		< 0.0005				< 0.0005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
T-1	Beryllium, total	mg/L	0.0025	0.004		**0.004**									< 0.0005	< 0.0005	< 0.0005	< 0.0005
T-2	Beryllium, total	mg/L	0.0025	0.004		**0.004**									< 0.0005	< 0.0005	< 0.0005	< 0.0005
T-4	Beryllium, total	mg/L	0.0025	0.004		**0.004**									< 0.0005	< 0.0005	< 0.0005	< 0.0005
T-5	Beryllium, total	mg/L	0.0025	0.004		**0.004**									< 0.0005	< 0.0005	< 0.0005	< 0.0005
T-6	Beryllium, total	mg/L	0.0025	0.004		**0.004**									< 0.0005	< 0.0005	< 0.0005	< 0.0005
AP-1	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-2	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-3	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-4	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-5	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-6	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-7	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-8	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-9	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-10	Cadmium, total	mg/L	0.0025	0.005		**0.005**		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-11	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-12	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-13	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-14	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AW-1	Cadmium, total	mg/L	0.0025	0.005		**0.005**		< 0.002				< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
RW-3	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
R111	Cadmium, total	mg/L	0.0025	0.005		**0.005**	< 0.002		< 0.002			< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
G120	Cadmium, total	mg/L	0.0025	0.005		**0.005**		< 0.002				< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
T-1	Cadmium, total	mg/L	0.0025	0.005		**0.005**									< 0.002	< 0.002	< 0.002	< 0.002
T-2	Cadmium, total	mg/L	0.0025	0.005		**0.005**									< 0.002	< 0.002	< 0.002	< 0.002
T-4	Cadmium, total	mg/L	0.0025	0.005		**0.005**									< 0.002	< 0.002	< 0.002	< 0.002
T-5	Cadmium, total	mg/L	0.0025	0.005		**0.005**									< 0.002	< 0.002	< 0.002	< 0.002
T-6	Cadmium, total	mg/L	0.0025	0.005		**0.005**									< 0.002	< 0.002	< 0.002	< 0.002

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

City Water, Light and Power
CWLP CCR Surface Impoundments
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Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
AP-1	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-2	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-3	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-4	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-5	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-6	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-7	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-8	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-9	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	0.0098	0.0119	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-10	Chromium, total	mg/L	0.0653	0.1		**0.1**		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-11	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	0.0098	0.0158	0.0213	< 0.005	< 0.005	< 0.005	0.0081	< 0.005	< 0.005	< 0.005
AP-12	Chromium, total	mg/L	0.0653	0.1		**0.1**	0.0253	0.0119	0.037	0.0073	< 0.005	< 0.005	< 0.005	0.0332	< 0.005	0.0053	< 0.005	< 0.005
AP-13	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	0.0369	0.0413	0.0059	< 0.005	< 0.005	0.019	< 0.005	< 0.005	< 0.005	< 0.005
AP-14	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	0.0058	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AW-1	Chromium, total	mg/L	0.0653	0.1		**0.1**		< 0.005				< 0.005		0.0101	0.0087	0.0105	< 0.005	< 0.005
RW-3	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
R111	Chromium, total	mg/L	0.0653	0.1		**0.1**	< 0.005		< 0.005			< 0.005		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
G120	Chromium, total	mg/L	0.0653	0.1		**0.1**		< 0.005				< 0.005		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
T-1	Chromium, total	mg/L	0.0653	0.1		**0.1**										< 0.005	0.0096	< 0.005
T-2	Chromium, total	mg/L	0.0653	0.1		**0.1**										< 0.005	< 0.005	< 0.005
T-4	Chromium, total	mg/L	0.0653	0.1		**0.1**										< 0.005	< 0.005	< 0.005
T-5	Chromium, total	mg/L	0.0653	0.1		**0.1**										< 0.005	< 0.005	< 0.005
T-6	Chromium, total	mg/L	0.0653	0.1		**0.1**										< 0.005	< 0.005	< 0.005
AP-1	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-2	Cobalt, total	mg/L	0.0052		0.006	**0.006**	0.0102	0.0089	0.0115	0.0111	0.0091	0.0102	0.0085	0.0091	0.0068	0.0102	0.0073	0.0085
AP-3	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	< 0.005	0.0054	< 0.005	0.0054	< 0.005	0.0051	< 0.005	0.0065	0.0071	< 0.005
AP-4	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-5	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-6	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-7	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-8	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-9	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	0.0053	0.0056	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-10	Cobalt, total	mg/L	0.0052		0.006	**0.006**		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-11	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	0.005	0.0061	0.011	< 0.005	0.0055	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AP-12	Cobalt, total	mg/L	0.0052		0.006	**0.006**	0.0143	0.0077	0.0219	0.007	< 0.005	< 0.005	< 0.005	0.0236	< 0.005	0.0054	< 0.005	< 0.005
AP-13	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	0.0215	0.021	< 0.005	< 0.005	< 0.005	0.0127	< 0.005	< 0.005	< 0.005	< 0.005
AP-14	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0051	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
AW-1	Cobalt, total	mg/L	0.0052		0.006	**0.006**		< 0.005				< 0.005		< 0.005	0.0055	< 0.005	< 0.005	< 0.005
RW-3	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
R111	Cobalt, total	mg/L	0.0052		0.006	**0.006**	< 0.005		< 0.005			< 0.005		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
G120	Cobalt, total	mg/L	0.0052		0.006	**0.006**		< 0.005				< 0.005		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
T-1	Cobalt, total	mg/L	0.0052		0.006	**0.006**										< 0.005	0.0063	< 0.005
T-2	Cobalt, total	mg/L	0.0052		0.006	**0.006**										0.0075	< 0.005	< 0.005
T-4	Cobalt, total	mg/L	0.0052		0.006	**0.006**										< 0.005	0.005	< 0.005
T-5	Cobalt, total	mg/L	0.0052		0.006	**0.006**										< 0.005	< 0.005	< 0.005
T-6	Cobalt, total	mg/L	0.0052		0.006	**0.006**										< 0.005	< 0.005	< 0.005

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

City Water, Light and Power
CWLP CCR Surface Impoundments
2022 - 2024 Groundwater Analytical Summary Data

Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
AP-1	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-2	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-3	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-4	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-5	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-6	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-7	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-8	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-9	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	0.0168	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-10	Lead, total	mg/L	0.0075		0.015	**0.015**		< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-11	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-12	Lead, total	mg/L	0.0075		0.015	**0.015**	0.0225	< 0.015	0.0228	< 0.015	< 0.015	< 0.015	< 0.015	0.0161	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-13	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.015	0.0163	0.0177	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AP-14	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	0.0189	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
AW-1	Lead, total	mg/L	0.0075		0.015	**0.015**		0.0018				< 0.001		< 0.015	< 0.015	0.0051	< 0.0075	< 0.0075
RW-3	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.015	< 0.001	< 0.015	< 0.015	< 0.015	< 0.001	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0075	< 0.0075
R111	Lead, total	mg/L	0.0075		0.015	**0.015**	< 0.0075		< 0.001			0.002		< 0.015	< 0.015	< 0.001	< 0.0075	< 0.0075
G120	Lead, total	mg/L	0.0075		0.015	**0.015**		< 0.001				0.0037		< 0.015	< 0.015	< 0.001	< 0.0075	< 0.0075
T-1	Lead, total	mg/L	0.0075		0.015	**0.015**										< 0.015	< 0.0075	< 0.0075
T-2	Lead, total	mg/L	0.0075		0.015	**0.015**										< 0.015	< 0.0075	< 0.0075
T-4	Lead, total	mg/L	0.0075		0.015	**0.015**										< 0.015	< 0.0075	< 0.0075
T-5	Lead, total	mg/L	0.0075		0.015	**0.015**										< 0.015	< 0.0075	< 0.0075
T-6	Lead, total	mg/L	0.0075		0.015	**0.015**										< 0.015	< 0.0075	< 0.0075
AP-1	Lithium	mg/L	0.0124		0.04	**0.04**	0.0098	0.0096	0.0087	< 0.05	0.0566	< 0.005	0.0109	0.0085	0.0099	< 0.05	0.0103	0.0094
AP-2	Lithium	mg/L	0.0124		0.04	**0.04**	0.0057	0.0056	0.0055	< 0.05	0.0476	< 0.005	0.0063	0.0056	0.0059	< 0.05	0.0081	0.0068
AP-3	Lithium	mg/L	0.0124		0.04	**0.04**	0.0053	< 0.005	< 0.005	< 0.05	0.0501	< 0.005	0.0063	0.0051	0.0062	< 0.05	0.0064	0.0062
AP-4	Lithium	mg/L	0.0124		0.04	**0.04**	0.0092	0.0092	0.0077	< 0.05	0.0196	< 0.005	0.0078	0.0051	0.0076	< 0.05	0.0072	0.0077
AP-5	Lithium	mg/L	0.0124		0.04	**0.04**	0.0053	< 0.005	0.0104	< 0.05	0.0142	0.0074	0.0046	< 0.005	< 0.005	< 0.05	0.0062	0.0043
AP-6	Lithium	mg/L	0.0124		0.04	**0.04**	0.0071	0.0079	< 0.005	< 0.05	0.014	< 0.005	< 0.003	< 0.005	< 0.005	< 0.05	0.0098	0.0104
AP-7	Lithium	mg/L	0.0124		0.04	**0.04**	0.009	0.0079	< 0.005	< 0.05	< 0.005	0.0113	0.0047	< 0.005	< 0.005	< 0.05	0.0063	0.0079
AP-8	Lithium	mg/L	0.0124		0.04	**0.04**	0.0068	0.0065	0.0065	< 0.05	0.0201	< 0.005	0.0074	< 0.005	0.0069	< 0.05	0.0075	0.0069
AP-9	Lithium	mg/L	0.0124		0.04	**0.04**	< 0.005	0.0073	0.0114	< 0.05	< 0.005	0.0067	0.0054	< 0.005	0.0059	< 0.05	0.0069	0.0066
AP-10	Lithium	mg/L	0.0124		0.04	**0.04**		0.01	0.0087	< 0.05	< 0.005	< 0.005	0.01	< 0.005	0.009	< 0.05	0.0094	0.0101
AP-11	Lithium	mg/L	0.0124		0.04	**0.04**	< 0.005	< 0.005	0.017	< 0.05	0.0115	0.0068	0.0045	< 0.005	< 0.005	< 0.05	0.0044	0.005
AP-12	Lithium	mg/L	0.0124		0.04	**0.04**	0.0257	0.0141	0.0331	< 0.05	< 0.005	0.006	0.0072	0.0352	0.0064	< 0.05	0.0077	0.0065
AP-13	Lithium	mg/L	0.0124		0.04	**0.04**	0.0134	0.0114	0.0299	< 0.05	0.0167	0.0152	0.0133	0.0237	0.0109	< 0.05	0.0124	0.012
AP-14	Lithium	mg/L	0.0124		0.04	**0.04**	0.0074	0.0066	0.0063	< 0.05	0.0716	< 0.005	0.0076	< 0.005	0.0076	< 0.05	0.0078	0.0072
AW-1	Lithium	mg/L	0.0124		0.04	**0.04**								0.0739	0.0184	< 0.05	0.0145	0.0113
RW-3	Lithium	mg/L	0.0124		0.04	**0.04**	0.0066	0.0064	0.0064	< 0.05	0.0179	< 0.005	< 0.003	0.0147	< 0.005	< 0.05	0.0038	0.0047
R111	Lithium	mg/L	0.0124		0.04	**0.04**	0.0066							0.0185	< 0.005	< 0.05	0.007	0.0066
G120	Lithium	mg/L	0.0124		0.04	**0.04**								0.0486	0.008	< 0.05	0.0081	0.0086
T-1	Lithium	mg/L	0.0124		0.04	**0.04**										< 0.05	0.0266	0.0199
T-2	Lithium	mg/L	0.0124		0.04	**0.04**										< 0.05	0.0394	0.0345
T-4	Lithium	mg/L	0.0124		0.04	**0.04**										< 0.05	0.0164	0.0161
T-5	Lithium	mg/L	0.0124		0.04	**0.04**										< 0.05	0.0095	0.0109
T-6	Lithium	mg/L	0.0124		0.04	**0.04**										< 0.05	0.0149	0.0134

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

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Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
AP-1	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-2	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-3	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-4	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-5	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-6	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-7	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-8	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-9	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-10	Mercury, total	mg/L	0.0005	0.002		**0.002**		< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-11	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00021	< 0.0002	< 0.0002	< 0.0002
AP-12	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-13	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AP-14	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
AW-1	Mercury, total	mg/L	0.0005	0.002		**0.002**		< 0.0002				< 0.0002		< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RW-3	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
R111	Mercury, total	mg/L	0.0005	0.002		**0.002**	< 0.0002		< 0.0002			< 0.0002		< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
G120	Mercury, total	mg/L	0.0005	0.002		**0.002**		< 0.0002				< 0.0002		< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
T-1	Mercury, total	mg/L	0.0005	0.002		**0.002**										< 0.0002	< 0.0002	< 0.0002
T-2	Mercury, total	mg/L	0.0005	0.002		**0.002**										< 0.0002	< 0.0002	< 0.0002
T-4	Mercury, total	mg/L	0.0005	0.002		**0.002**										< 0.0002	< 0.0002	< 0.0002
T-5	Mercury, total	mg/L	0.0005	0.002		**0.002**										< 0.0002	< 0.0002	< 0.0002
T-6	Mercury, total	mg/L	0.0005	0.002		**0.002**										< 0.0002	< 0.0002	< 0.0002
AP-1	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-2	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-3	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-4	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-5	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-6	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-7	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-8	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-9	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-10	Molybdenum, total	mg/L	0.025		0.1	**0.1**		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-11	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-12	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-13	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AP-14	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
AW-1	Molybdenum, total	mg/L	0.025		0.1	**0.1**								< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
RW-3	Molybdenum, total	mg/L	0.025		0.1	**0.1**	0.0103	0.0106	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
R111	Molybdenum, total	mg/L	0.025		0.1	**0.1**	< 0.01							< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
G120	Molybdenum, total	mg/L	0.025		0.1	**0.1**								< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
T-1	Molybdenum, total	mg/L	0.025		0.1	**0.1**										< 0.01	< 0.01	< 0.01
T-2	Molybdenum, total	mg/L	0.025		0.1	**0.1**										< 0.01	< 0.01	< 0.01
T-4	Molybdenum, total	mg/L	0.025		0.1	**0.1**										< 0.01	< 0.01	< 0.01
T-5	Molybdenum, total	mg/L	0.025		0.1	**0.1**										< 0.01	< 0.01	< 0.01
T-6	Molybdenum, total	mg/L	0.025		0.1	**0.1**										< 0.01	< 0.01	< 0.01

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

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Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
AP-1	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-2	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-3	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-4	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-5	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0011	< 0.001	< 0.001	< 0.001
AP-6	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0022
AP-7	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-8	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-9	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-10	Selenium, total	mg/L	0.025	0.05		**0.05**		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-11	Selenium, total	mg/L	0.025	0.05		**0.05**	0.0056	< 0.001	< 0.001	< 0.001	0.0018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-12	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-13	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AP-14	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AW-1	Selenium, total	mg/L	0.025	0.05		**0.05**		< 0.04				< 0.04		< 0.001	< 0.001	< 0.04	< 0.001	< 0.001
RW-3	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001	< 0.04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
R111	Selenium, total	mg/L	0.025	0.05		**0.05**	< 0.001		< 0.04			< 0.04		< 0.001	< 0.001	< 0.04	< 0.001	< 0.001
G120	Selenium, total	mg/L	0.025	0.05		**0.05**		< 0.04				< 0.04		< 0.001	< 0.001	< 0.04	< 0.001	< 0.001
T-1	Selenium, total	mg/L	0.025	0.05		**0.05**										0.0042	< 0.001	< 0.001
T-2	Selenium, total	mg/L	0.025	0.05		**0.05**										0.0011	< 0.001	< 0.001
T-4	Selenium, total	mg/L	0.025	0.05		**0.05**										0.0012	< 0.001	< 0.001
T-5	Selenium, total	mg/L	0.025	0.05		**0.05**										< 0.001	< 0.001	0.0012
T-6	Selenium, total	mg/L	0.025	0.05		**0.05**										< 0.001	< 0.001	< 0.001
AP-1	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	1.52	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-2	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-3	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-4	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-5	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-6	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-7	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-8	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-9	Thallium, total	mg/L	0.002	0.002		**0.002**	0.0032	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-10	Thallium, total	mg/L	0.002	0.002		**0.002**		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-11	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-12	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-13	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AP-14	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
AW-1	Thallium, total	mg/L	0.002	0.002		**0.002**		< 0.002				< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
RW-3	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
R111	Thallium, total	mg/L	0.002	0.002		**0.002**	< 0.002		< 0.002			< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
G120	Thallium, total	mg/L	0.002	0.002		**0.002**		< 0.002				< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
T-1	Thallium, total	mg/L	0.002	0.002		**0.002**										< 0.002	< 0.002	< 0.002
T-2	Thallium, total	mg/L	0.002	0.002		**0.002**										< 0.002	< 0.002	< 0.002
T-4	Thallium, total	mg/L	0.002	0.002		**0.002**										< 0.002	< 0.002	< 0.002
T-5	Thallium, total	mg/L	0.002	0.002		**0.002**										< 0.002	< 0.002	< 0.002
T-6	Thallium, total	mg/L	0.002	0.002		**0.002**										< 0.002	< 0.002	< 0.002

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

City Water, Light and Power
CWLP CCR Surface Impoundments
2022 - 2024 Groundwater Analytical Summary Data

Well	Parameter	Units	Background	40 CFR 257	MCL 40 CFR 141	GPS	2022-Q1	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3	2024-Q4
AP-1	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2.36	< 2	< 2	0.714	1.38	1.4	< 2	0.85	< 2	< 2	< 2	1.23
AP-2	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2	< 2	0.431	0.87	2.5	< 2	0.42	< 2	< 2	< 2	< 2
AP-3	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2	< 2	< 0.5046	0.54	0.36	< 2	0.65	< 2	< 2	< 2	< 2
AP-4	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2.93	< 2	< 2	0.901	1.04	2.89	1.12	1.58	< 2	< 2	< 4	< 2
AP-5	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2.45	< 2	< 0.1664	1.29	0.57	< 2	1.26	< 2	< 2	< 4	< 2
AP-6	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2.2	< 2	2.138	0.47	1.29	< 2	0.52	< 2	< 2	< 4	< 2
AP-7	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2	< 2	< 0.3621	< 2	1.54	< 2	0.8	< 2	< 2	< 4	< 2
AP-8	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2.16	< 2	1.955	1.98	2.88	< 2	1.55	< 2	< 2	< 4	2.57
AP-9	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2	< 2	3.012	< 2	0.15	< 2	0.64	< 2	< 2	< 4	1.01
AP-10	Radium-226 + Radium-228	pCi/L	3.79	5		**5**		< 2	< 2	1.942	2.04	2.66	1.12	3.14	< 2	< 2	< 4	1.61
AP-11	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2	< 2	< -2.1708	< 2	0.47	< 2	0.52	< 2	1.28	< 4	< 2
AP-12	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2.46	3.44	2.215	< 2	1.07	< 2	0.91	< 2	< 2	< 4	< 2
AP-13	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2	< 2.17	2.719	1.22	0.24	2.54	0.69	< 2	< 2	< 4	< 2
AP-14	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2.35	< 2	0.264	< 2	0.45	< 2	0.86	< 2	< 2	< 4	< 2
AW-1	Radium-226 + Radium-228	pCi/L	3.79	5		**5**								0.45	3.39	1.25	< 2	1.17
RW-3	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	< 2	< 2	< 2	< 0.432	-0.09	0.48	< 2	2.46	< 2	< 2	< 2	1.23
R111	Radium-226 + Radium-228	pCi/L	3.79	5		**5**	1.12							0.56	< 1	< 2	< 2	< 2.12
G120	Radium-226 + Radium-228	pCi/L	3.79	5		**5**								1.1	< 2	1.03	1.22	3.52
T-1	Radium-226 + Radium-228	pCi/L	3.79	5		**5**										< 2	< 4	< 2
T-2	Radium-226 + Radium-228	pCi/L	3.79	5		**5**										< 2	< 4	< 2
T-4	Radium-226 + Radium-228	pCi/L	3.79	5		**5**										< 2	< 4	< 2
T-5	Radium-226 + Radium-228	pCi/L	3.79	5		**5**										< 2	< 4	< 2
T-6	Radium-226 + Radium-228	pCi/L	3.79	5		**5**										< 2	< 4	1.08

1. A shaded value indicates an exceedance of the Groundwater Protection Standard (GPS), which is higher of the MCL and the Background.

City Water, Light and Power
CWLP CCR Surface Impoundments
2024 TCLP & SPLP Analytical Results

Parameter	Units	D1 19.5-21.5 4/29/2024 3:00:00 PM Solid	D1 36.5-38.5 4/29/2024 3:30:00 PM Solid	D2 19.5-21.5 4/29/2024 9:30:00 AM Solid	D2 33.5-35.5 4/29/2024 10:00:00 AM Solid	D3 14.5-29.5 4/30/2024 10:15:00 AM Solid	D3 4.5-6.5 4/30/2024 10:15:00 AM Solid	D4 19.5-21.5 4/30/2024 2:45:00 PM Solid	D4 29.5-31.5 4/30/2024 3:00:00 PM Solid	L1 14.5-21.5 5/2/2024 2:50:00 PM Solid	L1 24.5-31.5 5/2/2024 3:30:00 PM Solid	L3 19.5-21.5 5/2/2024 11:15:00 AM Solid	L3 29.5-32.7 5/2/2024 11:00:00 AM Solid	L4 10ft-15.3ft 5/2/2024 8:15:00 AM Solid	L5 19.5-21.5 5/3/2024 8:30:00 AM Solid	L5 32.5-35.2 5/3/2024 9:00:00 AM Solid
pH	S.U.	10	9.64	9.25	9.18	9.38	9.93	9.63	10.2	8.13	9.14	8.14	8.79	8.49	8.14	8.27
Chloride, Shake Extract	mg/L	J 1	J 1	7	8	< 4	< 4	J 2	11	J 1	5	J 4	13	25	6	11
Fluoride, Shake Extract	mg/L	0.13	0.19	0.2	J 0.37	0.11	J 0.08	J 0.06	0.14	0.37	0.21	0.2	0.2	0.42	0.36	J 0.08
Sulfate, Shake Extract	mg/L	65	45	226	158	31	45	70	102	103	139	224	574	149	67	73
Antimony, SPLP	mg/L	0.0035	0.0078	0.0141	0.0273	0.007	0.0029	0.0034	0.024	0.0114	0.0012	0.0054	0.0037	J 0.0009	0.0067	0.0025
Antimony, TCLP	mg/L	0.017	0.0237	0.0163	0.0125	0.0197	0.0178	0.0395	0.0376	0.0019	0.0064	0.0066	0.0024	0.0012	0.0072	0.0017
Arsenic, SPLP	mg/L	< 0.01	0.0471	< 0.01	0.039	0.0173	< 0.01	< 0.01	0.0114	0.0276	< 0.01	0.0195	< 0.01	< 0.01	0.0331	< 0.01
Arsenic, TCLP	mg/L	< 0.01	0.0528	0.0505	0.345	0.0155	< 0.01	< 0.01	0.0242	< 0.01	< 0.01	0.0279	0.0337	< 0.01	0.0276	< 0.01
Barium, SPLP	mg/L	< 0.045	< 0.045	J 0.021	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	J 0.026	J 0.028	J 0.025	< 0.045	0.0596	J 0.023
Barium, TCLP	mg/L	0.358	0.514	0.556	0.352	0.373	0.492	0.238	0.287	0.345	0.172	0.635	0.47	1.04	0.574	1.24
Beryllium, SPLP	mg/L	< 0.001	J 0.0002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Beryllium, TCLP	mg/L	0.0145	0.0085	0.0231	J 0.0002	0.0113	0.0114	0.0056	0.0012	J 0.0007	0.0015	< 0.001	0.0054	< 0.001	0.0049	< 0.001
Boron, SPLP	mg/L	5.11	2.94	4.2	3.05	2.34	2.65	3.77	2.77	< 1	2.69	J 0.32	J 0.6	< 1	1.05	2.15
Boron, TCLP	mg/L	26.6	10.9	9.63	4.05	8.74	25.9	S 26.9	6.25	J 0.32	17.2	J 0.69	1.23	J 0.59	2.32	2.79
Cadmium, SPLP	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Cadmium, TCLP	mg/L	0.0293	0.0706	0.0638	< 0.002	0.0475	0.0302	0.0422	0.0063	0.0045	0.0045	0.0154	0.0397	< 0.002	0.149	0.0022
Chromium, SPLP	mg/L	J 0.0049	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chromium, TCLP	mg/L	0.105	0.0707	0.116	< 0.01	0.0438	0.0692	0.0151	< 0.01	< 0.01	< 0.01	< 0.01	0.0185	< 0.01	J 0.0082	< 0.01
Cobalt, SPLP	mg/L	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
Cobalt, TCLP	mg/L	0.0145	0.0116	0.0182	0.013	J 0.0054	0.0118	0.0107	0.0089	J 0.0054	J 0.0033	0.0065	0.0161	0.0077	0.0218	J 0.0043
Lead, SPLP	mg/L	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075
Lead, TCLP	mg/L	< 0.0075	0.0102	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	0.0247	< 0.0075	< 0.0075	< 0.0075
Lithium, SPLP	mg/L	0.0033	0.0112	0.0078	0.0065	0.0034	0.0033	0.0075	0.0059	< 0.003	J 0.003	J 0.0015	J 0.003	< 0.003	J 0.0027	0.0033
Lithium, TCLP	mg/L	0.0112	0.0367	0.0228	0.0707	0.01	0.0131	0.0192	0.0374	0.0036	0.0087	0.0053	0.0061	0.0034	0.0153	0.0183
Mercury TCLP	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00029	< 0.0002	< 0.0002	< 0.0002	0.00028	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Mercury, SPLP	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Molybdenum, SPLP	mg/L	0.216	0.144	0.155	5.21	0.0355	0.0138	0.0495	0.134	0.0145	< 0.01	0.0111	0.0169	< 0.01	J 0.0076	0.0904
Molybdenum, TCLP	mg/L	0.0402	0.0554	0.0571	1.27	0.0415	0.0375	0.105	0.179	< 0.01	0.0118	0.0307	< 0.01	< 0.01	J 0.0081	0.0375
Selenium, SPLP	mg/L	J 0.03	J 0.021	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	J 0.021	J 0.019	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium, TCLP	mg/L	J 0.017	J 0.037	J 0.017	< 0.05	J 0.03	< 0.05	< 0.05	J 0.022	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thallium, SPLP	mg/L	< 0.002	J 0.001	< 0.002	J 0.0015	J 0.0017	< 0.002	J 0.0017	J 0.0013	< 0.002	< 0.002	< 0.002	< 0.002	J 0.0011	< 0.002	J 0.0019
Thallium, TCLP	mg/L	0.0229	0.0268	0.0257	J 0.0018	0.0185	0.0252	0.0225	0.0243	0.0023	0.0041	0.0086	0.006	J 0.0015	0.0199	0.0021
Radium-226 + Radium-228	pCi/g	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 4.97	< 5.32

Qualifiers
< - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside recovery limits

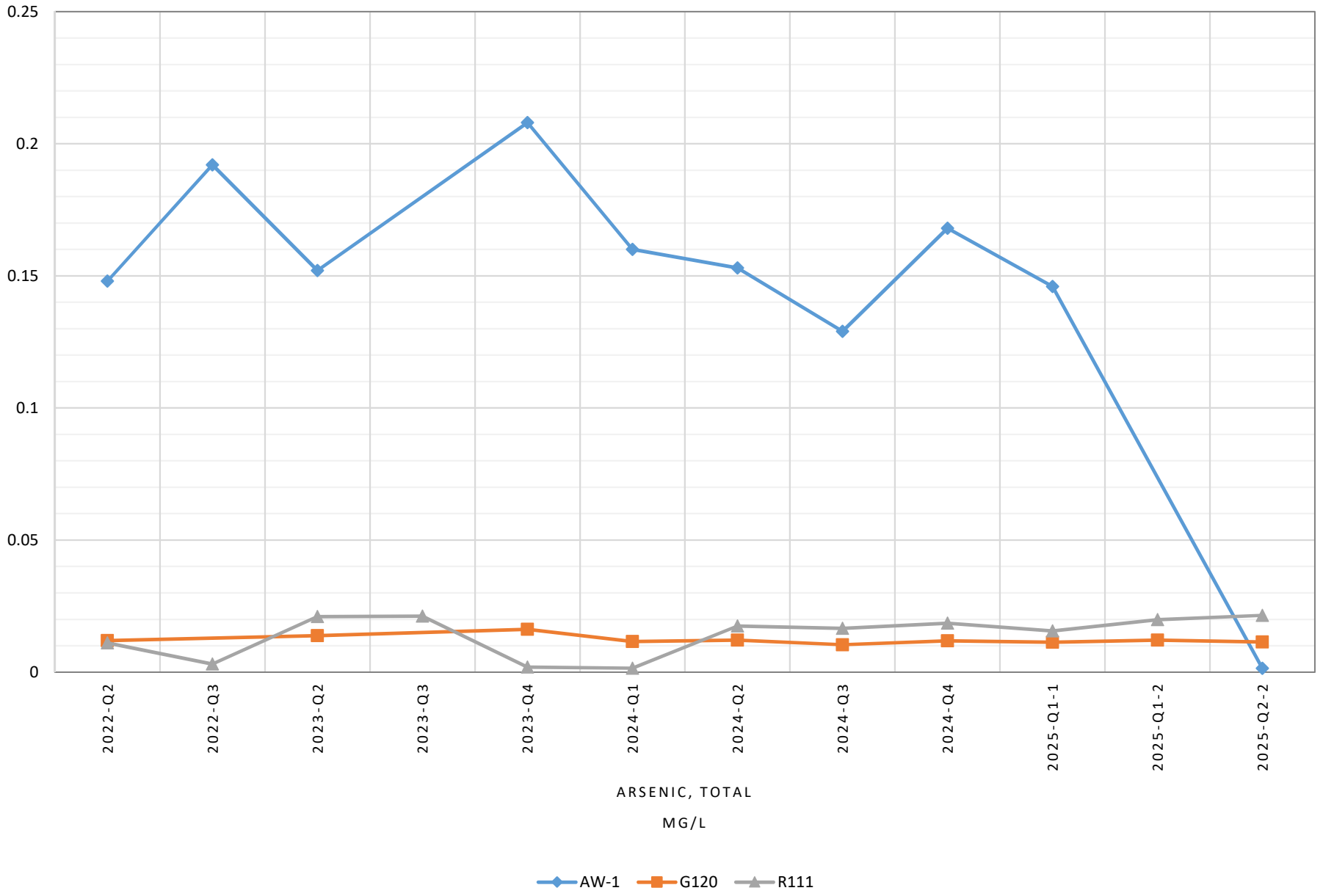
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CWLP CCR Surface Impoundments
2024 TCLP & SPLP Analytical Results

Parameter	Units	D-1 25ft. 4/29/2024 3:00:00 PM Aqueous	D-2 20ft. 4/29/2024 9:30:00 AM Aqueous	D-3 20ft. 4/30/2024 10:00:00 AM Aqueous	D-4 20ft. 4/30/2024 2:45:00 PM Aqueous	L1-20ft. 5/2/2024 2:50:00 PM Aqueous	L3-20ft. 5/2/2024 10:15:00 AM Aqueous	L4 18ft. 5/2/2024 8:40:00 AM Aqueous	L5 20ft. 5/3/2024 8:30:00 AM Aqueous
pH	S.U.	H 9.85	H 9.27	H 10.1	H 9.1	H 7.86	H 8.1	H 7.35	H 7.62
Chloride, Total	mg/L	63	236	41	139	122	269	154	202
Fluoride, Total	mg/L	0.32	0.21	0.33	0.43	0.5	1.07	1.19	1.32
Sulfate, Total	mg/L	1740	1720	1000	2050	1080	2660	1050	2620
Antimony, Total	mg/L	J 0.061	J 0.024	0.23	0.0812	BJ 0.027	B 0.0655	0.002	<B 0.1
Arsenic, Total	mg/L	1.17	0.279	2.33	0.378	0.717	2.43	0.0512	2.58
Barium, Total	mg/L	2.48	1.13	3.51	0.975	3.48	1.49	0.308	1.6
Beryllium, Total	mg/L	0.254	0.064	0.439	0.0674	0.0542	0.102	0.0024	0.0911
Boron, Total	mg/L	78.6	89	105	73.1	4.91	25.8	2.15	28.9
Cadmium, Total	mg/L	0.222	0.0541	0.492	J 0.068	0.0776	0.26	0.0019	0.296
Chromium, Total	mg/L	3.91	0.902	6.25	1.03	0.993	2.08	0.0632	1.81
Cobalt, Total	mg/L	0.241	0.0579	0.323	J 0.061	0.154	0.336	0.0213	0.296
Lead, Total	mg/L	1.04	0.199	1.46	0.266	B 0.655	B 3.4	0.0526	2.78
Lithium, Total	mg/L	0.428	0.154	0.571	0.228	0.172	0.621	0.0288	0.613
Mercury, Total	mg/L	0.00562	0.00046	H 0.00685	0.00717	0.00198	0.00926	0.0005	0.00559
Molybdenum, Total	mg/L	15.7	8.04	2.61	2.3	0.161	0.218	0.0218	0.282
Selenium, Total	mg/L	J 0.1	< 0.05	J 0.13	J 0.09	0.0906	0.158	0.0066	0.205
Thallium, Total	mg/L	J 0.13	J 0.049	0.274	J 0.066	< 0.04	0.0433	J 0.0012	< 0.1
Radium-226 + Radium-228	pci/L	< 2.86	6.81	< 5	< 6.68	< 2.5	< 4.5	< 2.05	17.74

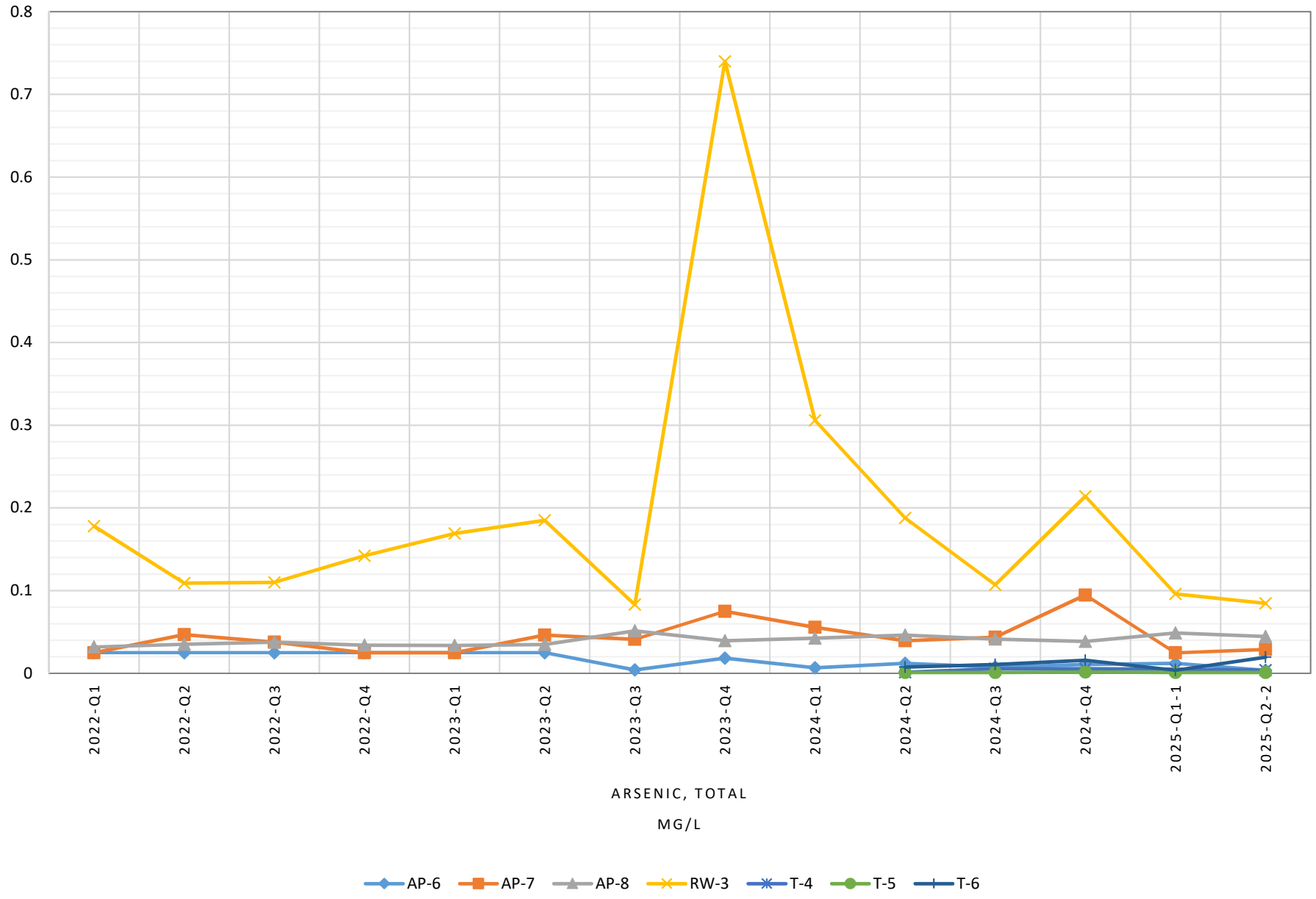
Qualifiers
< - Not Detected at the Reporting Limit
B - Analyte detected in associated Method Blank
H - Hold times exceeded
J - Analyte detected below quantitation limits

Appendix E:
Exceedance Parameter Trend Graphs

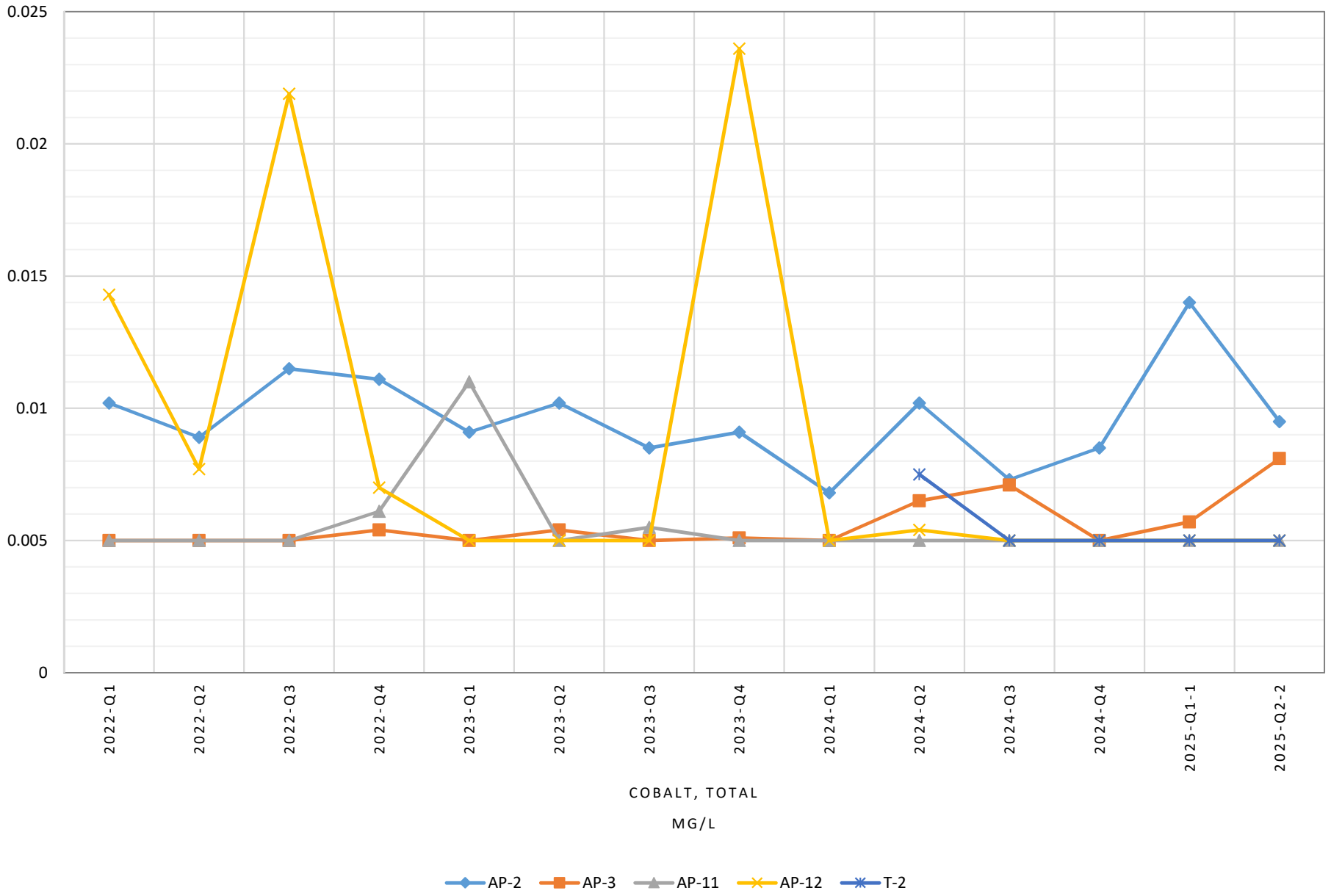
CITY, WATER, LIGHT & POWER



CITY, WATER, LIGHT & POWER



CITY, WATER, LIGHT & POWER



APPENDIX F:
Cross-Sections

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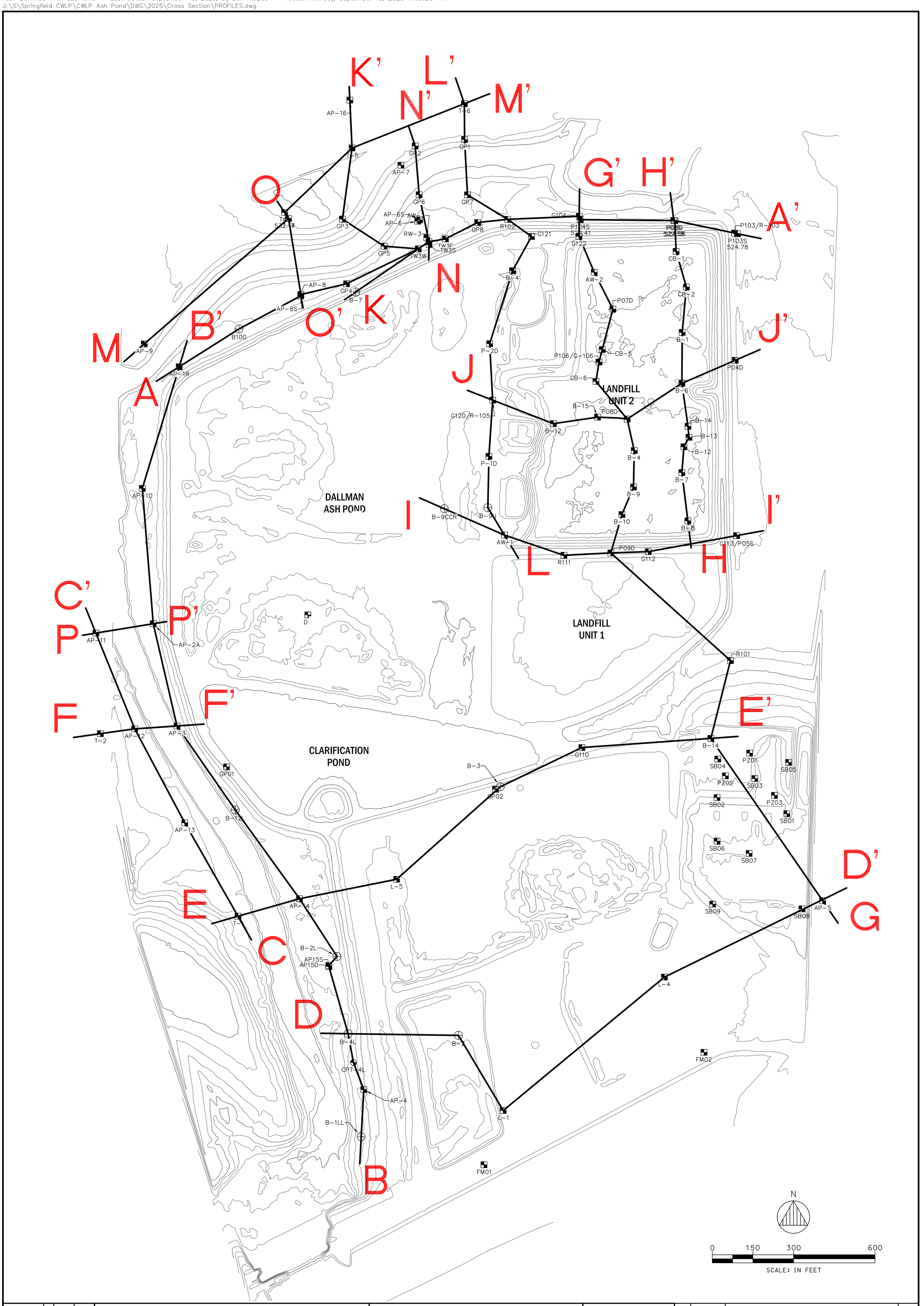


FIG. 1

GEOLOGIC CROSS-SECTION LOCATIONS MAP

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2024

PROJECT ID: 240227/0010

SHEET NUMBER:

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

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WEST

A

MSL

EAST

A'

MSL

B-B'

K-K'

L-L'

G-G'

H-H'

AP-1R 533.10

B100 533.00

AP-8S 535.59

AP-8 537.20

GP-4 536.80

TW3W 536.80

RW-3/TW3N 536.80

TW3E 536.00

GP8 530.08

R102 535.76

G104 530.00

P104S 532.67

P035 529.90

P030 530.50

P103D 536.30

P103S 537.78

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527.44

525.07

522.41

521.89

524.06

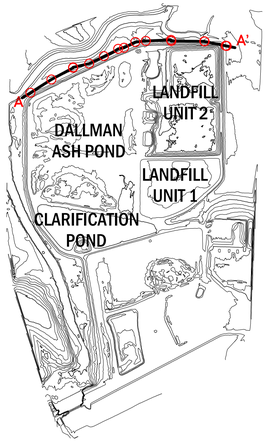
522.58

524.89

524.78

EOB

545 540 535 530 525 520 515 510 505 500 495 490 485 480 475 470 465 460 455 450 445 440 435 430 425

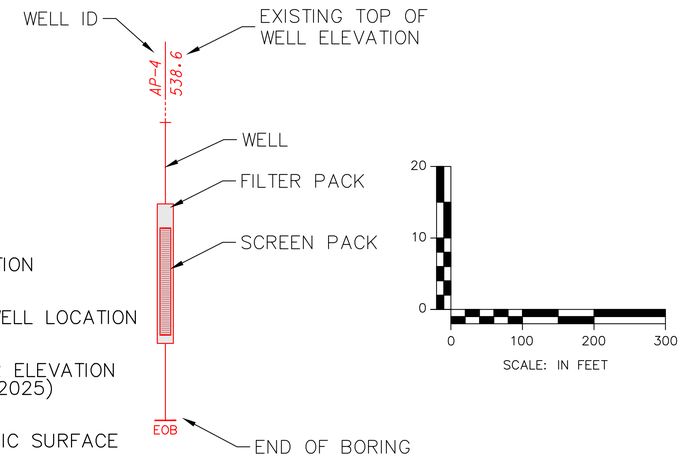


NOTES

1. DEPTH AND THICKNESS OF SUBSURFACE STRATA WERE GENERALIZED FROM AND INTERPOLATED BETWEEN BORINGS. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE LOCATION OF THE BORING. SEE BORING LOGS FOR DETAILED DESCRIPTION.
2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- CLAYSTONE
- SANDSTONE
- LIMESTONE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



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GEOLOGIC CROSS-SECTION A-A'

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

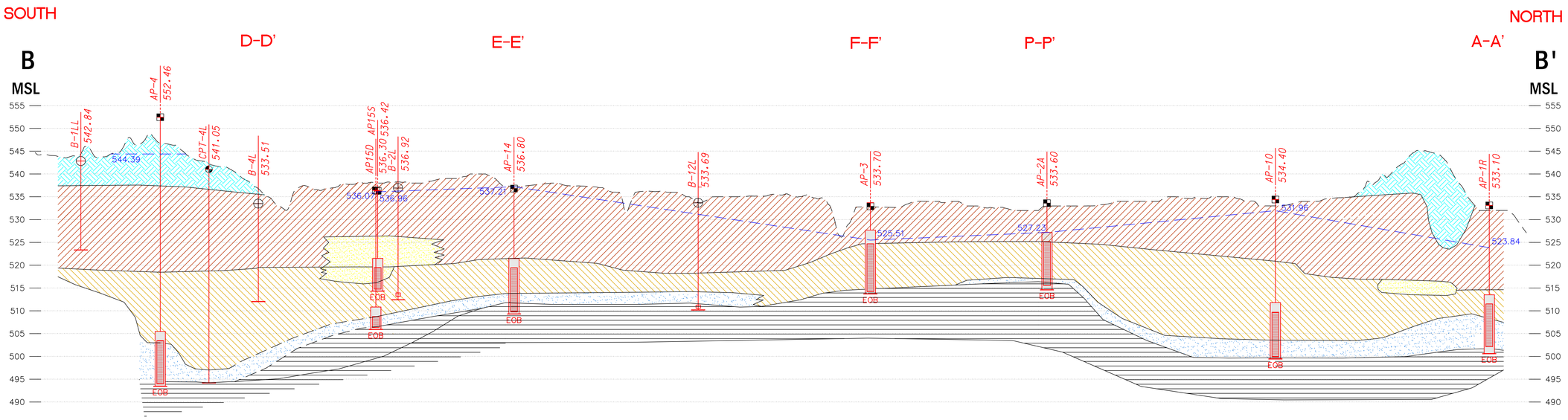
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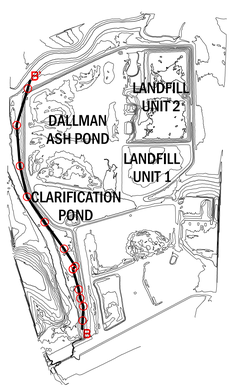
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A-A'

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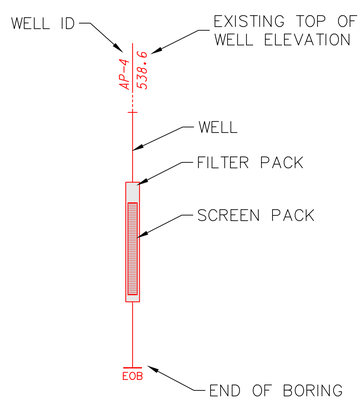


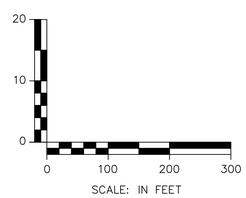
NOTES

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2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- SHALLOW SAND
- BORING LOCATION
- MONITORING WELL LOCATION
- CPT BORING LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





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GEOLOGIC CROSS-SECTION B-B'

PLANS PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

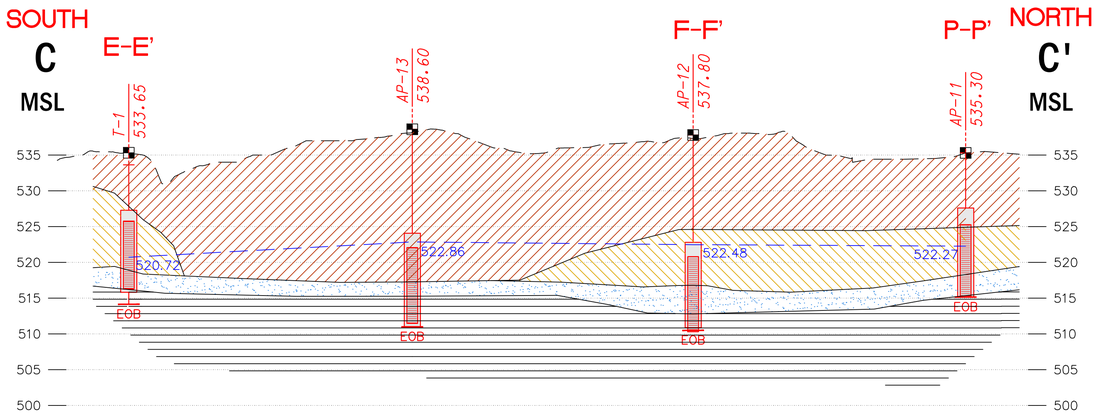
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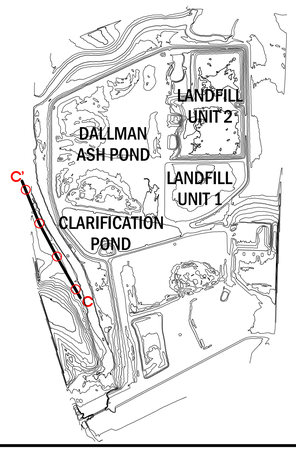
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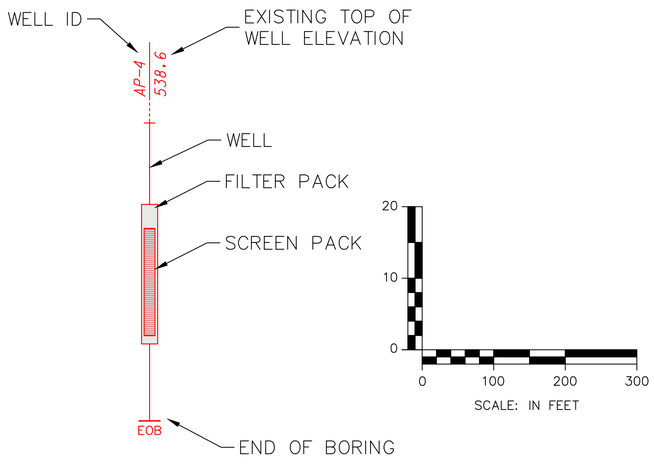


NOTES

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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



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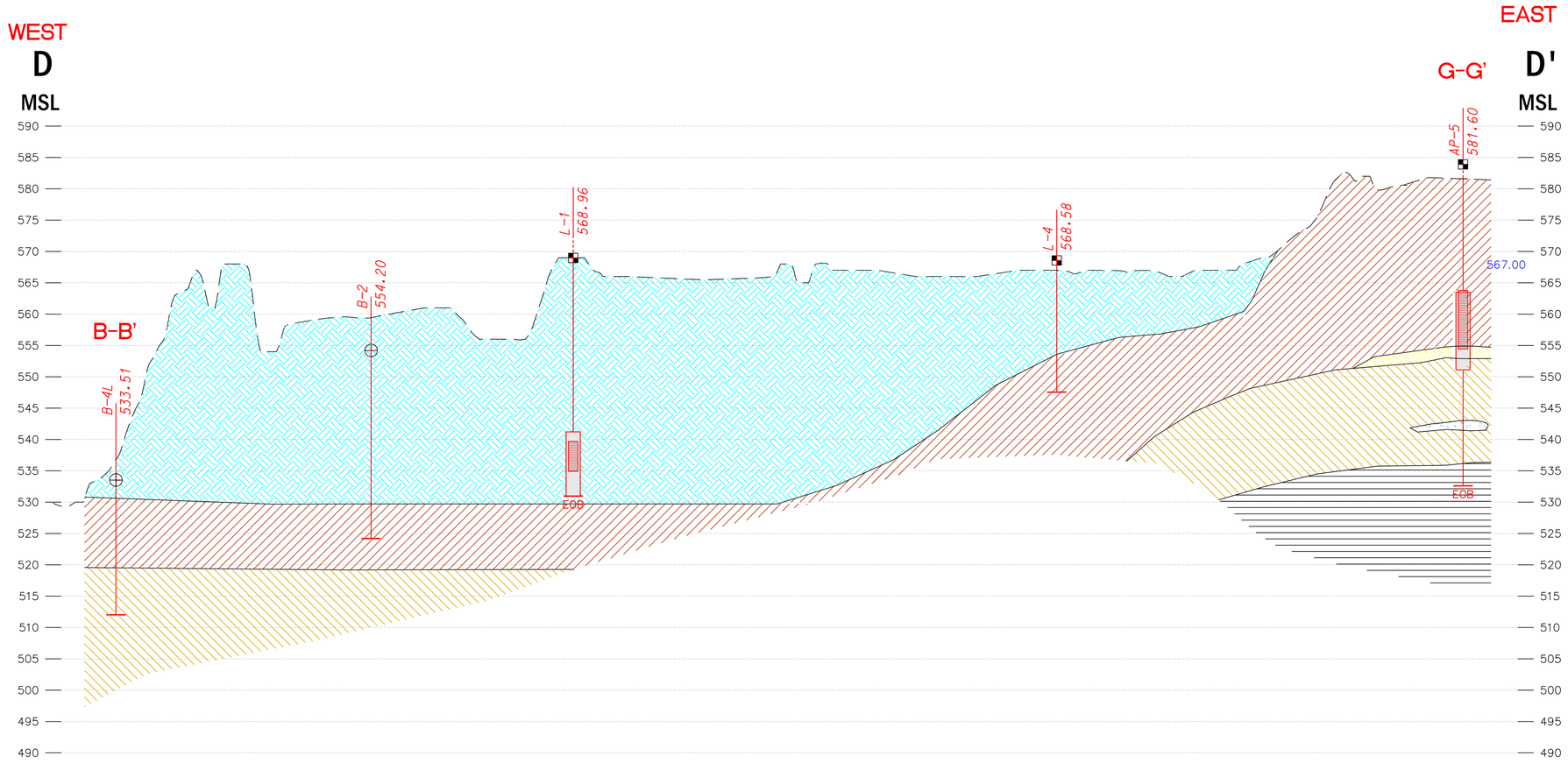
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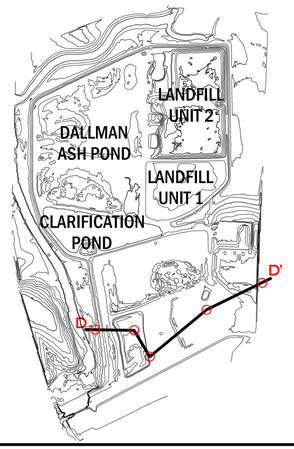
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CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025
PROJECT ID: 240338/0014
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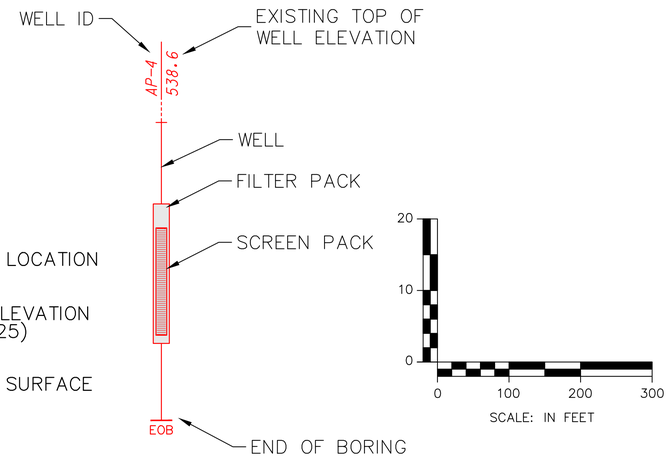


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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



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GEOLOGIC CROSS-SECTION D-D'

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SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

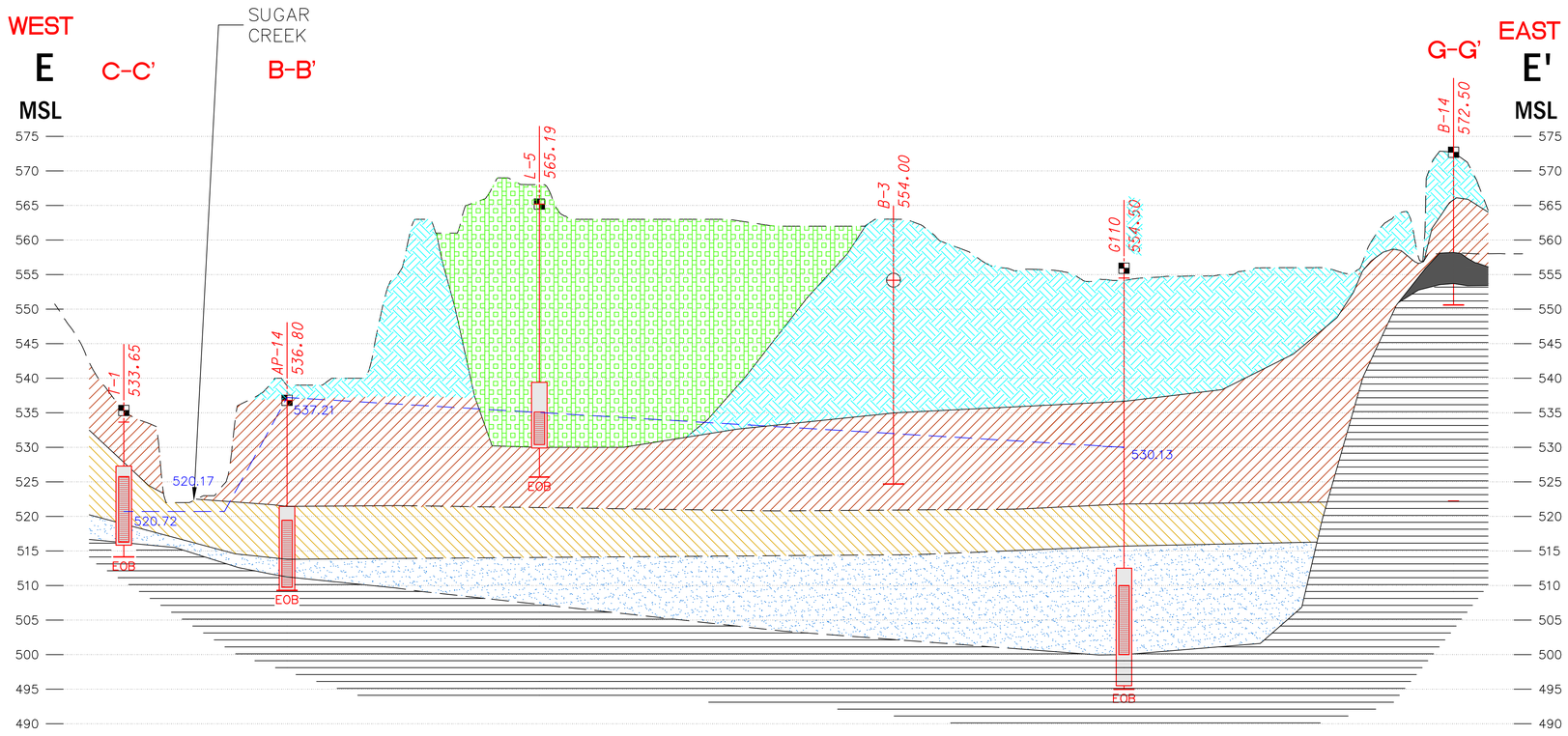
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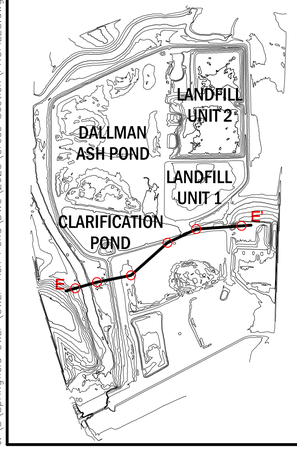
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D-D'

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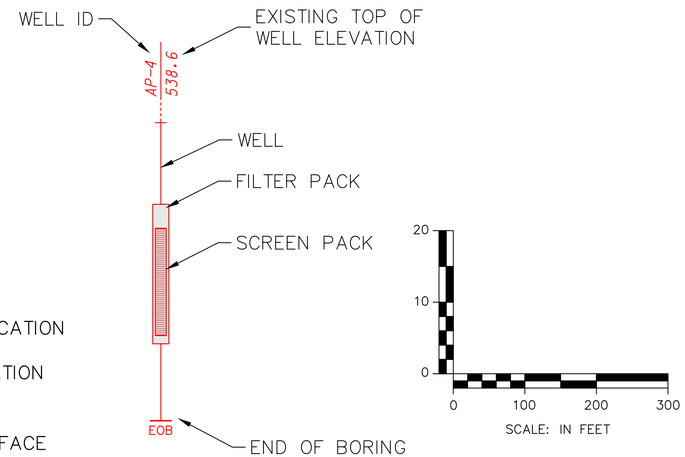


NOTES

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2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- CCR ASH
- COAL
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

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3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION E-E'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

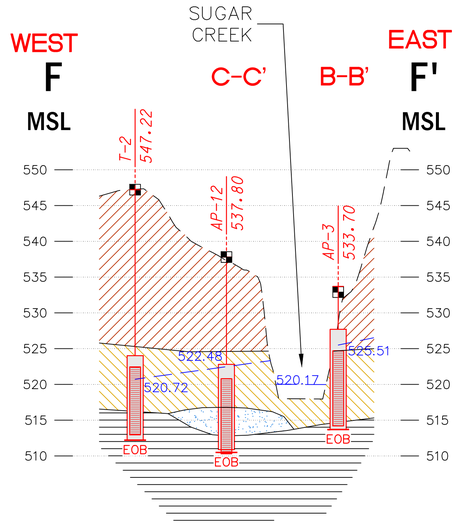
PROJECT ID: 240338/0014

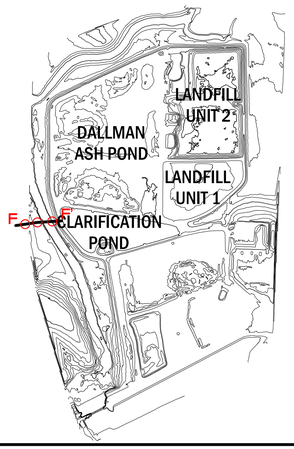
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E-E'

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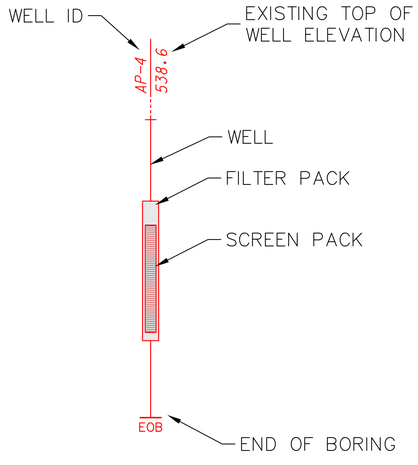


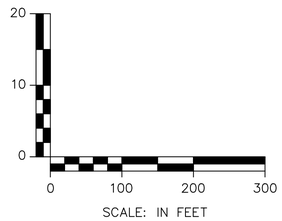
NOTES

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2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

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SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION F-F'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE:
SEPTEMBER 2025

PROJECT ID:
240338/0014

SHEET NUMBER:

F-F'

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SOUTH

G

MSL

D–D'

E–E'

I–I'

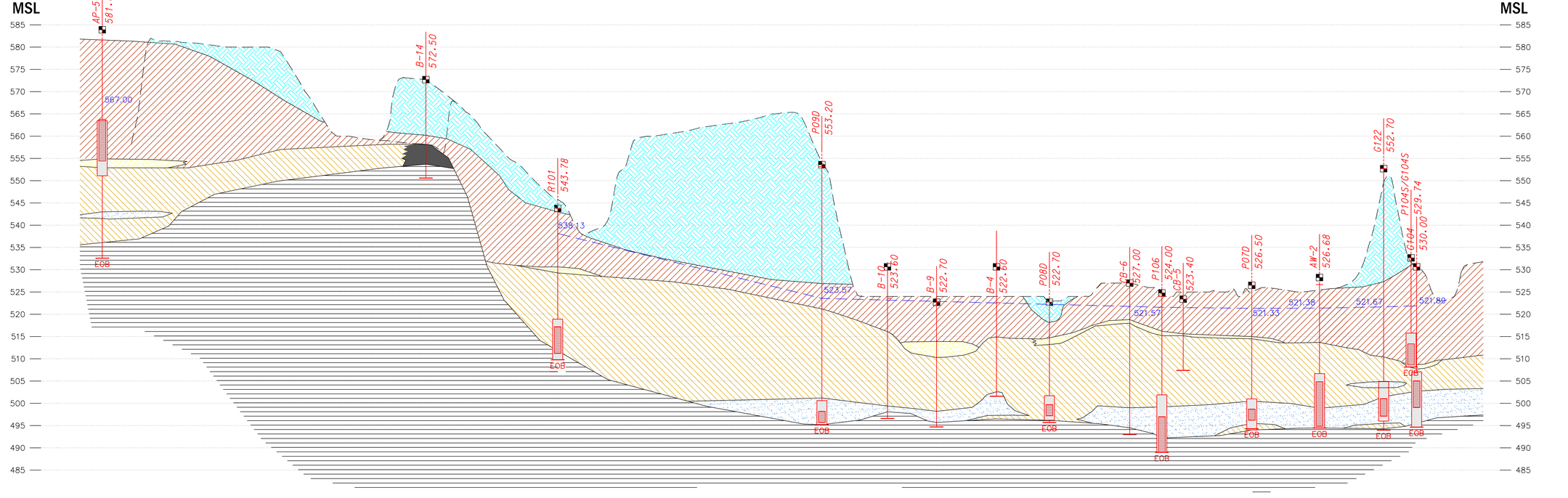
J–J'

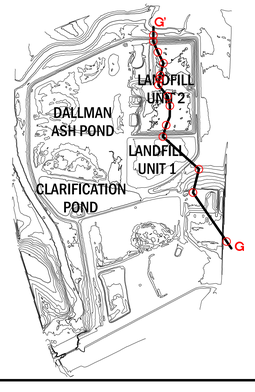
A–A'

G'

MSL

NORTH





NOTES

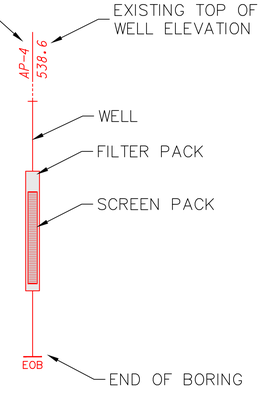
1. DEPTH AND THICKNESS OF SUBSURFACE STRATA WERE GENERALIZED FROM AND INTERPOLATED BETWEEN BORINGS. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE LOCATION OF THE BORING. SEE BORING LOGS FOR DETAILED DESCRIPTION.
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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

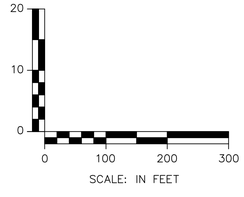
LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- COAL
- MONITORING WELL LOCATION

525.00 — GROUNDWATER ELEVATION (AUGUST 21, 2025)

BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

GEOLOGIC CROSS-SECTION G–G'

PLANS PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

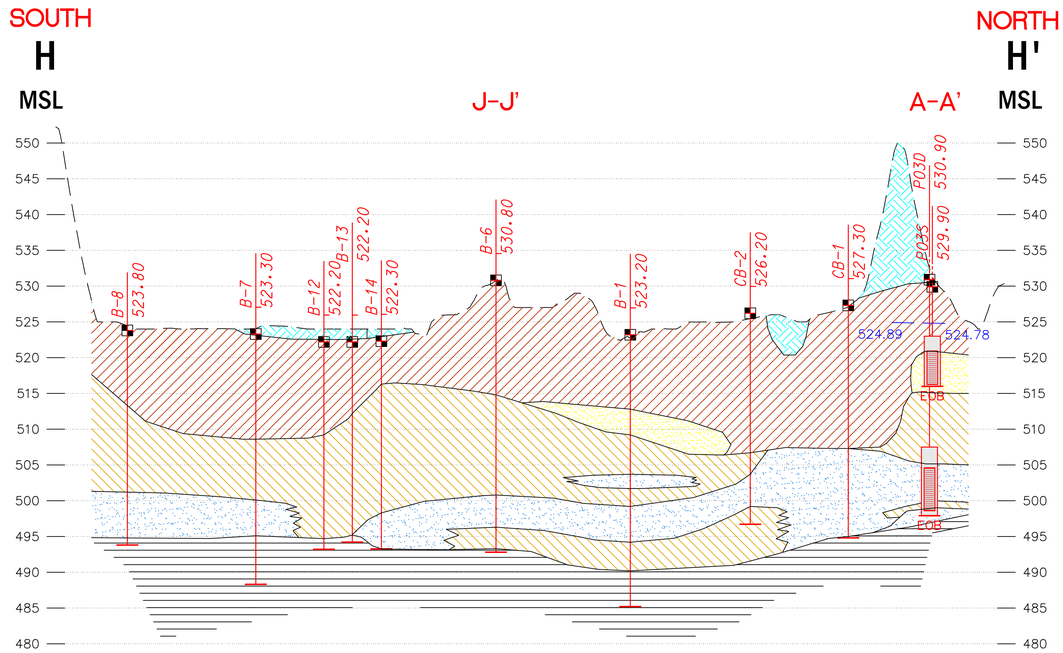
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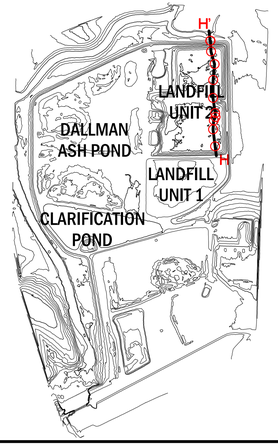
SHEET NUMBER:

G–G'

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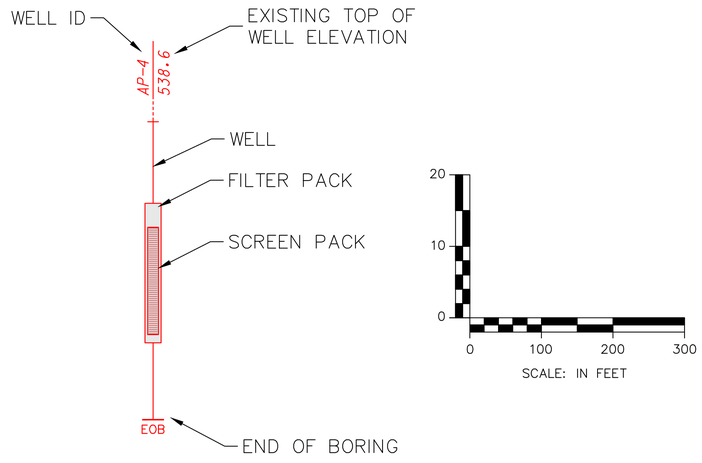


NOTES

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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

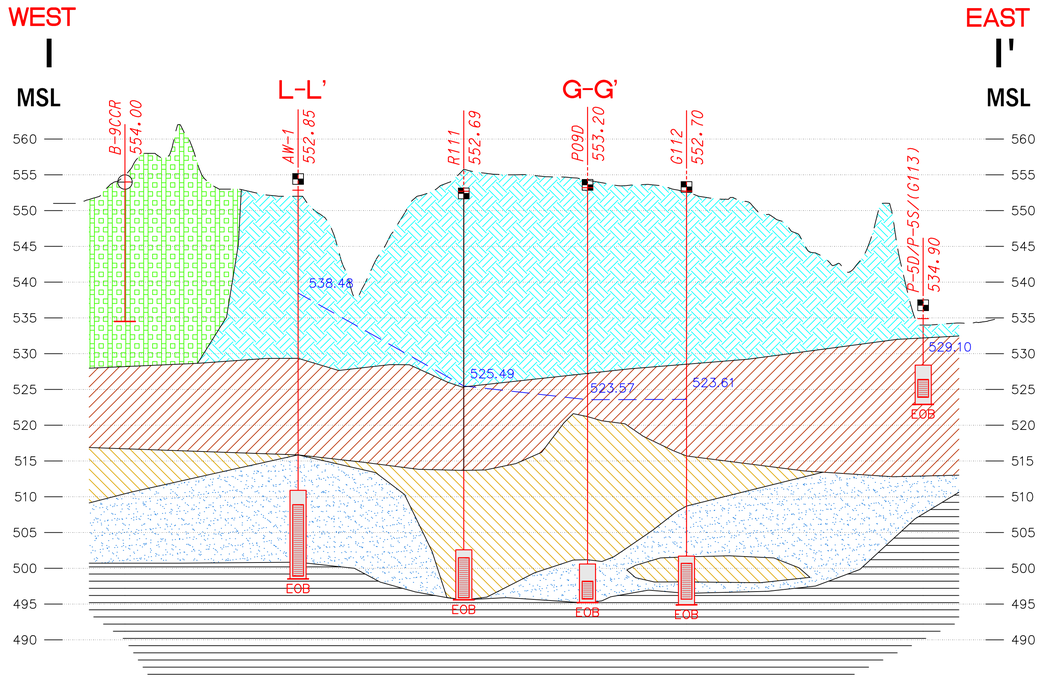
GEOLOGIC CROSS-SECTION H-H'

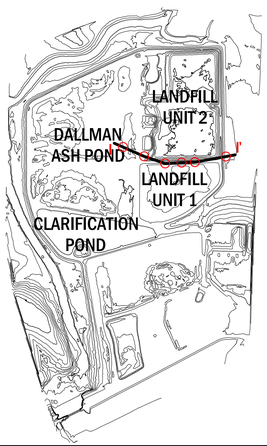
PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025
PROJECT ID: 240338/0014
SHEET NUMBER: H-H'

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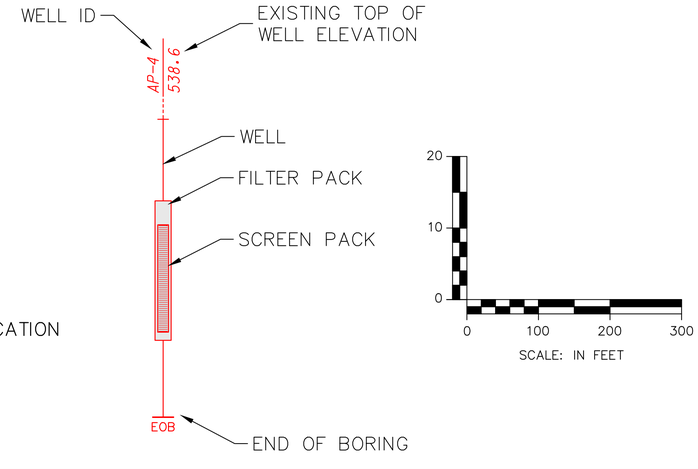


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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- 525.00 — GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE
- BASAL SAND
- SHALE
- CCR ASH
- BORING LOCATION
- MONITORING WELL LOCATION



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION I-I'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

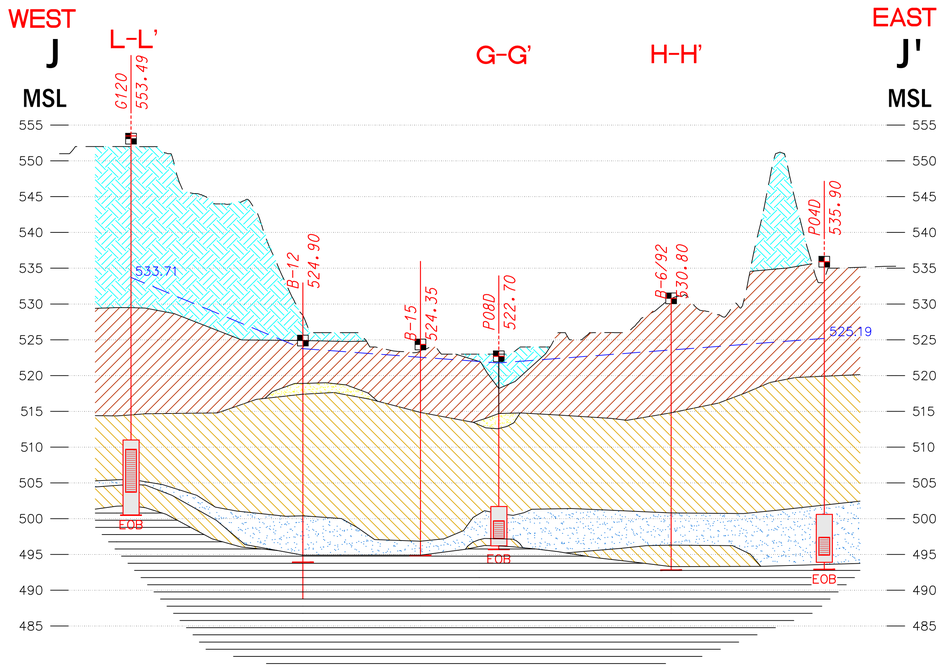
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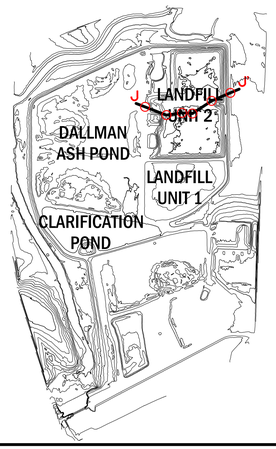
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I-I'

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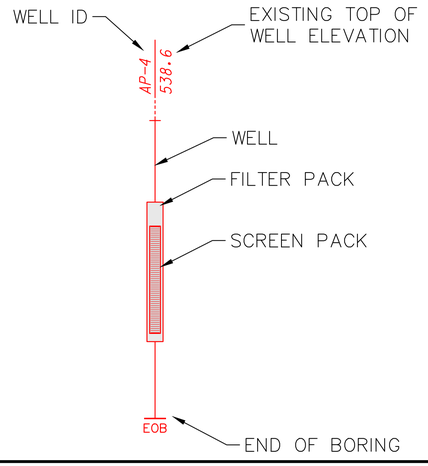


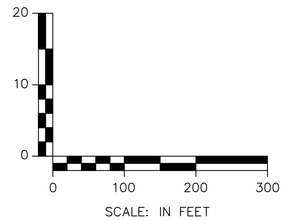
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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
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SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION J-J'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

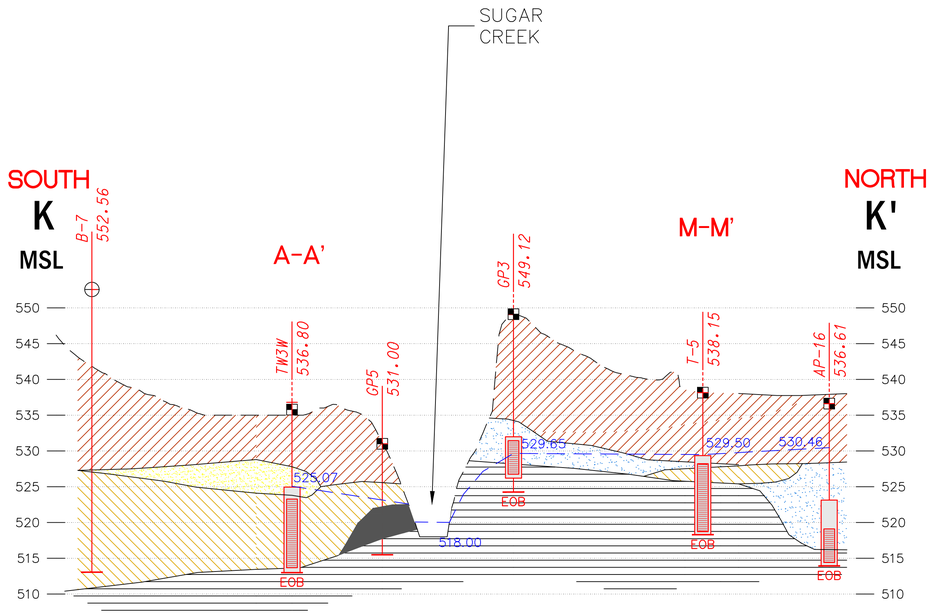
PROJECT ID: 240338/0014

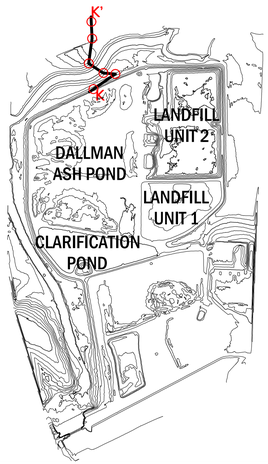
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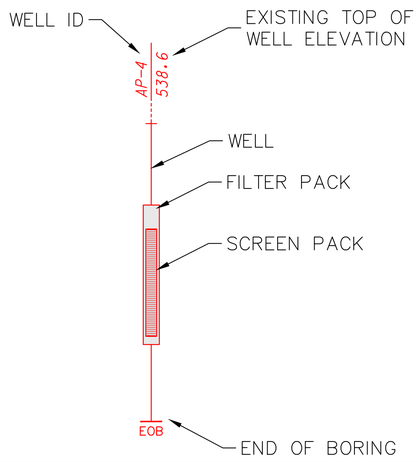


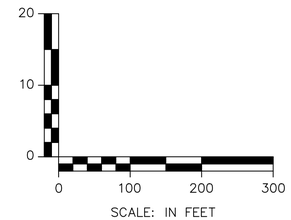
NOTES

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LEGEND

- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- COAL
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

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SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | CHECKED BY: MTH | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION K-K'

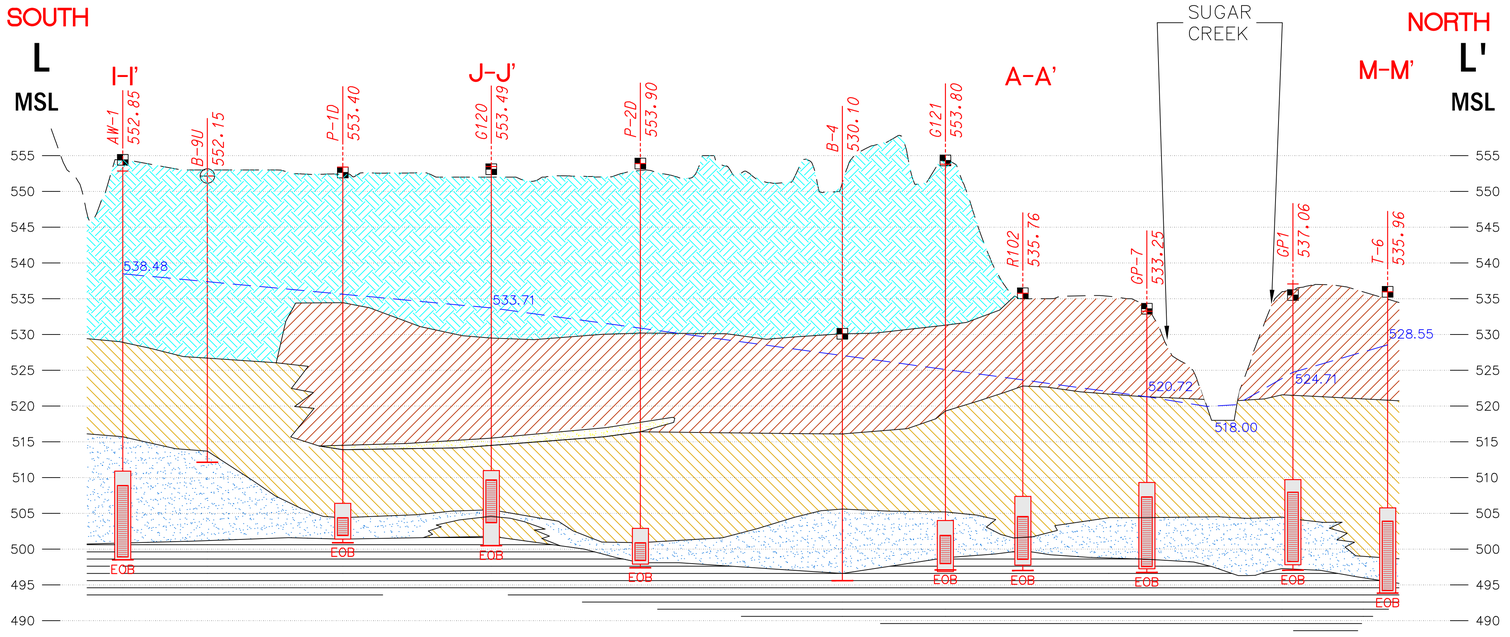
PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

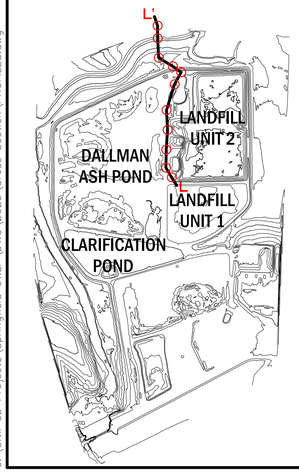
DATE: SEPTEMBER 2025
PROJECT ID: 240338/0014
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K-K'

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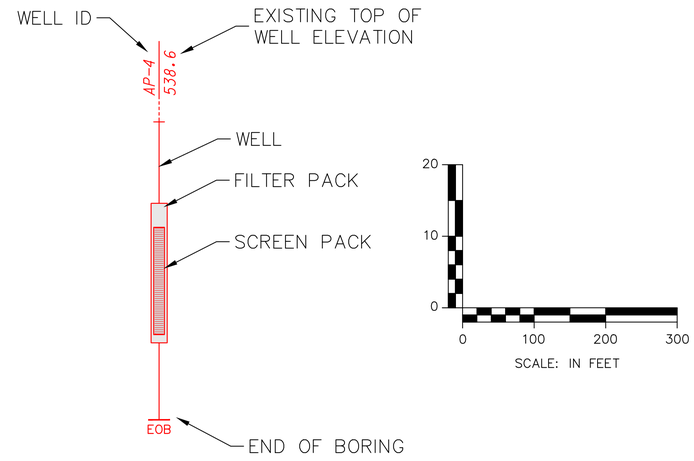


NOTES

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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALLOW SAND
- SHALE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

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SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION L-L'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

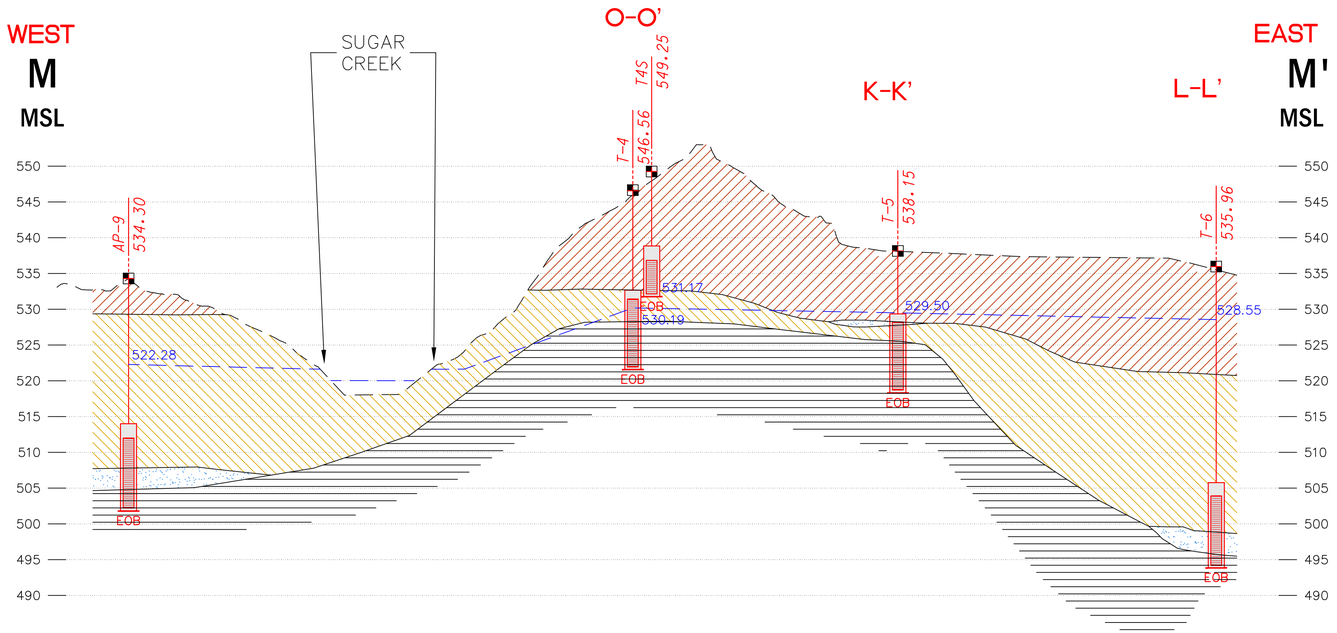
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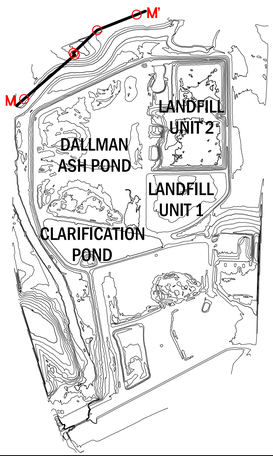
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L-L'

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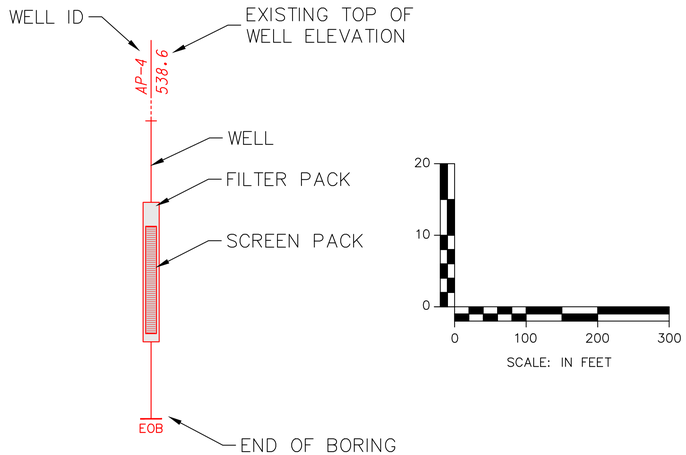


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LEGEND

- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 — GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

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3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION M-M'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

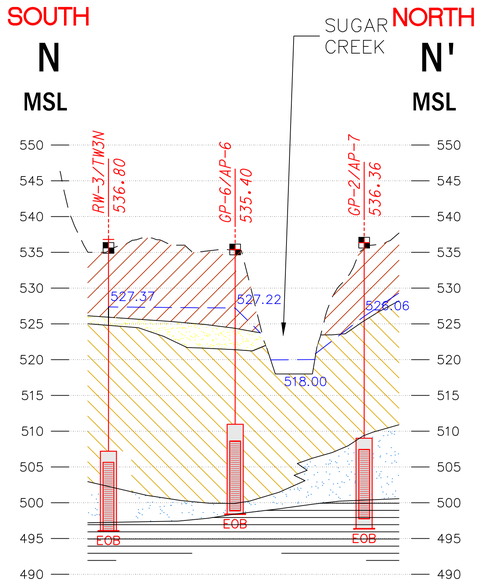
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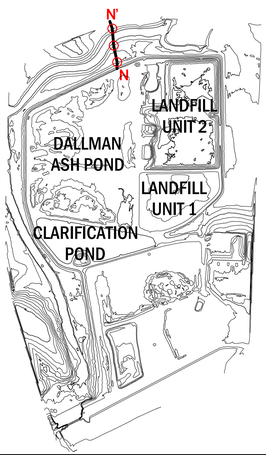
SHEET NUMBER:

M-M'

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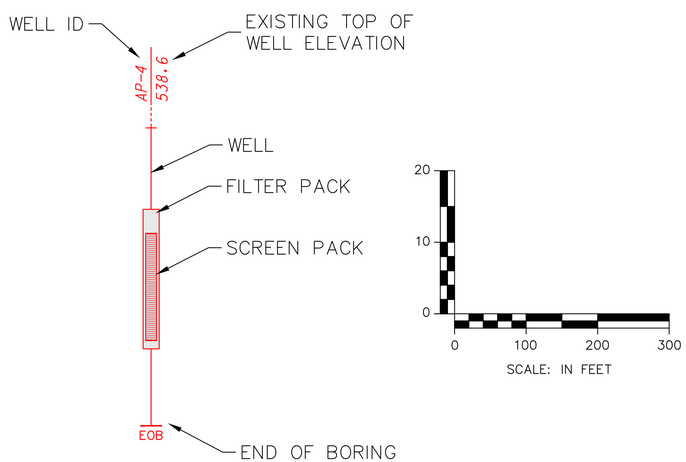


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LEGEND

- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

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PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION N-N'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

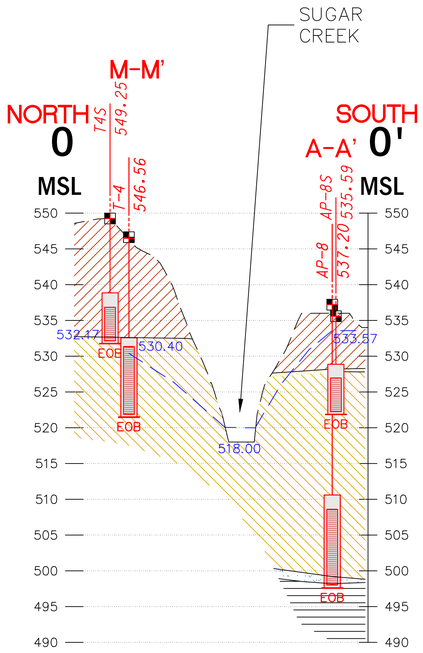
PROJECT ID: 240338/0014

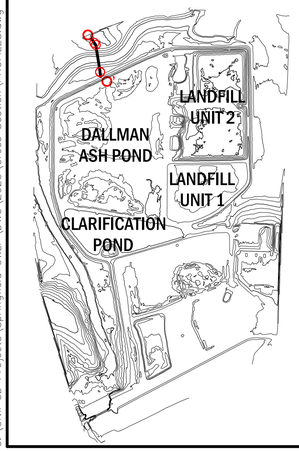
SHEET NUMBER:

N-N'

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Tab: NN Last Saved: September 23, 2025, by Mike Nguyen Plotted: Tuesday, September 23, 2025 10:00:09 AM
C:\Civil 3D Projects\Springfield CWLP\DWG\2025\Cross Section\PROFILES.dwg



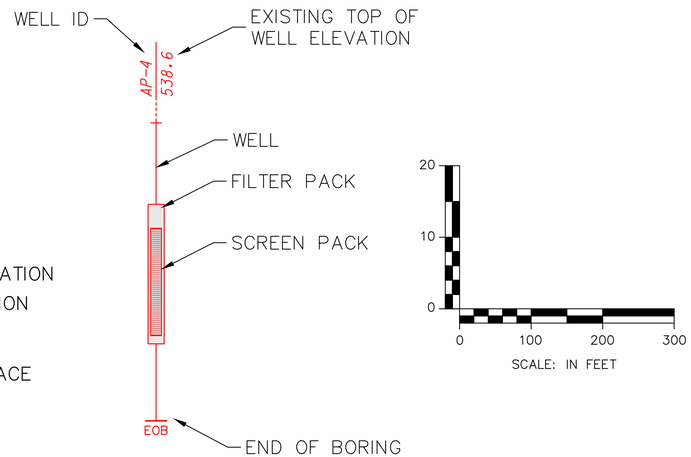


NOTES

1. DEPTH AND THICKNESS OF SUBSURFACE STRATA WERE GENERALIZED FROM AND INTERPOLATED BETWEEN BORINGS. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE LOCATION OF THE BORING. SEE BORING LOGS FOR DETAILED DESCRIPTION.
2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION O-O'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

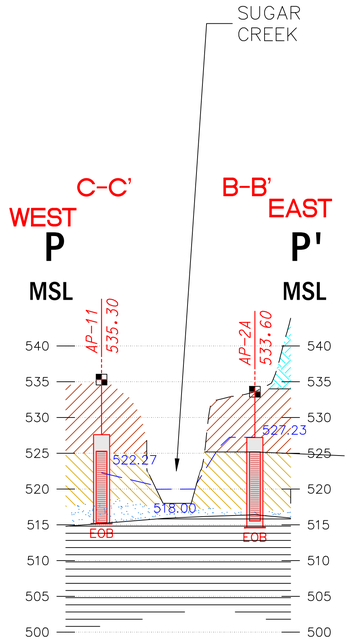
PROJECT ID: 240338/0014

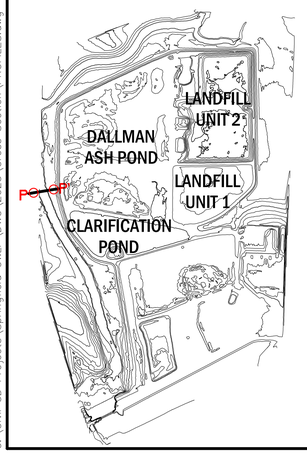
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O-O'

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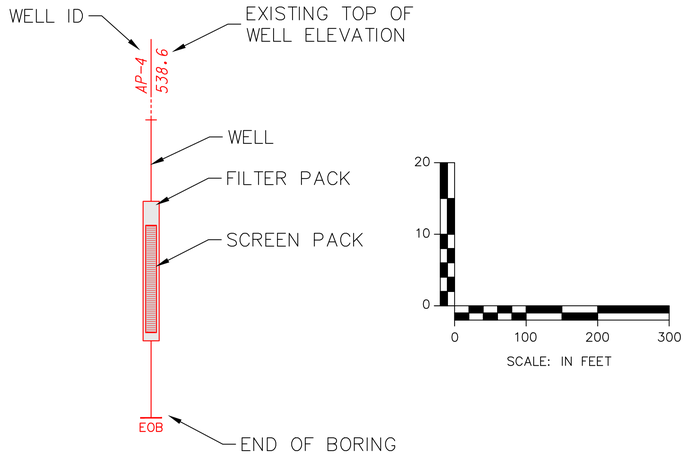


NOTES

1. DEPTH AND THICKNESS OF SUBSURFACE STRATA WERE GENERALIZED FROM AND INTERPOLATED BETWEEN BORINGS. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE LOCATION OF THE BORING. SEE BORING LOGS FOR DETAILED DESCRIPTION.
2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION P-P'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

PROJECT ID: 240338/0014

SHEET NUMBER:

P-P'

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APPENDIX G:
Laboratory Analytical Reports

Interior Impoundment Wells

May 28, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050235

Dear Eric Staley:

TEKLAB, INC received 4 samples on 5/2/2024 1:11:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050235
Report Date: 28-May-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	11
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050235

Client Project: CWLP Borings **Report Date:** 28-May-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 24050235

Client Project: CWLP Borings
Report Date: 28-May-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050235
Client Project: CWLP Borings
Report Date: 28-May-24

Cooler Receipt Temp: 2.9 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050235

Client Project: CWLP Borings

Report Date: 28-May-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050235
Client Project: CWLP Borings
Report Date: 28-May-24
Lab ID: 24050235-001
Client Sample ID: D2 33.5-35.5
Matrix: SOLID
Collection Date: 04/29/2024 10:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**158**	mg/L	10	05/09/2024 14:01	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.37	1.0	J	**0.37**	mg/L	10	05/10/2024 9:26	R347102
Elevated reporting limit due to matrix interference.									
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**8**	mg/L	1	05/09/2024 13:56	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.18**		1	05/06/2024 11:24	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.345**	mg/L	1	05/07/2024 17:27	222522
Barium	NELAP	0.0150	0.0450		**0.352**	mg/L	1	05/07/2024 17:27	222522
Beryllium	NELAP	0.0002	0.0010	J	**0.0002**	mg/L	1	05/07/2024 17:27	222522
Boron	NELAP	0.250	1.00		**4.05**	mg/L	1	05/07/2024 17:27	222522
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/07/2024 17:27	222522
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 17:27	222522
Cobalt	NELAP	0.0020	0.0060		**0.0130**	mg/L	1	05/07/2024 17:27	222522
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:27	222522
Molybdenum	NELAP	0.0037	0.0100		**1.27**	mg/L	1	05/07/2024 17:27	222522
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/07/2024 17:27	222522
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0125**	mg/L	5	05/09/2024 9:41	222522
Lithium	*	0.0015	0.0030		**0.0707**	mg/L	5	05/09/2024 9:41	222522
Thallium	NELAP	0.0010	0.0020	J	**0.0018**	mg/L	5	05/09/2024 9:41	222522
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 0:32	222519
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0390**	mg/L	1	05/08/2024 17:27	222567
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/07/2024 16:58	222567
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/07/2024 16:58	222567
Boron	NELAP	0.250	1.00		**3.05**	mg/L	1	05/07/2024 16:58	222567
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/07/2024 16:58	222567
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 16:58	222567
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/07/2024 16:58	222567
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 16:58	222567
Molybdenum	NELAP	0.0037	0.0100		**5.21**	mg/L	1	05/07/2024 16:58	222567
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/07/2024 16:58	222567
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0273**	mg/L	5	05/09/2024 10:45	222567
Lithium	*	0.0015	0.0030		**0.0065**	mg/L	5	05/09/2024 10:45	222567
Thallium	NELAP	0.0010	0.0020	J	**0.0015**	mg/L	5	05/09/2024 10:45	222567
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 17:08	223125
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896

Client: City Water, Light & Power
Work Order: 24050235
Client Project: CWLP Borings
Report Date: 28-May-24
Lab ID: 24050235-002
Client Sample ID: D1 36.5-38.5
Matrix: SOLID
Collection Date: 04/29/2024 15:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	6	10		**45**	mg/L	1	05/09/2024 14:04	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.19**	mg/L	1	05/09/2024 13:44	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4	J	**1**	mg/L	1	05/09/2024 14:04	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.64**		1	05/06/2024 11:30	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0528**	mg/L	1	05/07/2024 17:45	222522
Barium	NELAP	0.0150	0.0450		**0.514**	mg/L	1	05/07/2024 17:45	222522
Beryllium	NELAP	0.0002	0.0010		**0.0085**	mg/L	1	05/07/2024 17:45	222522
Boron	NELAP	0.250	1.00		**10.9**	mg/L	1	05/07/2024 17:45	222522
Cadmium	NELAP	0.0005	0.0020		**0.0706**	mg/L	1	05/07/2024 17:45	222522
Chromium	NELAP	0.0034	0.0100		**0.0707**	mg/L	1	05/07/2024 17:45	222522
Cobalt	NELAP	0.0020	0.0060		**0.0116**	mg/L	1	05/07/2024 17:45	222522
Lead	NELAP	0.0040	0.0075		**0.0102**	mg/L	1	05/08/2024 13:13	222522
Molybdenum	NELAP	0.0037	0.0100		**0.0554**	mg/L	1	05/07/2024 17:45	222522
Selenium	NELAP	0.017	0.050	J	**0.037**	mg/L	1	05/07/2024 17:45	222522
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0237**	mg/L	5	05/09/2024 9:36	222522
Lithium	*	0.0015	0.0030		**0.0367**	mg/L	5	05/09/2024 9:36	222522
Thallium	NELAP	0.0010	0.0020		**0.0268**	mg/L	5	05/08/2024 14:55	222522
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 0:39	222519
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0471**	mg/L	1	05/08/2024 17:23	222567
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/07/2024 17:03	222567
Beryllium	NELAP	0.0002	0.0010	J	**0.0002**	mg/L	1	05/07/2024 17:03	222567
Boron	NELAP	0.250	1.00		**2.94**	mg/L	1	05/07/2024 17:03	222567
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/07/2024 17:03	222567
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 17:03	222567
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/07/2024 17:03	222567
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:03	222567
Molybdenum	NELAP	0.0037	0.0100		**0.144**	mg/L	1	05/07/2024 17:03	222567
Selenium	NELAP	0.017	0.050	J	**0.021**	mg/L	1	05/07/2024 17:03	222567
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0078**	mg/L	5	05/08/2024 15:04	222567
Lithium	*	0.0015	0.0030		**0.0112**	mg/L	5	05/09/2024 10:24	222567
Thallium	NELAP	0.0010	0.0020	J	**0.0010**	mg/L	5	05/08/2024 15:04	222567
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 17:12	223125
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896

Client: City Water, Light & Power **Work Order:** 24050235

Client Project: CWLP Borings **Report Date:** 28-May-24

Lab ID: 24050235-003 **Client Sample ID:** D3 14.5-29.5

Matrix: SOLID **Collection Date:** 04/30/2024 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	6	10		**31**	mg/L	1	05/09/2024 14:28	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.11**	mg/L	1	05/09/2024 13:47	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**< 4**	mg/L	1	05/09/2024 14:28	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.38**		1	05/06/2024 11:33	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0155**	mg/L	1	05/08/2024 13:15	222522
Barium	NELAP	0.0150	0.0450		**0.373**	mg/L	1	05/07/2024 17:46	222522
Beryllium	NELAP	0.0002	0.0010		**0.0113**	mg/L	1	05/07/2024 17:46	222522
Boron	NELAP	0.250	1.00		**8.74**	mg/L	1	05/07/2024 17:46	222522
Cadmium	NELAP	0.0005	0.0020		**0.0475**	mg/L	1	05/07/2024 17:46	222522
Chromium	NELAP	0.0034	0.0100		**0.0438**	mg/L	1	05/07/2024 17:46	222522
Cobalt	NELAP	0.0020	0.0060	J	**0.0054**	mg/L	1	05/07/2024 17:46	222522
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:46	222522
Molybdenum	NELAP	0.0037	0.0100		**0.0415**	mg/L	1	05/07/2024 17:46	222522
Selenium	NELAP	0.017	0.050	J	**0.030**	mg/L	1	05/07/2024 17:46	222522
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0197**	mg/L	5	05/10/2024 7:34	222522
Lithium	*	0.0015	0.0030		**0.0100**	mg/L	5	05/09/2024 10:29	222522
Thallium	NELAP	0.0010	0.0020		**0.0185**	mg/L	5	05/08/2024 15:29	222522
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 0:42	222519
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0173**	mg/L	1	05/08/2024 17:29	222567
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/07/2024 17:04	222567
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/07/2024 17:04	222567
Boron	NELAP	0.250	1.00		**2.34**	mg/L	1	05/07/2024 17:04	222567
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/07/2024 17:04	222567
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 17:04	222567
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/07/2024 17:04	222567
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:04	222567
Molybdenum	NELAP	0.0037	0.0100		**0.0355**	mg/L	1	05/07/2024 17:04	222567
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/07/2024 17:04	222567
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0070**	mg/L	5	05/09/2024 11:07	222567
Lithium	*	0.0015	0.0030		**0.0034**	mg/L	5	05/09/2024 11:07	222567
Thallium	NELAP	0.0010	0.0020	J	**0.0017**	mg/L	5	05/09/2024 11:07	222567
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 17:14	223125

Client: City Water, Light & Power **Work Order:** 24050235

Client Project: CWLP Borings **Report Date:** 28-May-24

Lab ID: 24050235-004 **Client Sample ID:** D4 29.5-31.5

Matrix: SOLID **Collection Date:** 04/30/2024 15:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**102**	mg/L	10	05/09/2024 14:41	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.14**	mg/L	1	05/09/2024 13:49	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**11**	mg/L	1	05/09/2024 14:36	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**10.2**		1	05/06/2024 11:35	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0242**	mg/L	1	05/07/2024 17:49	222522
Barium	NELAP	0.0150	0.0450		**0.287**	mg/L	1	05/07/2024 17:49	222522
Beryllium	NELAP	0.0002	0.0010		**0.0012**	mg/L	1	05/07/2024 17:49	222522
Boron	NELAP	0.250	1.00		**6.25**	mg/L	1	05/07/2024 17:49	222522
Cadmium	NELAP	0.0005	0.0020		**0.0063**	mg/L	1	05/07/2024 17:49	222522
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 17:49	222522
Cobalt	NELAP	0.0020	0.0060		**0.0089**	mg/L	1	05/07/2024 17:49	222522
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:49	222522
Molybdenum	NELAP	0.0037	0.0100		**0.179**	mg/L	1	05/07/2024 17:49	222522
Selenium	NELAP	0.017	0.050	J	**0.022**	mg/L	1	05/07/2024 17:49	222522
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0376**	mg/L	5	05/09/2024 10:18	222522
Lithium	*	0.0015	0.0030		**0.0374**	mg/L	5	05/09/2024 10:18	222522
Thallium	NELAP	0.0010	0.0020		**0.0243**	mg/L	5	05/08/2024 15:00	222522
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/19/2024 16:25	223122
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0114**	mg/L	1	05/08/2024 17:31	222567
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/07/2024 17:05	222567
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/07/2024 17:05	222567
Boron	NELAP	0.250	1.00		**2.77**	mg/L	1	05/07/2024 17:05	222567
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/07/2024 17:05	222567
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 17:05	222567
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/07/2024 17:05	222567
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:05	222567
Molybdenum	NELAP	0.0037	0.0100		**0.134**	mg/L	1	05/07/2024 17:05	222567
Selenium	NELAP	0.017	0.050	J	**0.021**	mg/L	1	05/07/2024 17:05	222567
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0240**	mg/L	5	05/09/2024 11:44	222567
Lithium	*	0.0015	0.0030		**0.0059**	mg/L	5	05/09/2024 11:44	222567
Thallium	NELAP	0.0010	0.0020	J	**0.0013**	mg/L	5	05/08/2024 16:14	222567
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 17:21	223125
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050235
Report Date: 28-May-24

Carrier: Paul Reeves
Received By: NR

Completed by: Amber Dilallo
On: 03-May-24

Reviewed by: Ellie Hopkins
On: 03-May-24

Pages to follow: Chain of custody 1 Extra pages included 14

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 2.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☐	No ☑		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	NA ☑
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Samples requiring pH should be analyzed as soon as possible after collection. Samples submitted for pH analysis are analyzed as soon as practicable upon arrival at the laboratory. - amberdilallo - 5/3/2024 10:02:55 AM

Limited volume for D3 sample; additional volume for Radium-226 and -228 was submitted on WO#24050346. SAH 5/28/24

Print PDF

CHAIN OF CUSTODY

Pg __ of __ Workorder # 24050235

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 2.9 °C #7
Preserved in: [ ] LAB [ ] FIELD
FOR LAB USE ONLY
LAB NOTES:

TEKLAB

Client Comments:
TCLP & SPLP for all metals

Courier

email results to C. Grey and datamanagement@andrews-eng.com

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No
Are these samples known to be hazardous? [ ] Yes [ ] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

PROJECT NAME/NUMBER: CWLP Borings

SAMPLE COLLECTOR'S NAME: S. Van Hook

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Rad 226 and 228	TCLP & SPLP Sb, As, Ba, Be	TCLP & SPLP B, Cd, Cr, Co, Pb, Se, Tl	TCLP & SPLP Li, Mo	TCLP & SPLP Hg	Neutral Leach Cl, F+, SO4	pH
24050235-001	D2 33.5-35.5	4/29/24 10AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
002	D1 36.5-38.5	4/29/24 3:30PM	Soil	2									✓	✓	✓	✓	✓	✓	✓
003	D3 14.5-29.5	4/30/24 10:15am	Soil	2									✓	✓	✓	✓	✓	✓	✓
004	D4 29.5-31.5	4/30/24 3:00PM	Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Steve Van Hook	5/1/24 7:00pm	ASI Secure Storage	5/1/24 7:00P
ASI Secure Storage CMay	5/2/24 7:40A	Paul Mix	5.2.24 0740
Paul Mix	5.2.24 1311	Mitch Kleeb	5/2/24 1311

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

UM 5/2

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

May 23, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050235

Dear Shelly Hennessy:

Order No.: 24050488

Summit Environmental Technologies, Inc. received 3 sample(s) on 5/7/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **24050488**
Date: **5/23/2024**

CLIENT: TEKLAB Inc,
Project: 24050235

WorkOrder Narrative:
24050488: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050488**
Date: **5/23/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **24050488**

23-May-24

CLIENT: TEKLAB Inc,
Project: 24050235

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050488-001	24050235-001		4/29/2024 10:00:00 AM	5/7/2024 11:30:00 AM	Solid
24050488-002	24050235-002		4/29/2024 3:30:00 PM	5/7/2024 11:30:00 AM	Solid
24050488-003	24050235-004		4/30/2024 3:00:00 PM	5/7/2024 11:30:00 AM	Solid

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **24050488**

23-May-24

Client: TEKLAB Inc,

Project: 24050235

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050488-001A	24050235-001	4/29/2024 10:00:00 AM	Solid	Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050488-002A	24050235-002	4/29/2024 3:30:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050488-003A	24050235-004	4/30/2024 3:00:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050488**

Date Reported: **5/23/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/29/2024 10:00:00 AM

Project: 24050235

Lab ID: 24050488-001

Matrix: SOLID

Client Sample ID: 24050235-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**SW9315** **E903-904**		Analyst: **SMZ**
RADIUM-226 ANALYSIS (9315)							
Radium-226	ND	1.00		pCi/g	± 0.100	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RAD226/228					**SW9320** **E903-904**		Analyst: **SMZ**
RADIUM-228 ANALYSIS (9320)							
Radium-228	ND	2.00		pCi/g	± 0.330	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050488**

Date Reported: **5/23/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/29/2024 3:30:00 PM

Project: 24050235

Lab ID: 24050488-002

Matrix: SOLID

Client Sample ID: 24050235-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**SW9315** **E903-904**		Analyst: **SMZ**
RADIUM-226 ANALYSIS (9315)							
Radium-226	ND	1.00		pCi/g	± 0.130	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RAD226/228					**SW9320** **E903-904**		Analyst: **SMZ**
RADIUM-228 ANALYSIS (9320)							
Radium-228	ND	2.00		pCi/g	± 0.270	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050488**

Date Reported: **5/23/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 3:00:00 PM

Project: 24050235

Lab ID: 24050488-003

Matrix: SOLID

Client Sample ID: 24050235-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**SW9315** **E903-904**		Analyst: **SMZ**
RADIUM-226 ANALYSIS (9315)							
Radium-226	ND	1.00		pCi/g	± 0.160	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RAD226/228					**SW9320** **E903-904**		Analyst: **SMZ**
RADIUM-228 ANALYSIS (9320)							
Radium-228	ND	2.00		pCi/g	± 0.300	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050488**

23-May-24

Client: TEKLAB Inc,
Project: 24050235 **BatchID:** **75515**

Sample ID: **MB-75515**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **PBS**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	2.00									
Yield	1.00										

Sample ID: **LCS-75515**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **LCSS**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043899**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.62	2.00	5.000	0	72.4	50	130				

Sample ID: **LCSD-75515**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **LCSS02**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043900**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.01	2.00	5.000	0	60.2	50	130	3.620	18.4	20	

Sample ID: **24041932-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **BatchQC**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050488**

23-May-24

Client: TEKLAB Inc,

Project: 24050235 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186135**

Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9320** **E903-904** Analysis Date: **5/22/2024** SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	8.89	2.00	10.00	0	88.9	0	0	6.490	31.2	20	RS
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050488**

23-May-24

Client: TEKLAB Inc,
Project: 24050235 **BatchID:** **75515**

Sample ID: **MB-75515**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **PBS**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044082**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75515**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **LCSS**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044083**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.20	1.00	5.000	0	124	70	130				

Sample ID: **LCSD-75515**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **LCSS02**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.76	1.00	5.000	0	115	60	140	6.200	7.36	40	

Sample ID: **24041932-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **BatchQC**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050488**

23-May-24

Client: TEKLAB Inc,
Project: 24050235 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.51	1.00						6.960	6.68	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

W.8-0.2 Cooler Temp: 26.6°C Sampler: Client QC Level: 2

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Fedex, Cooler

Project# 24050235

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36226
Phone: (618) 344-1004 ext. 36

24050488

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228
	24050235-001	4/29/24 1000	Unpres	Soil	✔ 38
	24050235-002	4/29/24 1530	Unpres	Soil	✔ 34
	24050235-004	4/30/24 1500	Unpres	Soil	✔ 38
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	

CPM

*Relinquished By	Date/Time	Received By	Date/Time
	5/3/24 1700		5/7/24, 1130

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights.

SubCocRevA

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050488 RcptNo: 1

Logged by:	Christina N. Gemma	5/7/2024 11:30:00 AM	C. Gemma
Completed By:	Christina N. Gemma	5/7/2024 5:25:54 PM	C. Gemma
Reviewed By:	Jennifer Woolf	5/8/2024 11:11:39 AM	Jennifer Woolf

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date: Signed By:			
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	20.6	Good	Not Present			

June 05, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050346

Dear Eric Staley:

TEKLAB, INC received 10 samples on 5/3/2024 1:50:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050346
Report Date: 05-Jun-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	17
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050346

Client Project: CWLP Borings **Report Date:** 05-Jun-24

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 24050346

Client Project: CWLP Borings
Report Date: 05-Jun-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24

Cooler Receipt Temp: 3.3 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050346

Client Project: CWLP Borings

Report Date: 05-Jun-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-001
Client Sample ID: L4 10ft-15.3ft
Matrix: SOLID
Collection Date: 05/02/2024 8:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**149**	mg/L	10	05/09/2024 14:49	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.42**	mg/L	1	05/09/2024 13:52	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**25**	mg/L	1	05/09/2024 14:44	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.49**		1	05/06/2024 11:10	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:00	222742
Barium	NELAP	0.0150	0.0450		**1.04**	mg/L	1	05/10/2024 14:00	222742
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:00	222742
Boron	NELAP	0.25	1.0	J	**0.59**	mg/L	1	05/10/2024 14:00	222742
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:00	222742
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:00	222742
Cobalt	NELAP	0.0020	0.0060		**0.0077**	mg/L	1	05/10/2024 14:00	222742
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:00	222742
Molybdenum	NELAP	0.0037	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:00	222742
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:00	222742
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0012**	mg/L	5	05/14/2024 9:03	222742
Lithium	*	0.0015	0.0030		**0.0034**	mg/L	5	05/14/2024 9:03	222742
Thallium	NELAP	0.0010	0.0020	J	**0.0015**	mg/L	5	05/15/2024 12:16	222742
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/16/2024 7:17	222743
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:13	222744
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/10/2024 14:13	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:13	222744
Boron	NELAP	0.250	1.00		**< 1.00**	mg/L	1	05/10/2024 14:13	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:13	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:13	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:13	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:13	222744
Molybdenum	NELAP	0.0037	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:13	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:13	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010	J	**0.0009**	mg/L	5	05/14/2024 12:23	222744
Lithium	*	0.0015	0.0030		**< 0.0030**	mg/L	5	05/14/2024 12:23	222744
Thallium	NELAP	0.0010	0.0020	J	**0.0011**	mg/L	5	05/15/2024 14:31	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:27	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-002
Client Sample ID: L3 29.5-32.7
Matrix: SOLID
Collection Date: 05/02/2024 11:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	307	500		**574**	mg/L	50	05/10/2024 13:21	R347112
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.20**	mg/L	1	05/09/2024 13:53	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**13**	mg/L	1	05/09/2024 14:52	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.79**		1	05/06/2024 11:12	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0337**	mg/L	1	05/10/2024 14:01	222742
Barium	NELAP	0.0150	0.0450		**0.470**	mg/L	1	05/10/2024 14:01	222742
Beryllium	NELAP	0.0002	0.0010		**0.0054**	mg/L	1	05/10/2024 14:01	222742
Boron	NELAP	0.250	1.00		**1.23**	mg/L	1	05/10/2024 14:01	222742
Cadmium	NELAP	0.0005	0.0020		**0.0397**	mg/L	1	05/10/2024 14:01	222742
Chromium	NELAP	0.0034	0.0100		**0.0185**	mg/L	1	05/10/2024 14:01	222742
Cobalt	NELAP	0.0020	0.0060		**0.0161**	mg/L	1	05/10/2024 14:01	222742
Lead	NELAP	0.0040	0.0075		**0.0247**	mg/L	1	05/10/2024 14:01	222742
Molybdenum	NELAP	0.0037	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:01	222742
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:01	222742
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0024**	mg/L	5	05/14/2024 9:57	222742
Lithium	*	0.0015	0.0030		**0.0061**	mg/L	5	05/14/2024 9:57	222742
Thallium	NELAP	0.0010	0.0020		**0.0060**	mg/L	5	05/15/2024 12:31	222742
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/16/2024 7:20	222743
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/16/2024 17:50	222744
Barium	NELAP	0.015	0.045	J	**0.025**	mg/L	1	05/10/2024 14:14	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:14	222744
Boron	NELAP	0.25	1.0	J	**0.60**	mg/L	1	05/10/2024 14:14	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:14	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:14	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:14	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:14	222744
Molybdenum	NELAP	0.0037	0.0100		**0.0169**	mg/L	1	05/10/2024 14:14	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:14	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0037**	mg/L	5	05/14/2024 12:28	222744
Lithium	*	0.0015	0.0030	J	**0.0030**	mg/L	5	05/14/2024 12:28	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 14:36	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:29	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/31/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/31/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-003
Client Sample ID: L3 19.5-21.5
Matrix: SOLID
Collection Date: 05/02/2024 11:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**224**	mg/L	10	05/09/2024 15:05	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.20**	mg/L	1	05/09/2024 13:56	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4	J	**4**	mg/L	1	05/09/2024 15:00	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.14**		1	05/06/2024 11:14	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0279**	mg/L	1	05/16/2024 17:49	222740
Barium	NELAP	0.0150	0.0450		**0.635**	mg/L	1	05/10/2024 14:56	222740
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:56	222740
Boron	NELAP	0.25	1.0	J	**0.69**	mg/L	1	05/10/2024 14:56	222740
Cadmium	NELAP	0.0005	0.0020		**0.0154**	mg/L	1	05/10/2024 14:56	222740
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:56	222740
Cobalt	NELAP	0.0020	0.0060		**0.0065**	mg/L	1	05/14/2024 12:11	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:56	222740
Molybdenum	NELAP	0.0037	0.0100		**0.0307**	mg/L	1	05/10/2024 14:56	222740
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:56	222740
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0066**	mg/L	5	05/14/2024 9:42	222740
Lithium	*	0.0015	0.0030		**0.0053**	mg/L	5	05/14/2024 9:42	222740
Thallium	NELAP	0.0010	0.0020		**0.0086**	mg/L	5	05/15/2024 13:21	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**0.00028**	mg/L	1	05/14/2024 14:21	222612
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0195**	mg/L	1	05/10/2024 14:15	222744
Barium	NELAP	0.015	0.045	J	**0.028**	mg/L	1	05/10/2024 14:15	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:15	222744
Boron	NELAP	0.25	1.0	J	**0.32**	mg/L	1	05/10/2024 14:15	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:15	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:15	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:15	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:15	222744
Molybdenum	NELAP	0.0037	0.0100		**0.0111**	mg/L	1	05/10/2024 14:15	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:15	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0054**	mg/L	5	05/14/2024 12:33	222744
Lithium	*	0.0015	0.0030	J	**0.0015**	mg/L	5	05/14/2024 12:33	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 14:41	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:36	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power **Work Order:** 24050346

Client Project: CWLP Borings **Report Date:** 05-Jun-24

Lab ID: 24050346-004 **Client Sample ID:** L1 24.5-31.5

Matrix: SOLID **Collection Date:** 05/02/2024 15:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**139**	mg/L	10	05/09/2024 15:29	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.21**	mg/L	1	05/10/2024 9:32	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**5**	mg/L	1	05/09/2024 15:24	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.14**		1	05/06/2024 11:15	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:56	222740
Barium	NELAP	0.0150	0.0450		**0.172**	mg/L	1	05/10/2024 14:56	222740
Beryllium	NELAP	0.0002	0.0010		**0.0015**	mg/L	1	05/10/2024 14:56	222740
Boron	NELAP	0.250	1.00		**17.2**	mg/L	1	05/10/2024 14:56	222740
Cadmium	NELAP	0.0005	0.0020		**0.0045**	mg/L	1	05/10/2024 14:56	222740
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:56	222740
Cobalt	NELAP	0.0020	0.0060	J	**0.0033**	mg/L	1	05/10/2024 14:56	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:56	222740
Molybdenum	NELAP	0.0037	0.0100		**0.0118**	mg/L	1	05/10/2024 14:56	222740
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:56	222740
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0064**	mg/L	5	05/14/2024 9:47	222740
Lithium	*	0.0015	0.0030		**0.0087**	mg/L	5	05/14/2024 9:47	222740
Thallium	NELAP	0.0010	0.0020		**0.0041**	mg/L	5	05/15/2024 13:26	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 16:51	222741
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:16	222744
Barium	NELAP	0.015	0.045	J	**0.026**	mg/L	1	05/10/2024 14:16	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:16	222744
Boron	NELAP	0.250	1.00		**2.69**	mg/L	1	05/10/2024 14:16	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:16	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:16	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:16	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:16	222744
Molybdenum	NELAP	0.0037	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:16	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:16	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0012**	mg/L	5	05/14/2024 12:39	222744
Lithium	*	0.0015	0.0030	J	**0.0030**	mg/L	5	05/14/2024 12:39	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 14:45	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:43	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power **Work Order:** 24050346

Client Project: CWLP Borings **Report Date:** 05-Jun-24

Lab ID: 24050346-005 **Client Sample ID:** L1 14.5-21.5

Matrix: SOLID **Collection Date:** 05/02/2024 14:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**103**	mg/L	10	05/09/2024 15:37	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.37**	mg/L	1	05/10/2024 9:35	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4	J	**1**	mg/L	1	05/09/2024 15:32	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.13**		1	05/06/2024 11:16	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:57	222740
Barium	NELAP	0.0150	0.0450		**0.345**	mg/L	1	05/10/2024 14:57	222740
Beryllium	NELAP	0.0002	0.0010	J	**0.0007**	mg/L	1	05/10/2024 14:57	222740
Boron	NELAP	0.25	1.0	J	**0.32**	mg/L	1	05/10/2024 14:57	222740
Cadmium	NELAP	0.0005	0.0020		**0.0045**	mg/L	1	05/10/2024 14:57	222740
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:57	222740
Cobalt	NELAP	0.0020	0.0060	J	**0.0054**	mg/L	1	05/10/2024 14:57	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:57	222740
Molybdenum	NELAP	0.0037	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:57	222740
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:57	222740
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0019**	mg/L	5	05/14/2024 10:18	222740
Lithium	*	0.0015	0.0030		**0.0036**	mg/L	5	05/14/2024 10:18	222740
Thallium	NELAP	0.0010	0.0020		**0.0023**	mg/L	5	05/15/2024 13:36	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 16:54	222741
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0276**	mg/L	1	05/10/2024 14:16	222744
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/10/2024 14:16	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:16	222744
Boron	NELAP	0.250	1.00		**< 1.00**	mg/L	1	05/10/2024 14:16	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:16	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:16	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:16	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:16	222744
Molybdenum	NELAP	0.0037	0.0100		**0.0145**	mg/L	1	05/10/2024 14:16	222744
Selenium	NELAP	0.017	0.050	J	**0.019**	mg/L	1	05/10/2024 14:16	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0114**	mg/L	5	05/14/2024 13:05	222744
Lithium	*	0.0015	0.0030		**< 0.0030**	mg/L	5	05/14/2024 13:05	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 15:05	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:45	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-006
Client Sample ID: D3 9.5-11.5
Matrix: SOLID
Collection Date: 04/30/2024 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-007
Client Sample ID: D3 4.5-6.5
Matrix: SOLID
Collection Date: 04/30/2024 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	6	10		**45**	mg/L	1	05/09/2024 15:42	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10	J	**0.08**	mg/L	1	05/10/2024 9:36	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**< 4**	mg/L	1	05/09/2024 15:42	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.93**		1	05/06/2024 11:18	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:59	222740
Barium	NELAP	0.0150	0.0450		**0.492**	mg/L	1	05/10/2024 14:59	222740
Beryllium	NELAP	0.0002	0.0010		**0.0114**	mg/L	1	05/10/2024 14:59	222740
Boron	NELAP	0.500	2.00		**25.9**	mg/L	2	05/13/2024 11:33	222740
Cadmium	NELAP	0.0005	0.0020		**0.0302**	mg/L	1	05/10/2024 14:59	222740
Chromium	NELAP	0.0034	0.0100		**0.0692**	mg/L	1	05/10/2024 14:59	222740
Cobalt	NELAP	0.0020	0.0060		**0.0118**	mg/L	1	05/10/2024 14:59	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:59	222740
Molybdenum	NELAP	0.0037	0.0100		**0.0375**	mg/L	1	05/10/2024 14:59	222740
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:59	222740
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0178**	mg/L	5	05/14/2024 9:52	222740
Lithium	*	0.0015	0.0030		**0.0131**	mg/L	5	05/14/2024 9:52	222740
Thallium	NELAP	0.0010	0.0020		**0.0252**	mg/L	5	05/15/2024 13:31	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 16:56	222741
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/16/2024 17:50	222744
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/10/2024 14:24	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:24	222744
Boron	NELAP	0.250	1.00		**2.65**	mg/L	1	05/10/2024 14:24	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:24	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:24	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:24	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:24	222744
Molybdenum	NELAP	0.0037	0.0100		**0.0138**	mg/L	1	05/10/2024 14:24	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:24	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0029**	mg/L	5	05/14/2024 12:44	222744
Lithium	*	0.0015	0.0030		**0.0033**	mg/L	5	05/14/2024 12:44	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 14:50	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:47	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-008
Client Sample ID: D1 19.5-21.5
Matrix: SOLID
Collection Date: 04/29/2024 15:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	31	50		**65**	mg/L	5	05/10/2024 13:23	R347112
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.13**	mg/L	1	05/10/2024 9:39	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4	J	**1**	mg/L	1	05/09/2024 15:50	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**10.0**		1	05/06/2024 11:20	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 15:06	222740
Barium	NELAP	0.0150	0.0450		**0.358**	mg/L	1	05/10/2024 15:06	222740
Beryllium	NELAP	0.0002	0.0010		**0.0145**	mg/L	1	05/10/2024 15:06	222740
Boron	NELAP	0.500	2.00		**26.6**	mg/L	2	05/13/2024 11:33	222740
Cadmium	NELAP	0.0005	0.0020		**0.0293**	mg/L	1	05/10/2024 15:06	222740
Chromium	NELAP	0.0034	0.0100		**0.105**	mg/L	1	05/10/2024 15:06	222740
Cobalt	NELAP	0.0020	0.0060		**0.0145**	mg/L	1	05/10/2024 15:06	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 15:06	222740
Molybdenum	NELAP	0.0037	0.0100		**0.0402**	mg/L	1	05/10/2024 15:06	222740
Selenium	NELAP	0.017	0.050	J	**0.017**	mg/L	1	05/10/2024 15:06	222740
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0170**	mg/L	5	05/14/2024 11:46	222740
Lithium	*	0.0015	0.0030		**0.0112**	mg/L	5	05/14/2024 11:46	222740
Thallium	NELAP	0.0010	0.0020		**0.0229**	mg/L	5	05/15/2024 14:26	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 17:07	222741
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:25	222744
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/10/2024 14:25	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:25	222744
Boron	NELAP	0.250	1.00		**5.11**	mg/L	1	05/10/2024 14:25	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:25	222744
Chromium	NELAP	0.0034	0.010	J	**0.0049**	mg/L	1	05/10/2024 14:25	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:25	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:25	222744
Molybdenum	NELAP	0.0037	0.0100		**0.216**	mg/L	1	05/10/2024 14:25	222744
Selenium	NELAP	0.017	0.050	J	**0.030**	mg/L	1	05/10/2024 14:25	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0035**	mg/L	5	05/14/2024 12:49	222744
Lithium	*	0.0015	0.0030		**0.0033**	mg/L	5	05/14/2024 12:49	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 14:55	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:49	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-009
Client Sample ID: D2 19.5-21.5
Matrix: SOLID
Collection Date: 04/29/2024 9:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**226**	mg/L	10	05/09/2024 16:20	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.20**	mg/L	1	05/10/2024 9:42	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**7**	mg/L	1	05/09/2024 16:14	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.25**		1	05/06/2024 11:21	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0505**	mg/L	1	05/10/2024 14:03	222742
Barium	NELAP	0.0150	0.0450		**0.556**	mg/L	1	05/10/2024 14:03	222742
Beryllium	NELAP	0.0002	0.0010		**0.0231**	mg/L	1	05/10/2024 14:03	222742
Boron	NELAP	0.250	1.00		**9.63**	mg/L	1	05/10/2024 14:03	222742
Cadmium	NELAP	0.0005	0.0020		**0.0638**	mg/L	1	05/10/2024 14:03	222742
Chromium	NELAP	0.0034	0.0100		**0.116**	mg/L	1	05/10/2024 14:03	222742
Cobalt	NELAP	0.0020	0.0060		**0.0182**	mg/L	1	05/10/2024 14:03	222742
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:03	222742
Molybdenum	NELAP	0.0037	0.0100		**0.0571**	mg/L	1	05/10/2024 14:03	222742
Selenium	NELAP	0.017	0.050	J	**0.017**	mg/L	1	05/10/2024 14:03	222742
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0163**	mg/L	5	05/14/2024 9:36	222742
Lithium	*	0.0015	0.0030		**0.0228**	mg/L	5	05/14/2024 9:36	222742
Thallium	NELAP	0.0010	0.0020		**0.0257**	mg/L	5	05/15/2024 12:11	222742
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/16/2024 7:24	222743
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:26	222744
Barium	NELAP	0.015	0.045	J	**0.021**	mg/L	1	05/10/2024 14:26	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:26	222744
Boron	NELAP	0.250	1.00		**4.20**	mg/L	1	05/10/2024 14:26	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:26	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:26	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:26	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:26	222744
Molybdenum	NELAP	0.0037	0.0100		**0.155**	mg/L	1	05/10/2024 14:26	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:26	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0141**	mg/L	5	05/14/2024 12:54	222744
Lithium	*	0.0015	0.0030		**0.0078**	mg/L	5	05/14/2024 12:54	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 15:00	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:54	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-010
Client Sample ID: D4 19.5-21.5
Matrix: SOLID
Collection Date: 04/30/2024 14:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	31	50		**70**	mg/L	5	05/10/2024 13:26	R347112
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10	J	**0.06**	mg/L	1	05/10/2024 9:52	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4	J	**2**	mg/L	1	05/09/2024 16:22	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.63**		1	05/06/2024 11:22	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 15:07	222740
Barium	NELAP	0.0150	0.0450		**0.238**	mg/L	1	05/10/2024 15:07	222740
Beryllium	NELAP	0.0002	0.0010		**0.0056**	mg/L	1	05/10/2024 15:07	222740
Boron	NELAP	0.500	2.00	S	**26.9**	mg/L	2	05/13/2024 11:34	222740
Cadmium	NELAP	0.0005	0.0020		**0.0422**	mg/L	1	05/10/2024 15:07	222740
Chromium	NELAP	0.0034	0.0100		**0.0151**	mg/L	1	05/10/2024 15:07	222740
Cobalt	NELAP	0.0020	0.0060		**0.0107**	mg/L	1	05/10/2024 15:07	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 15:07	222740
Molybdenum	NELAP	0.0037	0.0100		**0.105**	mg/L	1	05/10/2024 15:07	222740
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 15:07	222740
Matrix spike control limits are not applicable due to high sample/spike ratio.									
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0395**	mg/L	5	05/14/2024 11:51	222740
Lithium	*	0.0015	0.0030		**0.0192**	mg/L	5	05/14/2024 11:51	222740
Thallium	NELAP	0.0010	0.0020		**0.0225**	mg/L	5	05/15/2024 13:55	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**0.00029**	mg/L	1	05/15/2024 17:12	222741
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:26	222744
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/10/2024 14:26	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:26	222744
Boron	NELAP	0.250	1.00		**3.77**	mg/L	1	05/10/2024 14:26	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:26	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:26	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:26	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:26	222744
Molybdenum	NELAP	0.0037	0.0100		**0.0495**	mg/L	1	05/10/2024 14:26	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:26	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0034**	mg/L	5	05/14/2024 14:18	222744
Lithium	*	0.0015	0.0030		**0.0075**	mg/L	5	05/14/2024 14:18	222744
Thallium	NELAP	0.0010	0.0020	J	**0.0017**	mg/L	5	05/15/2024 16:15	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:56	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050346
Report Date: 05-Jun-24

Carrier: Paul Reeves

Received By: LM

Completed by: Amber Dilallo
On: 03-May-24

Reviewed by: Ellie Hopkins
On: 03-May-24

Pages to follow: Chain of custody 1 Extra pages included 25

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 3.3
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	NA ☑	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

Samples requiring pH should be analyzed as soon as possible after collection. Samples submitted for pH analysis are analyzed as soon as practicable upon arrival at the laboratory. - amberdilallo - 5/3/2024 2:35:35 PM

CHAIN OF CUSTODY

Pg __ of __ Workorder # 24050346

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☐ No
Are these samples known to be hazardous? ☐ Yes ☐ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☐ Yes ☐ No

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 3.3 °C LT6475
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

TEKLAB

Client Comments:
TCLP & SPLP for all metals

Courier

email results to C. Grey and datamanagement@andrews-eng.com SAV 5/6/24
*Add'l volume for 24050235-003; use ID D3 9.5-11.5 per Steve Van Hook

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
CWLP Borings	S. Van Hook

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Rad 226 and 228	TCLP & SPLP Sb, As, Ba, Be	TCLP & SPLP B, Cd, Cr, Co, Pb, Se, Tl	TCLP & SPLP Li, Mo	TCLP & SPLP Hg	Neutral Leach Cl, F+, SO4	pH
24050346 001	L4 10'-15.5'	5/2/24 8:15am	Soil	2									✓	✓	✓	✓	✓	✓	✓
002	L3 29.5-32.5	5/2/24 11AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
003	L3 19.5-21.5	5/2/24 11:15AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
004	L1 24.5-31.5	5/2/24 3:30pm	Soil	2									✓	✓	✓	✓	✓	✓	✓
005	L1 14.5-21.5	5/2/24 2:50PM	Soil	2									✓	✓	✓	✓	✓	✓	✓
* 006	D3 9.5-29.5	4/30/24 10:15AM	Soil	2									✓	✓	✓	✓	✓	✓	✓ RAD ONLY SAV 5/6/24
007	D3 4.5-6.5	4/30/24 10:15AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
008	D1 19.5-21.5	4/29/24 3:00PM	Soil	2									✓	✓	✓	✓	✓	✓	✓
009	D2 19.5-21.5	4/29/24 9:30am	Soil	2									✓	✓	✓	✓	✓	✓	✓
010	D4 19.5-21.5	4/30/24 2:45pm	Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	5/2/24 7:00pm	AEI Secure Storage	5/2/24 1900
AEI Secure Storage	5/3/24 07:28	[signature]	5.3.24 0728
[signature]	5.3.24 1350	[signature]	5/3/24 1350

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

5/3

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

June 05, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050346

Dear Shelly Hennessy:

Order No.: 24050783

Summit Environmental Technologies, Inc. received 10 sample(s) on 5/9/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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Case Narrative

WO#: **24050783**
Date: **6/5/2024**

CLIENT: TEKLAB Inc,
Project: 24050346

WorkOrder Narrative:
24050783: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44&
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050783**
Date: **6/5/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24050783**
05-Jun-24

CLIENT: TEKLAB Inc,
Project: 24050346

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050783-001	24050346-001		5/2/2024 8:15:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-002	24050346-002		5/2/2024 11:00:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-003	24050346-003		5/2/2024 11:15:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-004	24050346-004		5/2/2024 3:30:00 PM	5/9/2024 11:40:00 AM	Solid
24050783-005	24050346-005		5/2/2024 2:50:00 PM	5/9/2024 11:40:00 AM	Solid
24050783-006	24050346-006		4/30/2024 10:15:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-007	24050346-007		4/30/2024 10:15:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-008	24050346-008		4/30/2024 3:00:00 PM	5/9/2024 11:40:00 AM	Solid
24050783-009	24050346-009		4/30/2024 9:30:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-010	24050346-010		4/30/2024 2:45:00 PM	5/9/2024 11:40:00 AM	Solid

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DATES REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050783-001A	24050346-001	5/2/2024 8:15:00 AM	Solid	Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-002A	24050346-002	5/2/2024 11:00:00 AM		Radium-226 Analysis (9315)		5/28/2024 1:38:00 PM	6/3/2024 11:07:59 AM
				Radium-228 Analysis (9320)		5/28/2024 1:38:00 PM	5/31/2024 1:16:12 PM
24050783-003A	24050346-003	5/2/2024 11:15:00 AM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-004A	24050346-004	5/2/2024 3:30:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-005A	24050346-005	5/2/2024 2:50:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-006A	24050346-006	4/30/2024 10:15:00 AM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-007A	24050346-007			Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-008A	24050346-008	4/30/2024 3:00:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-009A	24050346-009	4/30/2024 9:30:00 AM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-010A	24050346-010	4/30/2024 2:45:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 8:15:00 AM

Project: 24050346

Lab ID: 24050783-001

Matrix: SOLID

Client Sample ID: 24050346-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.0700	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.290	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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3310 Win St.
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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,
Collection Date: 5/2/2024 11:00:00 AM
Project: 24050346
Lab ID: 24050783-002
Matrix: SOLID
Client Sample ID: 24050346-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.0800	1	6/3/2024 11:07:59 AM
Yield	1.00					1	6/3/2024 11:07:59 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.260	1	5/31/2024 1:16:12 PM
Yield	1.00					1	5/31/2024 1:16:12 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,
Collection Date: 5/2/2024 11:15:00 AM
Project: 24050346
Lab ID: 24050783-003
Matrix: SOLID
Client Sample ID: 24050346-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.140	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.300	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 3:30:00 PM

Project: 24050346

Lab ID: 24050783-004

Matrix: SOLID

Client Sample ID: 24050346-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.100	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.250	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 2:50:00 PM

Project: 24050346

Lab ID: 24050783-005

Matrix: SOLID

Client Sample ID: 24050346-005

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.0800	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.210	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,
Collection Date: 4/30/2024 10:15:00 AM
Project: 24050346
Lab ID: 24050783-006
Matrix: SOLID
Client Sample ID: 24050346-006

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.140	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.280	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 10:15:00 AM

Project: 24050346

Lab ID: 24050783-007

Matrix: SOLID

Client Sample ID: 24050346-007

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.100	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.380	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,
Collection Date: 4/30/2024 3:00:00 PM
Project: 24050346
Lab ID: 24050783-008
Matrix: SOLID
Client Sample ID: 24050346-008

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.160	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.290	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC. Analytical Laboratories

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,
Collection Date: 4/30/2024 9:30:00 AM

Project: 24050346

Lab ID: 24050783-009
Matrix: SOLID

Client Sample ID: 24050346-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.120	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.290	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,
Collection Date: 4/30/2024 2:45:00 PM

Project: 24050346

Lab ID: 24050783-010
Matrix: SOLID

Client Sample ID: 24050346-010

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.120	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.280	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75515**

Sample ID: **MB-75515**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **PBS**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	2.00									
Yield	1.00										

Sample ID: **LCS-75515**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **LCSS**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043899**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.62	2.00	5.000	0	72.4	50	130				

Sample ID: **LCSD-75515**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **LCSS02**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043900**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.01	2.00	5.000	0	60.2	50	130	3.620	18.4	20	

Sample ID: **24041932-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/g-dry**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **BatchQC**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/g-dry** Prep Date: **5/16/2024** RunNo: **186135**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9320** **E903-904** Analysis Date: **5/22/2024** SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	10.4	2.34	11.68	0	88.9	0	0	7.583	31.2	20	RS
Yield	1.17							1.168	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75515**

Sample ID: **MB-75515** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **PBS** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044082**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75515** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **LCSS** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044083**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.20	1.00	5.000	0	124	70	130				

Sample ID: **LCSD-75515** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **LCSS02** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.76	1.00	5.000	0	115	60	140	6.200	7.36	40	

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g-dry** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g-dry** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	7.61	1.17						8.133	6.68	20	
Yield	1.17							1.168	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75738**

Sample ID: **MB-75738**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/28/2024**	RunNo: **186695**
Client ID: **PBS**	Batch ID: **75738**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/31/2024**	SeqNo: **5059001**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	2.00									
Yield	1.00										

Sample ID: **LCS-75738**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/28/2024**	RunNo: **186695**
Client ID: **LCSS**	Batch ID: **75738**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/31/2024**	SeqNo: **5059002**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.33	2.00	5.000	0	66.6	50	130				

Sample ID: **LCSD-75738**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/28/2024**	RunNo: **186695**
Client ID: **LCSS02**	Batch ID: **75738**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/31/2024**	SeqNo: **5059003**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.40	2.00	5.000	0	68.0	50	130	3.330	2.08	20	

Sample ID: **24050783-002ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/28/2024**	RunNo: **186695**
Client ID: **24050346-002**	Batch ID: **75738**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/31/2024**	SeqNo: **5059008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75738**

Sample ID: **24050783-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186695**
Client ID: **24050346-002** Batch ID: **75738** TestNo: **SW9320** **E903-904** Analysis Date: **5/31/2024** SeqNo: **5059008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	2.00	10.00	0	0	0	0	0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75738**

Sample ID: **MB-75738** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186696**
Client ID: **PBS** Batch ID: **75738** TestNo: **SW9315** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5059009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75738** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186696**
Client ID: **LCSS** Batch ID: **75738** TestNo: **SW9315** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5059010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.94	1.00	5.000	0	98.8	70	130				

Sample ID: **LCSD-75738** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186696**
Client ID: **LCSS02** Batch ID: **75738** TestNo: **SW9315** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5059011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.81	1.00	5.000	0	96.2	60	140	4.940	2.67	40	

Sample ID: **24050783-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186696**
Client ID: **24050346-002** Batch ID: **75738** TestNo: **SW9315** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5059016**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75738**

Sample ID: **24050783-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186696**
Client ID: **24050346-002** Batch ID: **75738** TestNo: **SW9315** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5059016**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Pg 1 of 1

24050783

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

18.4-0.2= Cooler Temp: 18.2c Sampler: Client QC Level: 2

Fedex, Cooler

Project# 24050346

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36236 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228		CPM
	24050346-001	5/2/24 0815	Unpres	Soil	✔		24
	24050346-002	5/2/24 1100	Unpres	Soil	✔		36
	24050346-003	5/2/24 1115	Unpres	Soil	✔		24
	24050346-004	5/2/24 1530	Unpres	Soil	✔		24
	24050346-005	5/2/24 1450	Unpres	Soil	✔		28
	24050346-006	4/30/24 1015	Unpres	Soil	✔		20
	24050346-007	4/30/24 1015	Unpres	Soil	✔		30
	24050346-008	4/29/24 1500	Unpres	Soil	✔		24
	24050346-009	4/29/24 0930	Unpres	Soil	✔		38
	24050346-010	4/30/24 1445	Unpres	Soil	✔		34
			Other	Aqueous			

*Relinquished By	Date/Time	Received By	Date/Time
[illegible]	5/6/24 1700	[illegible]	5/9/24, 1140

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050783 RcptNo: 1

Logged by:	Tegan A. Richards	5/9/2024 11:40:00 AM	Tegan Richards
Completed By:	Tegan A. Richards	5/10/2024 12:09:39 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	5/10/2024 5:04:45 PM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	18.2	Good	Not Present			

May 28, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050428

Dear Eric Staley:

TEKLAB, INC received 2 samples on 5/6/2024 12:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050428
Report Date: 28-May-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	9
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050428

Client Project: CWLP Borings **Report Date:** 28-May-24

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24050428
Client Project: CWLP Borings
Report Date: 28-May-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050428
Client Project: CWLP Borings
Report Date: 28-May-24

Cooler Receipt Temp: 3.5 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050428

Client Project: CWLP Borings

Report Date: 28-May-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 24050428

Client Project: CWLP Borings **Report Date:** 28-May-24

Lab ID: 24050428-001 **Client Sample ID:** L5 19.5-21.5

Matrix: SOLID **Collection Date:** 05/03/2024 8:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	31	50		**67**	mg/L	5	05/15/2024 13:32	R347372
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.36**	mg/L	1	05/13/2024 9:06	R347147
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**6**	mg/L	1	05/14/2024 20:03	R347274
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.14**		1	05/07/2024 10:21	R346852
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0276**	mg/L	1	05/15/2024 12:27	222893
Barium	NELAP	0.0150	0.0450		**0.574**	mg/L	1	05/15/2024 12:27	222893
Beryllium	NELAP	0.0002	0.0010		**0.0049**	mg/L	1	05/15/2024 12:27	222893
Boron	NELAP	0.250	1.00		**2.32**	mg/L	1	05/21/2024 8:27	223096
Cadmium	NELAP	0.0005	0.0020		**0.149**	mg/L	1	05/15/2024 12:27	222893
Chromium	NELAP	0.0034	0.010	J	**0.0082**	mg/L	1	05/15/2024 12:27	222893
Cobalt	NELAP	0.0020	0.0060		**0.0218**	mg/L	1	05/15/2024 12:27	222893
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/15/2024 12:27	222893
Molybdenum	NELAP	0.0037	0.010	J	**0.0081**	mg/L	1	05/15/2024 12:27	222893
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/15/2024 12:27	222893
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0072**	mg/L	5	05/16/2024 18:27	222893
Lithium	*	0.0015	0.0030		**0.0153**	mg/L	5	05/16/2024 18:27	222893
Thallium	NELAP	0.0010	0.0020		**0.0199**	mg/L	5	05/16/2024 18:27	222893
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/18/2024 12:42	222892
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0331**	mg/L	1	05/17/2024 17:00	222963
Barium	NELAP	0.0150	0.0450		**0.0596**	mg/L	1	05/17/2024 17:00	222963
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/17/2024 17:00	222963
Boron	NELAP	0.250	1.00		**1.05**	mg/L	1	05/17/2024 17:00	222963
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/17/2024 17:00	222963
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/17/2024 17:00	222963
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/17/2024 17:00	222963
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/17/2024 17:00	222963
Molybdenum	NELAP	0.0037	0.010	J	**0.0076**	mg/L	1	05/17/2024 17:00	222963
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/17/2024 17:00	222963
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0067**	mg/L	5	05/17/2024 9:22	222963
Lithium	*	0.0015	0.0030	J	**0.0027**	mg/L	5	05/16/2024 14:37	222963
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/16/2024 14:37	222963
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 14:08	222116
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896

Client: City Water, Light & Power **Work Order:** 24050428

Client Project: CWLP Borings **Report Date:** 28-May-24

Lab ID: 24050428-002 **Client Sample ID:** L5 32.5-35.2

Matrix: SOLID **Collection Date:** 05/03/2024 9:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	31	50		**73**	mg/L	5	05/15/2024 13:35	R347372
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10	J	**0.08**	mg/L	1	05/13/2024 9:11	R347147
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**11**	mg/L	1	05/14/2024 20:11	R347274
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.27**		1	05/07/2024 10:22	R346852
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/17/2024 17:06	222894
Barium	NELAP	0.0150	0.0450		**1.24**	mg/L	1	05/15/2024 12:38	222894
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/15/2024 12:38	222894
Boron	NELAP	0.250	1.00		**2.79**	mg/L	1	05/20/2024 9:22	223102
Cadmium	NELAP	0.0005	0.0020		**0.0022**	mg/L	1	05/15/2024 12:38	222894
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/15/2024 12:38	222894
Cobalt	NELAP	0.0020	0.0060	J	**0.0043**	mg/L	1	05/15/2024 12:38	222894
Lead	NELAP	0.0045	0.0075		**< 0.0075**	mg/L	1	05/15/2024 12:38	222894
Molybdenum	NELAP	0.0037	0.0100		**0.0375**	mg/L	1	05/15/2024 12:38	222894
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/15/2024 12:38	222894
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0017**	mg/L	5	05/16/2024 18:07	222894
Lithium	*	0.0015	0.0030		**0.0183**	mg/L	5	05/16/2024 18:07	222894
Thallium	NELAP	0.0010	0.0020		**0.0021**	mg/L	5	05/16/2024 18:07	222894
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/18/2024 13:19	222895
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/17/2024 17:02	222963
Barium	NELAP	0.015	0.045	J	**0.023**	mg/L	1	05/17/2024 17:02	222963
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/17/2024 17:02	222963
Boron	NELAP	0.250	1.00		**2.15**	mg/L	1	05/17/2024 17:02	222963
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/17/2024 17:02	222963
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/17/2024 17:02	222963
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/17/2024 17:02	222963
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/17/2024 17:02	222963
Molybdenum	NELAP	0.0037	0.0100		**0.0904**	mg/L	1	05/17/2024 17:02	222963
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/17/2024 17:02	222963
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0005	0.0010		**0.0025**	mg/L	5	05/16/2024 14:21	222963
Lithium	*	0.0015	0.0030		**0.0033**	mg/L	5	05/16/2024 14:21	222963
Thallium	NELAP	0.0010	0.0020	J	**0.0019**	mg/L	5	05/16/2024 14:21	222963
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 14:11	222116
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050428
Report Date: 28-May-24

Carrier: Paul Reeves

Received By: NR

Completed by: Amber Dilallo
On: 06-May-24

Reviewed by: Ellie Hopkins
On: 06-May-24

Pages to follow: Chain of custody 1 Extra pages included 16

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 3.5
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	NA ☑	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

Samples requiring pH should be analyzed as soon as possible after collection. Samples submitted for pH analysis are analyzed as soon as practicable upon arrival at the laboratory. - amberdilallo - 5/6/2024 1:04:15 PM

Print PDF

CHAIN OF CUSTODY

Pg __ of __ Workorder # 2405042Y

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 3-5 °C CT6 #7
Preserved in: ☐ LAB ☐ FIELD
FOR LAB USE ONLY
LAB NOTES: TEKLAB

Client Comments: Courier
TCLP & SPLP for all metals

email results to C. Grey and datamanagement@andrews-eng.com

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☐ No
Are these samples known to be hazardous? ☐ Yes ☐ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☐ Yes ☐ No

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
CWLP Borings	S. Van Hook

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Rad 226 and 228	TCLP & SPLP Sb, As, Ba, Be	TCLP & SPLP B, Cd, Cr, Co, Pb, Se, Tl	TCLP & SPLP Li, Mo	TCLP & SPLP Hg	Neutral Leach Cl, F-, SO4	pH
2405042Y 001	LS 19.5 - 21.5	5/3/2024 8:30AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
002	LS 32.5 - 35.2	5/3/2024 9:00AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															

Relinquished By	Date/Time	Received By	Date/Time
Steve Van Hook	5/3/2024 12:30pm	Paul Mix	5.6.24 0820
Paul Mix	5.6.24 1200	Rich Reed	5/6/24 1200

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

MR 5/6

Summit Environmental Technologies, Inc.
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Website: http://www.settek.com

May 28, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050428

Dear Shelly Hennessy:

Order No.: 24050795

Summit Environmental Technologies, Inc. received 2 sample(s) on 5/9/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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Case Narrative

WO#: **24050795**
Date: **5/28/2024**

CLIENT: TEKLAB Inc,
Project: 24050428

WorkOrder Narrative:
24050795: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
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Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050795**
Date: **5/28/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24050795**

28-May-24

CLIENT: TEKLAB Inc,
Project: 24050428

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050795-001	24050428-001		5/3/2024 8:30:00 AM	5/9/2024 11:40:00 AM	Solid
24050795-002	24050428-002		5/3/2024 9:00:00 AM	5/9/2024 11:40:00 AM	Solid

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DATES REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,

Project: 24050428

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050795-001A	24050428-001	5/3/2024 8:30:00 AM	Solid	Percent Moisture by SM2540Mod			5/25/2024 3:45:00 PM
				Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050795-002A	24050428-002	5/3/2024 9:00:00 AM		Percent Moisture by SM2540Mod			5/25/2024 3:45:00 PM
				Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM

Original

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Analytical Report

(consolidated)

WO#: **24050795**

Date Reported: **5/28/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/3/2024 8:30:00 AM

Project: 24050428

Lab ID: 24050795-001

Matrix: SOLID

Client Sample ID: 24050428-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)				**SW9315**	**E903-904**	Analyst: **SMZ**	
Radium-226	ND	1.66		pCi/g-dry	± 0.160	1	5/23/2024 10:51:41 AM
Yield	1.66			-dry		1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)				**SW9320**	**E903-904**	Analyst: **SMZ**	
Radium-228	ND	3.31		pCi/g-dry	± 0.320	1	5/22/2024 3:06:59 PM
Yield	1.66			-dry		1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **24050795**

Date Reported: **5/28/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/3/2024 9:00:00 AM

Project: 24050428

Lab ID: 24050795-002

Matrix: SOLID

Client Sample ID: 24050428-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)				**SW9315**	**E903-904**		Analyst: **SMZ**
Radium-226	ND	1.77		pCi/g-dry	± 0.0600	1	5/23/2024 10:51:41 AM
Yield	1.77			-dry		1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)				**SW9320**	**E903-904**		Analyst: **SMZ**
Radium-228	ND	3.55		pCi/g-dry	± 0.320	1	5/22/2024 3:06:59 PM
Yield	1.77			-dry		1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(base report)

WO#: **24050795**

Date Reported: **5/28/2024**

CLIENT: TEKLAB Inc,
Matrix: SOLID
Lab ID: 24050795-001A
Project: 24050428
Client Sample ID 24050428-001

Tag Number:
Collection Date: 5/3/2024 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE BY SM2540MOD				**A2540B**		Analyst: **AAA**
Percent Moisture	39.6	0.500		%	1	5/25/2024 3:45:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(base report)

WO#: **24050795**

Date Reported: **5/28/2024**

CLIENT: TEKLAB Inc,
Matrix: SOLID
Lab ID: 24050795-002A
Project: 24050428
Client Sample ID 24050428-002

Tag Number:
Collection Date: 5/3/2024 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE BY SM2540MOD				**A2540B**		Analyst: **AAA**
Percent Moisture	43.6	0.500		%	1	5/25/2024 3:45:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,
Project: 24050428 **BatchID:** **75515**

Sample ID: **MB-75515**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **PBS**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	2.00									
Yield	1.00										

Sample ID: **LCS-75515**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **LCSS**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043899**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.62	2.00	5.000	0	72.4	50	130				

Sample ID: **LCSD-75515**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **LCSS02**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043900**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.01	2.00	5.000	0	60.2	50	130	3.620	18.4	20	

Sample ID: **24041932-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/g-dry**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **BatchQC**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,
Project: 24050428 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/g-dry** Prep Date: **5/16/2024** RunNo: **186135**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9320** **E903-904** Analysis Date: **5/22/2024** SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	10.4	2.34	11.68	0	88.9	0	0	7.583	31.2	20	RS
Yield	1.17							1.168	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,
Project: 24050428 **BatchID:** **75515**

Sample ID: **MB-75515** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **PBS** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044082**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75515** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **LCSS** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044083**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.20	1.00	5.000	0	124	70	130				

Sample ID: **LCSD-75515** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **LCSS02** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.76	1.00	5.000	0	115	60	140	6.200	7.36	40	

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g-dry** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,
Project: 24050428 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g-dry** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	7.61	1.17						8.133	6.68	20	
Yield	1.17							1.168	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,
Project: 24050428 **BatchID:** **R186329**

Sample ID: **MB-R186329**	SampType: **MBLK**	TestCode: **PctMoist_S(2**	Units: **%**	Prep Date:	RunNo: **186329**
Client ID: **PBS**	Batch ID: **R186329**	TestNo: **A2540B**		Analysis Date: **5/25/2024**	SeqNo: **5049039**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	ND	0.500									

Sample ID: **24051805-006ADUP**	SampType: **DUP**	TestCode: **PctMoist_S(2**	Units: **%**	Prep Date:	RunNo: **186329**
Client ID: **BatchQC**	Batch ID: **R186329**	TestNo: **A2540B**		Analysis Date: **5/25/2024**	SeqNo: **5049048**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	17.8	0.500						17.37	2.41	5	

Sample ID: **24051777-003ADUP**	SampType: **DUP**	TestCode: **PctMoist_S(2**	Units: **%**	Prep Date:	RunNo: **186329**
Client ID: **BatchQC**	Batch ID: **R186329**	TestNo: **A2540B**		Analysis Date: **5/25/2024**	SeqNo: **5049058**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	7.92	0.500						7.909	0.187	5	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Pg ___ of ___ 24050795

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

18.4-0.2 = Cooler Temp: 18.2 Sampler: Client QC Level: 2

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Fedex, Cooler

Project# 24050428

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36234 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228		CPM										
	24050428-001	5/3/24 0830	Unpres	Soil	✔		32										
	24050428-002	5/3/24 0900	Unpres	Soil	✔		22										
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													

*Relinquished By	Date/Time	Received By	Date/Time
Omar Rivera	5/6/24 1200		5/9/24, 1140

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights,

SubCocRevA

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050795 RcptNo: 1

Logged by:	Tegan A. Richards	5/9/2024 11:40:00 AM	Tegan Richards
Completed By:	Tegan A. Richards	5/10/2024 12:25:27 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	5/10/2024 5:06:15 PM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	18.2	Good	Not Present			

May 29, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050236

Dear Eric Staley:

TEKLAB, INC received 4 samples on 5/2/2024 1:11:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	11
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050236

Client Project: CWLP Borings **Report Date:** 29-May-24

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050236
Report Date: 29-May-24

Cooler Receipt Temp: 5.9 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050236

Client Project: CWLP Borings

Report Date: 29-May-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24
Lab ID: 24050236-001
Client Sample ID: D-2 20ft.
Matrix: GROUNDWATER
Collection Date: 04/29/2024 9:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1720**	mg/L	50	05/09/2024 11:05	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**9.27**		1	05/03/2024 10:33	R346719
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.21**	mg/L	1	05/09/2024 12:19	R347045
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**236**	mg/L	10	05/07/2024 18:33	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.022	0.050	J	**0.024**	mg/L	250	05/10/2024 14:10	222410
Arsenic	NELAP	0.0200	0.0500		**0.279**	mg/L	250	05/10/2024 14:10	222410
Barium	NELAP	0.0350	0.0500		**1.13**	mg/L	250	05/10/2024 14:10	222410
Beryllium	NELAP	0.0125	0.0500		**0.0640**	mg/L	250	05/10/2024 14:10	222410
Boron	NELAP	0.462	1.25		**89.0**	mg/L	250	05/10/2024 14:10	222410
Cadmium	NELAP	0.0075	0.0500		**0.0541**	mg/L	250	05/13/2024 13:49	222410
Chromium	NELAP	0.0350	0.0750		**0.902**	mg/L	250	05/10/2024 14:10	222410
Cobalt	NELAP	0.0058	0.0500		**0.0579**	mg/L	250	05/13/2024 13:49	222410
Lead	NELAP	0.0300	0.0500		**0.199**	mg/L	250	05/10/2024 14:10	222410
Lithium	*	0.0725	0.150		**0.154**	mg/L	250	05/10/2024 14:10	222410
Molybdenum	NELAP	0.0300	0.0750		**8.04**	mg/L	250	05/15/2024 3:31	222410
Selenium	NELAP	0.0300	0.0500		**< 0.0500**	mg/L	250	05/10/2024 14:10	222410
Thallium	NELAP	0.048	0.10	J	**0.049**	mg/L	250	05/10/2024 14:10	222410

Elevated reporting limit due to matrix interference.

Contamination present in the CCB for Sb. Sample results below the reporting limit are reportable per the TNI Standard.

SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00046**	mg/L	1	05/24/2024 12:57	223373
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24
Lab ID: 24050236-002
Client Sample ID: D-1 25ft.
Matrix: GROUNDWATER
Collection Date: 04/29/2024 15:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1740**	mg/L	50	05/09/2024 11:08	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**9.85**		1	05/03/2024 10:34	R346719
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.32**	mg/L	1	05/09/2024 12:22	R347045
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**63**	mg/L	10	05/07/2024 18:41	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.060	0.10	J	**0.061**	mg/L	500	05/10/2024 13:02	222414
Arsenic	NELAP	0.0400	0.100		**1.17**	mg/L	500	05/10/2024 13:02	222414
Barium	NELAP	0.0700	0.100		**2.48**	mg/L	500	05/10/2024 13:02	222414
Beryllium	NELAP	0.0250	0.100		**0.254**	mg/L	500	05/10/2024 13:02	222414
Boron	NELAP	0.925	2.50		**78.6**	mg/L	500	05/10/2024 13:02	222414
Cadmium	NELAP	0.0150	0.100		**0.222**	mg/L	500	05/13/2024 17:43	222414
Chromium	NELAP	0.0700	0.150		**3.91**	mg/L	500	05/10/2024 13:02	222414
Cobalt	NELAP	0.0115	0.100		**0.241**	mg/L	500	05/13/2024 17:43	222414
Lead	NELAP	0.0600	0.100		**1.04**	mg/L	500	05/10/2024 13:02	222414
Lithium	*	0.145	0.300		**0.428**	mg/L	500	05/10/2024 13:02	222414
Molybdenum	NELAP	0.0600	0.150		**15.7**	mg/L	500	05/15/2024 5:53	222414
Selenium	NELAP	0.060	0.10	J	**0.10**	mg/L	500	05/10/2024 13:02	222414
Thallium	NELAP	0.095	0.20	J	**0.13**	mg/L	500	05/10/2024 13:02	222414
Elevated reporting limit due to matrix interference.									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00562**	mg/L	1	05/14/2024 17:39	222568
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24
Lab ID: 24050236-003
Client Sample ID: D-3 20ft.
Matrix: GROUNDWATER
Collection Date: 04/30/2024 10:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1000**	mg/L	50	05/09/2024 11:13	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**10.1**		1	05/03/2024 10:36	R346719
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.33**	mg/L	1	05/09/2024 12:23	R347045
SW-846 9251 (TOTAL)									
Chloride	NELAP	1	4		**41**	mg/L	1	05/07/2024 18:43	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0650	0.100		**0.230**	mg/L	500	05/10/2024 10:39	222461
Arsenic	NELAP	0.0800	0.200		**2.33**	mg/L	1000	05/10/2024 9:43	222461
Barium	NELAP	0.0700	0.100		**3.51**	mg/L	500	05/10/2024 10:39	222461
Beryllium	NELAP	0.0250	0.100		**0.439**	mg/L	500	05/10/2024 10:39	222461
Boron	NELAP	0.925	2.50		**105**	mg/L	500	05/10/2024 10:39	222461
Cadmium	NELAP	0.0300	0.200		**0.492**	mg/L	1000	05/14/2024 15:24	222461
Chromium	NELAP	0.140	0.300		**6.25**	mg/L	1000	05/10/2024 9:43	222461
Cobalt	NELAP	0.0230	0.200		**0.323**	mg/L	1000	05/10/2024 9:43	222461
Lead	NELAP	0.0600	0.100		**1.46**	mg/L	500	05/10/2024 10:39	222461
Lithium	*	0.145	0.300		**0.571**	mg/L	500	05/10/2024 10:39	222461
Molybdenum	NELAP	0.140	0.300		**2.61**	mg/L	1000	05/16/2024 7:35	222461
Selenium	NELAP	0.12	0.20	J	**0.13**	mg/L	1000	05/10/2024 9:43	222461
Thallium	NELAP	0.0950	0.200		**0.274**	mg/L	500	05/10/2024 10:39	222461
Elevated reporting limit due to matrix interference.									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00055	0.00200	H	**0.00685**	mg/L	10	05/29/2024 12:19	223513
Sample required re-analysis out of hold time.									
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24
Lab ID: 24050236-004
Client Sample ID: D-4 20ft.
Matrix: GROUNDWATER
Collection Date: 04/30/2024 14:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**2050**	mg/L	50	05/09/2024 11:16	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**9.10**		1	05/03/2024 10:37	R346719
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.43**	mg/L	1	05/09/2024 12:25	R347045
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**139**	mg/L	10	05/07/2024 18:57	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0180	0.0400		**0.0812**	mg/L	200	05/15/2024 10:35	222764
Arsenic	NELAP	0.0400	0.100		**0.378**	mg/L	500	05/15/2024 10:29	222764
Barium	NELAP	0.0350	0.0500		**0.975**	mg/L	250	05/16/2024 9:42	222764
Beryllium	NELAP	0.0002	0.0010		**0.0674**	mg/L	5	05/14/2024 23:46	222764
Boron	NELAP	0.462	1.25		**73.1**	mg/L	250	05/16/2024 9:42	222764
Cadmium	NELAP	0.015	0.10	J	**0.068**	mg/L	500	05/15/2024 10:29	222764
Chromium	NELAP	0.0700	0.150		**1.03**	mg/L	500	05/15/2024 10:29	222764
Cobalt	NELAP	0.012	0.10	J	**0.061**	mg/L	500	05/15/2024 10:29	222764
Lead	NELAP	0.0240	0.0400		**0.266**	mg/L	200	05/15/2024 10:35	222764
Lithium	*	0.0725	0.150		**0.228**	mg/L	250	05/16/2024 9:42	222764
Molybdenum	NELAP	0.0600	0.150		**2.30**	mg/L	500	05/15/2024 10:29	222764
Selenium	NELAP	0.060	0.10	J	**0.090**	mg/L	500	05/15/2024 10:29	222764
Thallium	NELAP	0.038	0.080	J	**0.066**	mg/L	200	05/15/2024 10:35	222764
Elevated reporting limit due to sample composition.									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00717**	mg/L	1	05/14/2024 17:44	222568
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050236
Report Date: 29-May-24

Carrier: Paul Reeves
Received By: NR

Completed by: Amber Dilallo
On: 02-May-24

Reviewed by: Ellie Hopkins
On: 02-May-24

Pages to follow: Chain of custody 1 Extra pages included 18

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 5.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☐	No ☑		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☐	No ☑		
Reported field parameters measured:	Field ☐	Lab ☑	NA ☐	

Sample analyses to be measured in the field and/or within 15 minutes of collection were analyzed in the lab as soon as practicable. These analyses include Chlorine (demand, free and/or residual), Carbon Dioxide, Dissolved Oxygen, Ferrous Iron, pH, and Sulfite.

Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Any No responses must be detailed below or on the COC.

Samples were preserved with Nitric Acid (97606) upon arrival at the laboratory. - amberdilallo - 5/2/2024 3:15:00 PM

pH strip #96651. - amberdilallo - 5/2/2024 3:15:13 PM

D-1 25ft. labeled as collected at 1430 rather than 1500. Collen Grey was notified of this error via work order summary. - amberdilallo - 5/2/2024 3:15:45 PM

CHAIN OF CUSTODY

Pg __ of __ Workorder # 24050236

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 5.9 °C #7
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: Added HNO3 (9606) to all um 5/2 *14:30 on container (ump) 9606?

Client Comments:
email results to C. Grey and datamanagement@andrews-eng.com

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No
Are these samples known to be hazardous? [ ] Yes [ ] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
CWLP Borings	S. Van Hook

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Rad 226 and 228	Sb, As, Ba, Be	B, Cd, Cr, Co, Pb, Se, Tl	Li, Mo	Hg	Cl, F+, SO4	pH
2405023600 1	D-2 20ft.	4/29/24 9:30am	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
002	D-1 25ft.	4/29/24 3pm*	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
003	D-3 20ft.	4/30/24 10am	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
004	D-4 20ft.	4/30/24 2:45pm	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Steven Van Hook	4/30/24 5:30pm	ASI Secure Storage	4/30/24 17:30
eurofins Custody Seal #1697609			
ASI Secure Storage cmg	5/2/24 7:40		5-2-24 0746
	5.2.24 1311	Mark Reed	5/2/24 1311

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

May 22, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050236

Dear Shelly Hennessy:

Order No.: 24050483

Summit Environmental Technologies, Inc. received 4 sample(s) on 5/6/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **24050483**
Date: **5/22/2024**

CLIENT: TEKLAB Inc,
Project: 24050236

WorkOrder Narrative:
24050483: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Sample Fraction:
Per Chain of Custody note: Analyze Aqueous layer only.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
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Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050483**
Date: **5/22/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24050483**

22-May-24

CLIENT: TEKLAB Inc,
Project: 24050236

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050483-001	24050236-001		4/29/2024 9:30:00 AM	5/6/2024 10:00:00 AM	Non-Potable Water
24050483-002	24050236-002		4/29/2024 3:00:00 PM	5/6/2024 10:00:00 AM	Non-Potable Water
24050483-003	24050236-003		4/30/2024 10:00:00 AM	5/6/2024 10:00:00 AM	Non-Potable Water
24050483-004	24050236-004		4/30/2024 2:45:00 PM	5/6/2024 10:00:00 AM	Non-Potable Water

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DATES REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,

Project: 24050236

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050483-001A	24050236-001	4/29/2024 9:30:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM
24050483-002A	24050236-002	4/29/2024 3:00:00 PM		Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM
24050483-003A	24050236-003	4/30/2024 10:00:00 AM		Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM
24050483-004A	24050236-004	4/30/2024 2:45:00 PM		Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC. Analytical Laboratories

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Analytical Report

(consolidated)

WO#: **24050483**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/29/2024 9:30:00 AM

Project: 24050236

Lab ID: 24050483-001

Matrix: NON-POTABLE WATER

Client Sample ID: 24050236-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	4.63	1.67		pCi/L	± 0.590	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	2.18	1.67		pCi/L	± 0.800	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **24050483**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/29/2024 3:00:00 PM

Project: 24050236

Lab ID: 24050483-002

Matrix: NON-POTABLE WATER

Client Sample ID: 24050236-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.43		pCi/L	± 0.250	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.43		pCi/L	± 0.570	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **24050483**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 10:00:00 AM

Project: 24050236

Lab ID: 24050483-003

Matrix: NON-POTABLE WATER

Client Sample ID: 24050236-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	2.50		pCi/L	± 0.470	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	2.50		pCi/L	± 0.800	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **24050483**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 2:45:00 PM

Project: 24050236

Lab ID: 24050483-004

Matrix: NON-POTABLE WATER

Client Sample ID: 24050236-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	3.34		pCi/L	± 0.580	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	3.34		pCi/L	± 1.24	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **24050495-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	1.00			0	0			1.000	0		

Sample ID: **24050495-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **MB-75217**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **PBW**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040004**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-75217**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **LCSW**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040005**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.36	1.00	5.000	0	67.2	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-75217**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **LCSS02**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.00	1.00	5.000	0	100	50	130	3.360	39.2	20	R
Yield	0.960			0	0			1.000	4.08		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **RLC-75217** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.14	1.00	1.000	0	114	50	150				
Yield	1.00			0	0						

Sample ID: **RLCD-75217** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	87.0	50	150				
Yield	1.00			0	0						

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **24050495-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040150**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Sample ID: **24050495-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040152**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **MB-75217**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **PBW**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040143**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.980										

Sample ID: **LCS-75217**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **LCSW**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040144**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.38	1.00	5.000	0	87.6	70	130				

Sample ID: **LCSD-75217**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **LCSS02**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040145**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.67	1.00	5.000	0	93.4	70	130	4.380	6.41	20	

Sample ID: **RLC-75217**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **BatchQC**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
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Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **RLC-75217**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **BatchQC**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	95.0	50	150				

Sample ID: **RLCD-75217**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **BatchQC**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040148**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	99.0	50	150				

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Pg __ of 24050483

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: 19.5 19.7 0.2 Sampler: Client QC Level: 2

Fedex, Cooler

Project# 24050236

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site. Analyze aqueous layers only.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36223 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228											
						CAM						PH				
	24050236-001	4/29/24 0930	HNO3	Groundwater	✔	42, 22						1,3				
	24050236-002	4/29/24 1500	HNO3	Groundwater	✔	34, 38						1,2				
	24050236-003	4/30/24 1000	HNO3	Groundwater	✔	16, ~~5~~ TR 5/7/24						4,				
	24050236-004	4/30/24 1445	HNO3	Groundwater	✔	34, 32						4,5				
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												

*Relinquished By	Date/Time	Received By	Date/Time
[illegible]	5/2/24 1700	[illegible]	5/6/24 1000

One container - 003 arrived broken

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sample information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
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Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050483 RcptNo: 1

Logged by:	Tegan A. Richards	5/6/2024 10:00:00 AM	Tegan Richards
Completed By:	Tegan A. Richards	5/7/2024 5:18:50 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	5/8/2024 10:44:21 AM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☐ No ☑
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☑ No ☐
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

pH for all but 2 containers >2, one container -003 received broken

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

Summit Environmental Technologies, Inc.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050483 RcptNo: 1

May 23, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050347

Dear Eric Staley:

TEKLAB, INC received 3 samples on 5/3/2024 1:50:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050347
Client Project: CWLP Borings
Report Date: 23-May-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	10
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050347

Client Project: CWLP Borings **Report Date:** 23-May-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24050347
Client Project: CWLP Borings
Report Date: 23-May-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050347
Client Project: CWLP Borings
Report Date: 23-May-24

Cooler Receipt Temp: 3.7 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050347

Client Project: CWLP Borings

Report Date: 23-May-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050347
Client Project: CWLP Borings
Report Date: 23-May-24
Lab ID: 24050347-001
Client Sample ID: L4 18ft.
Matrix: GROUNDWATER
Collection Date: 05/02/2024 8:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1050**	mg/L	50	05/09/2024 11:21	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**7.35**		1	05/06/2024 14:09	R346778
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**1.19**	mg/L	1	05/10/2024 14:31	R347102
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**154**	mg/L	10	05/07/2024 19:05	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**0.0020**	mg/L	5	05/16/2024 10:42	222862
Arsenic	NELAP	0.0004	0.0010		**0.0512**	mg/L	5	05/08/2024 20:10	222470
Barium	NELAP	0.0008	0.0010		**0.308**	mg/L	5	05/08/2024 20:10	222470
Beryllium	NELAP	0.0002	0.0010		**0.0024**	mg/L	5	05/08/2024 20:10	222470
Boron	NELAP	0.0092	0.0250		**2.15**	mg/L	5	05/08/2024 20:10	222470
Cadmium	NELAP	0.0002	0.0010		**0.0019**	mg/L	5	05/14/2024 4:27	222470
Chromium	NELAP	0.0009	0.0015		**0.0632**	mg/L	5	05/08/2024 20:10	222470
Cobalt	NELAP	0.0002	0.0010		**0.0213**	mg/L	5	05/08/2024 20:10	222470
Lead	NELAP	0.0006	0.0010		**0.0526**	mg/L	5	05/15/2024 14:55	222862
Lithium	*	0.0015	0.0030		**0.0288**	mg/L	5	05/08/2024 20:10	222470
Molybdenum	NELAP	0.0006	0.0015		**0.0218**	mg/L	5	05/10/2024 18:38	222470
Selenium	NELAP	0.0006	0.0010		**0.0066**	mg/L	5	05/08/2024 20:10	222470
Thallium	NELAP	0.0010	0.0020	J	**0.0012**	mg/L	5	05/08/2024 20:10	222470
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00050**	mg/L	1	05/20/2024 14:24	223152
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Client: City Water, Light & Power **Work Order:** 24050347

Client Project: CWLP Borings **Report Date:** 23-May-24

Lab ID: 24050347-002 **Client Sample ID:** L3-20ft.

Matrix: GROUNDWATER **Collection Date:** 05/02/2024 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	614	1000		**2660**	mg/L	100	05/10/2024 12:35	R347112
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**8.10**		1	05/06/2024 14:10	R346778
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**1.07**	mg/L	1	05/10/2024 10:26	R347102
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**269**	mg/L	10	05/07/2024 19:26	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0180	0.0400	B	**0.0655**	mg/L	200	05/14/2024 15:36	222470
Arsenic	NELAP	0.0080	0.0200		**2.43**	mg/L	100	05/10/2024 19:03	222470
Barium	NELAP	0.0140	0.0200		**1.49**	mg/L	100	05/10/2024 19:03	222470
Beryllium	NELAP	0.0050	0.0200		**0.102**	mg/L	100	05/14/2024 4:33	222470
Boron	NELAP	0.370	1.00		**25.8**	mg/L	200	05/14/2024 15:36	222470
Cadmium	NELAP	0.0060	0.0400		**0.260**	mg/L	200	05/17/2024 13:03	222470
Chromium	NELAP	0.0280	0.0600		**2.08**	mg/L	200	05/17/2024 13:03	222470
Cobalt	NELAP	0.0046	0.0400		**0.336**	mg/L	200	05/17/2024 13:03	222470
Lead	NELAP	0.0120	0.0200	B	**3.40**	mg/L	100	05/10/2024 19:03	222470
Lithium	*	0.0290	0.0600		**0.621**	mg/L	100	05/14/2024 4:33	222470
Molybdenum	NELAP	0.0240	0.0600		**0.218**	mg/L	200	05/17/2024 13:03	222470
Selenium	NELAP	0.0120	0.0200		**0.158**	mg/L	100	05/10/2024 19:03	222470
Thallium	NELAP	0.0190	0.0400		**0.0433**	mg/L	100	05/10/2024 19:03	222470
Sample result for Sb exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.									
Sample result for Pb exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00926**	mg/L	1	05/20/2024 15:07	223152
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Client: City Water, Light & Power **Work Order:** 24050347

Client Project: CWLP Borings **Report Date:** 23-May-24

Lab ID: 24050347-003 **Client Sample ID:** L1-20ft.

Matrix: GROUNDWATER **Collection Date:** 05/02/2024 14:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1080**	mg/L	50	05/09/2024 11:29	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**7.86**		1	05/06/2024 14:12	R346778
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.50**	mg/L	1	05/10/2024 10:28	R347102
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**122**	mg/L	10	05/07/2024 19:34	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.018	0.040	BJ	**0.027**	mg/L	200	05/14/2024 15:42	222470
Arsenic	NELAP	0.0080	0.0200		**0.717**	mg/L	100	05/10/2024 19:09	222470
Barium	NELAP	0.0140	0.0200		**3.48**	mg/L	100	05/10/2024 19:09	222470
Beryllium	NELAP	0.0050	0.0200		**0.0542**	mg/L	100	05/14/2024 4:39	222470
Boron	NELAP	0.370	1.00		**4.91**	mg/L	200	05/14/2024 15:42	222470
Cadmium	NELAP	0.0060	0.0400		**0.0776**	mg/L	200	05/14/2024 15:42	222470
Chromium	NELAP	0.0280	0.0600		**0.993**	mg/L	200	05/14/2024 15:42	222470
Cobalt	NELAP	0.0046	0.0400		**0.154**	mg/L	200	05/14/2024 15:42	222470
Lead	NELAP	0.0120	0.0200	B	**0.655**	mg/L	100	05/10/2024 19:09	222470
Lithium	*	0.0290	0.0600		**0.172**	mg/L	100	05/14/2024 4:39	222470
Molybdenum	NELAP	0.0120	0.0300		**0.161**	mg/L	100	05/17/2024 12:28	222470
Selenium	NELAP	0.0120	0.0200		**0.0906**	mg/L	100	05/10/2024 19:09	222470
Thallium	NELAP	0.0190	0.0400		**< 0.0400**	mg/L	100	05/10/2024 19:09	222470

Elevated reporting limit for Sb & Tl due to matrix interference.

Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.

Sample result for Pb exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.

SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00198**	mg/L	1	05/20/2024 15:09	223152
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050347
Report Date: 23-May-24

Carrier: Paul Reeves
Received By: LM

Completed by: Amber Dilallo
On: 03-May-24

Reviewed by: Ellie Hopkins
On: 03-May-24

Pages to follow: Chain of custody 1 Extra pages included 15

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 3.7
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☐	No ☑		
Reported field parameters measured:	Field ☐	Lab ☑	NA ☐	

Sample analyses to be measured in the field and/or within 15 minutes of collection were analyzed in the lab as soon as practicable. These analyses include Chlorine (demand, free and/or residual), Carbon Dioxide, Dissolved Oxygen, Ferrous Iron, pH, and Sulfite.

Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Any No responses must be detailed below or on the COC.

pH strip #96651. - amberdilallo - 5/3/2024 2:40:59 PM

Samples were preserved with Nitric Acid (97606) upon arrival at the laboratory. - amberdilallo - 5/3/2024 2:47:30 PM

Print PDF

CHAIN OF CUSTODY

Pg __ of __ Workorder # 24050347

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 3.2 °C #7
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: Added HNO_3 (97606) 96517

Client Comments:
email results to C. Grey and datamanagement@andrews-eng.com

TEKLAB
Courier

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No
Are these samples known to be hazardous? [ ] Yes [ ] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
CWLP Borings	S. Van Hook

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Rad 226 and 228	Sb, As, Ba, Be	B, Cd, Cr, Co, Pb, Se, Tl	Li, Mo	Hg	Cl, F+, SO4	pH							
24050347 001	L4 18ft.	5/2/24 8:40am	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓							
002	L3 - 20ft	5/2/24 10:15am	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓							
003	L1 - 20ft	5/2/24 2:50pm	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓							
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓							
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓							
			Groundwater	3	1																					
			Groundwater	3	1																					
			Groundwater	3	1																					
			Groundwater	3	1																					
			Groundwater	3	1																					
			Groundwater	3	1																					

Relinquished By	Date/Time	Received By	Date/Time
	5/2/24 7:00pm	AEI Secure Storage	5/2/24 19:00
AEI Secure Storage	5/3/24 07:28		5.3.24 0728
	5.3.24 1350		5/3/24 1350

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

May 22, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050347

Dear Shelly Hennessy:

Order No.: 24050485

Summit Environmental Technologies, Inc. received 3 sample(s) on 5/7/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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Case Narrative

WO#: **24050485**
Date: **5/22/2024**

CLIENT: TEKLAB Inc,
Project: 24050347

WorkOrder Narrative:
24050485: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence QC Notes:
LCS/LCSD-75217 Radium-228_DW(904.0): LCS and LCSD exhibited a high RPD, individually each LCS/LCSD meets the required criteria.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
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Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050485**
Date: **5/22/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24050485**

22-May-24

CLIENT: TEKLAB Inc,
Project: 24050347

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050485-001	24050347-001		5/2/2024 8:40:00 AM	5/7/2024 11:30:00 AM	Non-Potable Water
24050485-002	24050347-002		5/2/2024 10:15:00 AM	5/7/2024 11:30:00 AM	Non-Potable Water
24050485-003	24050347-003		5/2/2024 2:50:00 PM	5/7/2024 11:30:00 AM	Non-Potable Water

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DATES REPORT

WO#: **24050485**

22-May-24

Client: TEKLAB Inc,

Project: 24050347

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050485-001A	24050347-001	5/2/2024 8:40:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM
24050485-002A	24050347-002	5/2/2024 10:15:00 AM		Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM
24050485-003A	24050347-003	5/2/2024 2:50:00 PM		Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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Analytical Report

(consolidated)

WO#: **24050485**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 8:40:00 AM

Project: 24050347

Lab ID: 24050485-001

Matrix: NON-POTABLE WATER

Client Sample ID: 24050347-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.170	1	5/21/2024 10:28:00 AM
Yield	0.980					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	1.05	1.00		pCi/L	± 0.400	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **24050485**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 10:15:00 AM

Project: 24050347

Lab ID: 24050485-002

Matrix: NON-POTABLE WATER

Client Sample ID: 24050347-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	2.50	2.00		pCi/L	± 0.480	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	2.00		pCi/L	± 0.720	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050485**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 2:50:00 PM

Project: 24050347

Lab ID: 24050485-003

Matrix: NON-POTABLE WATER

Client Sample ID: 24050347-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.25		pCi/L	± 0.230	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.25		pCi/L	± 0.380	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050485**

22-May-24

Client: TEKLAB Inc,
Project: 24050347 **BatchID:** **75217**

Sample ID: **24050495-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	1.00			0	0			1.000	0		

Sample ID: **24050495-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050485**

22-May-24

Client: TEKLAB Inc,
Project: 24050347 **BatchID:** **75217**

Sample ID: **MB-75217**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **PBW**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040004**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-75217**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **LCSW**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040005**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.36	1.00	5.000	0	67.2	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-75217**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **LCSS02**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.00	1.00	5.000	0	100	50	130	3.360	39.2	20	R
Yield	0.960			0	0			1.000	4.08		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050485**

22-May-24

Client: TEKLAB Inc,
Project: 24050347 **BatchID:** **75217**

Sample ID: **24050495-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040150**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Sample ID: **24050495-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040152**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050485**

22-May-24

Client: TEKLAB Inc,
Project: 24050347 **BatchID:** **75217**

Sample ID: **MB-75217**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **PBW**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040143**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.980										

Sample ID: **LCS-75217**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **LCSW**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040144**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.38	1.00	5.000	0	87.6	70	130				

Sample ID: **LCSD-75217**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **LCSS02**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040145**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.67	1.00	5.000	0	93.4	70	130	4.380	6.41	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: Client QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Project# 24050347

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36229 Phone: (618) 344-1004 ext. 43

24050485

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228	COM	pH										
	24050347-001	05/02/2024 0840	HNO3	Groundwater	✔	37	4										
	24050347-002	05/02/2024 1015	HNO3	Groundwater	✔	20	7										
	24050347-003	05/02/2024 1450	HNO3	Groundwater	✔	20	5										
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													

*Relinquished By	Date/Time	Received By	Date/Time
	5/3/24		
		5/7/24 1130 FedEx ground cooler, no ice 19.5-0.2=19.7	

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights.

SubCocRevA

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050485 RcptNo: 1

Logged by:	Christina N. Gemma	5/7/2024 11:30:00 AM	C. Gemma
Completed By:	Christina N. Gemma	5/7/2024 5:22:56 PM	C. Gemma
Reviewed By:	Jennifer Woolf	5/8/2024 10:54:58 AM	Jennifer Woolf

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date: Signed By:			
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☑	No ☐	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

pH received >2, one of two containers of 003 received broken (no volume remains).

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050485 RcptNo: 1

June 18, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050429

Dear Eric Staley:

TEKLAB, INC received 1 sample on 5/6/2024 12:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050429
Report Date: 18-Jun-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	8
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050429

Client Project: CWLP Borings **Report Date:** 18-Jun-24

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24050429
Client Project: CWLP Borings
Report Date: 18-Jun-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Client: City Water, Light & Power

Work Order: 24050429

Client Project: CWLP Borings

Report Date: 18-Jun-24

Cooler Receipt Temp: 3.5 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 24050429
Client Project: CWLP Borings
Report Date: 18-Jun-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 24050429

Client Project: CWLP Borings **Report Date:** 18-Jun-24

Lab ID: 24050429-001 **Client Sample ID:** L5 20ft.

Matrix: GROUNDWATER **Collection Date:** 05/03/2024 8:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	614	1000		**2620**	mg/L	100	05/10/2024 12:38	R347112
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**7.62**		1	05/07/2024 13:01	R346852
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**1.32**	mg/L	1	05/10/2024 11:43	R347102
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**202**	mg/L	10	05/07/2024 19:42	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0450	0.100	B	**< 0.100**	mg/L	500	05/14/2024 4:45	222636
Arsenic	NELAP	0.0400	0.100		**2.58**	mg/L	500	05/14/2024 4:45	222636
Barium	NELAP	0.0350	0.0500		**1.60**	mg/L	250	05/14/2024 4:51	222636
Beryllium	NELAP	0.0125	0.0500		**0.0911**	mg/L	250	05/14/2024 4:51	222636
Boron	NELAP	0.925	2.50		**28.9**	mg/L	500	05/14/2024 15:30	222636
Cadmium	*	0.0150	0.100		**0.296**	mg/L	500	05/14/2024 4:45	222636
Chromium	NELAP	0.0750	0.150		**1.81**	mg/L	500	05/14/2024 4:45	222636
Cobalt	NELAP	0.0115	0.100		**0.296**	mg/L	500	05/14/2024 4:45	222636
Lead	NELAP	0.0300	0.0500		**2.78**	mg/L	250	05/14/2024 4:51	222636
Lithium	*	0.145	0.300		**0.613**	mg/L	500	05/14/2024 15:30	222636
Molybdenum	NELAP	0.0600	0.150		**0.282**	mg/L	500	05/14/2024 4:45	222636
Selenium	NELAP	0.0600	0.100		**0.205**	mg/L	500	05/14/2024 4:45	222636
Thallium	NELAP	0.0475	0.100		**< 0.100**	mg/L	250	05/14/2024 4:51	222636

Sample result for Sb exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.

LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.

SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00559**	mg/L	1	05/15/2024 15:55	222725
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	06/13/2024 0:00	R348957
Radium-228	*	0	0		**See Attached**	pci/L	1	06/13/2024 0:00	R348957

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050429
Report Date: 18-Jun-24

Carrier: Paul Reeves
Received By: NR

Completed by: Amber Dilallo
On: 06-May-24

Reviewed by: Ellie Hopkins
On: 06-May-24

Pages to follow: Chain of custody 1 Extra pages included 15

Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐	Temp °C 3.5
Type of thermal preservation?	None	☐	Ice	☑	Blue Ice	☐	Dry Ice ☐
Chain of custody present?	Yes	☑	No	☐			
Chain of custody signed when relinquished and received?	Yes	☑	No	☐			
Chain of custody agrees with sample labels?	Yes	☑	No	☐			
Samples in proper container/bottle?	Yes	☑	No	☐			
Sample containers intact?	Yes	☑	No	☐			
Sufficient sample volume for indicated test?	Yes	☑	No	☐			
All samples received within holding time?	Yes	☐	No	☑			
Reported field parameters measured:	Field	☐	Lab	☑	NA	☐	

Sample analyses to be measured in the field and/or within 15 minutes of collection were analyzed in the lab as soon as practicable. These analyses include Chlorine (demand, free and/or residual), Carbon Dioxide, Dissolved Oxygen, Ferrous Iron, pH, and Sulfite.

Container/Temp Blank temperature in compliance?	Yes	☑	No	☐			
Water – at least one vial per sample has zero headspace?	Yes	☐	No	☐	No VOA vials	☑	
Water - TOX containers have zero headspace?	Yes	☐	No	☐	No TOX containers	☑	
Water - pH acceptable upon receipt?	Yes	☐	No	☑	NA	☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes	☐	No	☐	NA	☑	

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Any No responses must be detailed below or on the COC.

Sample was preserved with Nitric Acid (97606) upon arrival at the laboratory. - amberdilallo - 5/6/2024 1:07:35 PM

pH strip #96651. - amberdilallo - 5/6/2024 1:07:37 PM

Print PDF

CHAIN OF CUSTODY

Pg __ of __ Workorder # 24050429

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 3.5 °C LG#7
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: Added HNO3 (971 lot) pH ✓ 9/16/24 SCM

TEKLAB

Client Comments: Courier
email results to C. Grey and datamanagement@andrews-eng.com

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No
Are these samples known to be hazardous? [ ] Yes [ ] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
CWLP Borings	S. Van Hook

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Rad 226 and 228	Sb, As, Ba, Be	B, Cd, Cr, Co, Pb, Se, Tl	Li, Mo	Hg	Cl, F+, SO4	pH
24050429-001	LS 20ft.	5/3/24 8:30AM	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														

Relinquished By	Date/Time	Received By	Date/Time
Steve Van Hook	5/3/2024 12:30 pm	Paul M Yo	5.6.24 0820
Paul M Yo	5.6.24 1200	Mitch Reed	5/6/24 1200

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

MK 5/6

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

June 18, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050429

Dear Shelly Hennessy:

Order No.: 24050786

Summit Environmental Technologies, Inc. received 1 sample(s) on 5/9/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **24050786**
Date: **6/18/2024**

CLIENT: TEKLAB Inc,
Project: 24050429

WorkOrder Narrative:
24050786: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44&
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050786**
Date: **6/18/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24050786**

18-Jun-24

CLIENT: TEKLAB Inc,
Project: 24050429

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050786-001	24050429-001		5/3/2024 8:30:00 AM	5/9/2024 11:40:00 AM	Non-Potable Water

Summit Environmental Technologies, Inc.
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DATES REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,

Project: 24050429

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050786-001A	24050429-001	5/3/2024 8:30:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		6/10/2024 3:03:24 PM	6/14/2024 11:38:39 AM
				Radium-226 (EPA 903.0)		5/29/2024 12:23:00 PM	6/5/2024 10:01:00 AM
				Radium-228 (EPA 904.0)		6/10/2024 3:03:24 PM	6/13/2024 2:27:54 PM
				Radium-228 (EPA 904.0)		5/29/2024 12:23:00 PM	6/4/2024 2:54:00 PM

Original

Summit Environmental Technologies, Inc.
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Analytical Report

(consolidated)

WO#: **24050786**

Date Reported: **6/18/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/3/2024 8:30:00 AM

Project: 24050429

Lab ID: 24050786-001

Matrix: NON-POTABLE WATER

Client Sample ID: 24050429-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	12.3	5.00	*	pCi/L	± 1.15	1	6/14/2024 11:38:39 AM
Yield	1.00					1	6/14/2024 11:38:39 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	5.44	5.00	*	pCi/L	± 3.56	1	6/13/2024 2:27:54 PM
Yield	0.580					1	6/13/2024 2:27:54 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
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QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **MB-75975**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187502**
Client ID: **PBW**	Batch ID: **75975**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/13/2024**	SeqNo: **5081626**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-75975**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187502**
Client ID: **LCSW**	Batch ID: **75975**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/13/2024**	SeqNo: **5081627**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.51	1.00	5.000	0	70.2	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-75975**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187502**
Client ID: **LCSS02**	Batch ID: **75975**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/13/2024**	SeqNo: **5081628**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.55	1.00	5.000	0	71.0	50	130	3.510	1.13	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **RLC-75975**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187502**
Client ID: **BatchQC**	Batch ID: **75975**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/13/2024**	SeqNo: **5081630**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.97	1.00	1.000	0	197	50	150				S

Sample ID: **RLCD-75975**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187502**
Client ID: **BatchQC**	Batch ID: **75975**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/13/2024**	SeqNo: **5081631**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	0	50	150				S

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
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QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **24060255-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/10/2024** RunNo: **187502**
Client ID: **BatchQC** Batch ID: **75975** TestNo: **E904.0** **E903-904** Analysis Date: **6/13/2024** SeqNo: **5081633**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **MB-75975**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **PBW**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75975**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **LCSW**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081732**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.85	1.00	5.000	0	97.0	70	130				

Sample ID: **LCSD-75975**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **LCSS02**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.36	1.00	5.000	0	107	70	130	4.850	9.99	20	

Sample ID: **RLC-75975**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **BatchQC**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **RLC-75975**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **BatchQC**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.10	1.00	1.000	0	110	50	150				

Sample ID: **RLCD-75975**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **BatchQC**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081736**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.07	1.00	1.000	0	107	50	150				

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **24060255-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/10/2024** RunNo: **187509**
Client ID: **BatchQC** Batch ID: **75975** TestNo: **E903.0** **E903-904** Analysis Date: **6/14/2024** SeqNo: **5081738**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **24060255-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/10/2024** RunNo: **187509**
Client ID: **BatchQC** Batch ID: **75975** TestNo: **E903.0** **E903-904** Analysis Date: **6/14/2024** SeqNo: **5081740**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

240507866

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

18.4-0.2: Cooler Temp: 18.2 Sampler: Client QC Level: 2

Fedex, cooler

Project# 24050429

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36235 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228											
							cpm				pH					
	24050429-001	5/3/24 0830	Unpres	Groundwater	✔		32.40				1.1					
			Unpres	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												

*Relinquished By	Date/Time	Received By	Date/Time
Amber DiCello	5/6/24 1200		5/9/24, 1140

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050786 RcptNo: 1

Logged by:	Tegan A. Richards	5/9/2024 11:40:00 AM	Tegan Richards
Completed By:	Tegan A. Richards	5/10/2024 12:21:48 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	5/10/2024 2:48:57 PM	Jennifer Woolf

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☐	No ☑	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date: Signed By:			
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Containers are preserved, CoC states unpreserved

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050786 RcptNo: 1

May 28, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050235

Dear Eric Staley:

TEKLAB, INC received 4 samples on 5/2/2024 1:11:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Impoundment Monitoring and Assessment Wells

First Quarter 2022

March 16, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 22011434

Dear Eric Staley:

TEKLAB, INC received 15 samples on 2/17/2022 6:23:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22011434
Report Date: 16-Mar-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	22
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 22011434

Client Project: Ash Pond Monitoring Wells **Report Date:** 16-Mar-22

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 22011434

Client Project: Ash Pond Monitoring Wells
Report Date: 16-Mar-22

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 22011434
Client Project: Ash Pond Monitoring Wells
Report Date: 16-Mar-22

Cooler Receipt Temp: 2.8 °C

An employee of Teklab, Inc. collected the sample(s). AP-10 could not be collected; the sampling point was frozen.

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 22011434

Client Project: Ash Pond Monitoring Wells

Report Date: 16-Mar-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 22011434

Client Project: Ash Pond Monitoring Wells **Report Date:** 16-Mar-22

Lab ID: 22011434-001 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 02/16/2022 13:34

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	02/16/2022 13:34	R307535
Depth to water	*	-5.00		**7.16**	ft	1	02/16/2022 13:34	R307535
Depth to water from measuring point	*	0		**9.86**	ft	1	02/16/2022 13:34	R307535
Elevation of groundwater surface	*	0		**529.64**	ft	1	02/16/2022 13:34	R307535
Measuring Point Elevation	*	0		**539.50**	ft	1	02/16/2022 13:34	R307535
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	02/16/2022 13:34	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.6**	NTU	1	02/16/2022 13:34	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.4**	°F	1	02/16/2022 13:34	R307535
SW-846 9040B								
pH, Field	*	1.00		**7.27**		1	02/16/2022 13:34	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1090**	µmhos/cm @25C	1	02/16/2022 13:34	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**408**	mg/L	1	02/17/2022 12:54	R307297
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**10**	mg/L	1	02/22/2022 19:39	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.47**	mg/L	1	02/17/2022 9:55	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**29**	mg/L	1	02/22/2022 19:39	R307406
Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.178**	mg/L	1	02/18/2022 15:35	187816
Barium	NELAP	0.0025		**0.154**	mg/L	1	02/18/2022 15:35	187816
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/18/2022 15:35	187816
Boron	NELAP	0.0200		**0.179**	mg/L	1	02/18/2022 15:35	187816
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/18/2022 15:35	187816
Calcium	NELAP	0.100		**72.7**	mg/L	1	02/18/2022 15:35	187816
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/18/2022 15:35	187816
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/18/2022 15:35	187816
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/18/2022 15:35	187816
Lithium	NELAP	0.0050		**0.0066**	mg/L	1	02/18/2022 15:35	187816
Molybdenum	NELAP	0.0100		**0.0103**	mg/L	1	02/18/2022 15:35	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	03/05/2022 3:09	187816
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2022 2:56	187816
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2022 2:56	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/17/2022 14:07	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		**See attached**	pci/L	1	03/03/2022 0:00	R308076

Client: City Water, Light & Power
Work Order: 22011434
Client Project: Ash Pond Monitoring Wells
Report Date: 16-Mar-22
Lab ID: 22011434-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 02/15/2022 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	02/15/2022 11:31	R307535
Depth to water	*	-5.00		**3.71**	ft	1	02/15/2022 11:31	R307535
Depth to water from measuring point	*	0		**6.21**	ft	1	02/15/2022 11:31	R307535
Elevation of groundwater surface	*	0		**529.89**	ft	1	02/15/2022 11:31	R307535
Measuring Point Elevation	*	0		**536.10**	ft	1	02/15/2022 11:31	R307535
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	02/15/2022 11:31	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.9**	NTU	1	02/15/2022 11:31	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.2**	°F	1	02/15/2022 11:31	R307535
SW-846 9040B								
pH, Field	*	1.00		**6.43**		1	02/15/2022 11:31	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2320**	µmhos/cm @25C	1	02/15/2022 11:31	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**1310**	mg/L	1	02/17/2022 12:56	R307297
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**583**	mg/L	20	02/22/2022 19:56	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.24**	mg/L	1	02/17/2022 9:58	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**36**	mg/L	1	02/22/2022 19:49	R307406
Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	02/18/2022 15:38	187816
Barium	NELAP	0.0025		**0.0721**	mg/L	1	02/18/2022 15:38	187816
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/18/2022 15:38	187816
Boron	NELAP	0.0200		**4.68**	mg/L	1	02/18/2022 15:38	187816
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/18/2022 15:38	187816
Calcium	NELAP	0.100		**265**	mg/L	1	02/18/2022 15:38	187816
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/18/2022 15:38	187816
Cobalt	NELAP	0.0050		**0.0102**	mg/L	1	02/18/2022 15:38	187816
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/18/2022 15:38	187816
Lithium	NELAP	0.0050		**0.0057**	mg/L	1	02/18/2022 15:38	187816
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/18/2022 15:38	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	03/05/2022 3:23	187816
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2022 3:11	187816
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2022 3:11	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/17/2022 14:12	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		**See attached**	pci/L	1	03/03/2022 0:00	R308076

Client: City Water, Light & Power
Work Order: 22011434
Client Project: Ash Pond Monitoring Wells
Report Date: 16-Mar-22
Lab ID: 22011434-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 02/15/2022 11:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	02/15/2022 11:08	R307535
Depth to water	*	-5.00		**6.72**	ft	1	02/15/2022 11:08	R307535
Depth to water from measuring point	*	0		**8.42**	ft	1	02/15/2022 11:08	R307535
Elevation of groundwater surface	*	0		**526.98**	ft	1	02/15/2022 11:08	R307535
Measuring Point Elevation	*	0		**535.40**	ft	1	02/15/2022 11:08	R307535
Measuring Point Height Above Land Surface	*	0		**1.70**	ft	1	02/15/2022 11:08	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.3**	NTU	1	02/15/2022 11:08	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.2**	°F	1	02/15/2022 11:08	R307535
SW-846 9040B								
pH, Field	*	1.00		**6.60**		1	02/15/2022 11:08	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1590**	µmhos/cm @25C	1	02/15/2022 11:08	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**882**	mg/L	1	02/17/2022 12:57	R307297
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**410**	mg/L	10	02/22/2022 20:02	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.21**	mg/L	1	02/17/2022 10:00	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**42**	mg/L	1	02/22/2022 19:57	R307406
Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	02/18/2022 15:40	187816
Barium	NELAP	0.0025		**0.0802**	mg/L	1	02/18/2022 15:40	187816
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/18/2022 15:40	187816
Boron	NELAP	0.0200		**15.8**	mg/L	1	02/18/2022 15:40	187816
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/18/2022 15:40	187816
Calcium	NELAP	0.100		**150**	mg/L	1	02/18/2022 15:40	187816
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/18/2022 15:40	187816
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/18/2022 15:40	187816
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/18/2022 15:40	187816
Lithium	NELAP	0.0050		**0.0053**	mg/L	1	02/18/2022 15:40	187816
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/18/2022 15:40	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	03/05/2022 3:29	187816
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2022 3:19	187816
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2022 3:19	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/17/2022 14:14	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		**See attached**	pci/L	1	03/03/2022 0:00	R308076

Client: City Water, Light & Power **Work Order:** 22011434

Client Project: Ash Pond Monitoring Wells **Report Date:** 16-Mar-22

Lab ID: 22011434-008 **Client Sample ID:** AP-7

Matrix: GROUNDWATER **Collection Date:** 02/15/2022 14:33

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	02/15/2022 14:33	R307535
Depth to water	*	-5.00		**8.23**	ft	1	02/15/2022 14:33	R307535
Depth to water from measuring point	*	0		**10.89**	ft	1	02/15/2022 14:33	R307535
Elevation of groundwater surface	*	0		**528.13**	ft	1	02/15/2022 14:33	R307535
Measuring Point Elevation	*	0		**539.02**	ft	1	02/15/2022 14:33	R307535
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	02/15/2022 14:33	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.1**	NTU	1	02/15/2022 14:33	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.1**	°F	1	02/15/2022 14:33	R307535
SW-846 9040B								
pH, Field	*	1.00		**7.20**		1	02/15/2022 14:33	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1140**	µmhos/cm @25C	1	02/15/2022 14:33	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**440**	mg/L	1	02/21/2022 14:46	R307467
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	02/22/2022 20:40	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.55**	mg/L	1	02/17/2022 10:07	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		**64**	mg/L	2	02/22/2022 20:45	R307406
Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	02/18/2022 15:59	187816
Barium	NELAP	0.0025		**0.125**	mg/L	1	02/18/2022 15:59	187816
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/18/2022 15:59	187816
Boron	NELAP	0.0200		**0.381**	mg/L	1	02/18/2022 15:59	187816
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/18/2022 15:59	187816
Calcium	NELAP	0.100		**62.9**	mg/L	1	02/18/2022 15:59	187816
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/18/2022 15:59	187816
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/18/2022 15:59	187816
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/18/2022 15:59	187816
Lithium	NELAP	0.0050		**0.0090**	mg/L	1	02/18/2022 15:59	187816
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/18/2022 15:59	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	03/05/2022 3:56	187816
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2022 4:34	187816
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2022 4:34	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/17/2022 14:33	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		**See attached**	pci/L	1	03/03/2022 0:00	R308076

Client: City Water, Light & Power **Work Order:** 22011434

Client Project: Ash Pond Monitoring Wells **Report Date:** 16-Mar-22

Lab ID: 22011434-009 **Client Sample ID:** AP-8

Matrix: GROUNDWATER **Collection Date:** 02/15/2022 13:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	02/15/2022 13:12	R307535
Depth to water	*	-5.00		**3.51**	ft	1	02/15/2022 13:12	R307535
Depth to water from measuring point	*	0		**6.41**	ft	1	02/15/2022 13:12	R307535
Elevation of groundwater surface	*	0		**530.79**	ft	1	02/15/2022 13:12	R307535
Measuring Point Elevation	*	0		**537.20**	ft	1	02/15/2022 13:12	R307535
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	02/15/2022 13:12	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.0**	NTU	1	02/15/2022 13:12	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.1**	°F	1	02/15/2022 13:12	R307535
SW-846 9040B								
pH, Field	*	1.00		**6.91**		1	02/15/2022 13:12	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1320**	µmhos/cm @25C	1	02/15/2022 13:12	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**502**	mg/L	1	02/21/2022 14:59	R307467
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	02/22/2022 20:48	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.29**	mg/L	1	02/17/2022 10:30	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**26**	mg/L	1	02/22/2022 20:48	R307406
Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.0319**	mg/L	1	02/18/2022 16:21	187816
Barium	NELAP	0.0025		**0.355**	mg/L	1	02/18/2022 16:21	187816
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/18/2022 16:21	187816
Boron	NELAP	0.0200		**0.125**	mg/L	1	02/18/2022 16:21	187816
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/18/2022 16:21	187816
Calcium	NELAP	0.100	S	**100**	mg/L	1	02/18/2022 16:21	187816
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/18/2022 16:21	187816
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/18/2022 16:21	187816
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/18/2022 16:21	187816
Lithium	NELAP	0.0050		**0.0068**	mg/L	1	02/18/2022 16:21	187816
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/18/2022 16:21	187816
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	03/05/2022 4:02	187816
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2022 4:41	187816
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2022 4:41	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/17/2022 14:35	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	03/03/2022 0:00	R308076

Client: City Water, Light & Power
Work Order: 22011434
Client Project: Ash Pond Monitoring Wells
Report Date: 16-Mar-22
Lab ID: 22011434-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 02/15/2022 13:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		**See attached**	pci/L	1	03/03/2022 0:00	R308076

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22011434
Report Date: 16-Mar-22

Carrier: Joe Riley

Received By: EAH

Completed by: Mary E. Kemp
On: 17-Feb-22
Mary E. Kemp

Reviewed by: Elizabeth A. Hurley
On: 17-Feb-22
Elizabeth A. Hurley

Pages to follow: Chain of custody 2 Extra pages included 52

Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐	Temp °C 2.8
Type of thermal preservation?	None	☐	Ice	☑	Blue Ice	☐	Dry Ice ☐
Chain of custody present?	Yes	☑	No	☐			
Chain of custody signed when relinquished and received?	Yes	☑	No	☐			
Chain of custody agrees with sample labels?	Yes	☑	No	☐			
Samples in proper container/bottle?	Yes	☑	No	☐			
Sample containers intact?	Yes	☑	No	☐			
Sufficient sample volume for indicated test?	Yes	☑	No	☐			
All samples received within holding time?	Yes	☑	No	☐			
Reported field parameters measured:	Field	☑	Lab	☐	NA	☐	
Container/Temp Blank temperature in compliance?	Yes	☑	No	☐			
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.							
Water – at least one vial per sample has zero headspace?	Yes	☐	No	☐	No VOA vials	☑	
Water - TOX containers have zero headspace?	Yes	☐	No	☐	No TOX containers	☑	
Water - pH acceptable upon receipt?	Yes	☐	No	☑	NA	☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes	☐	No	☐	NA	☑	

Any No responses must be detailed below or on the COC.

pH strip #78011. - PRY/MKemp - 2/17/2022 8:32:35 AM

Additional nitric acid (80456) was needed for one container each in AP-4, AP-13, and AP-14 upon arrival at the laboratory. - MKemp - 2/17/2022 8:32:57 AM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 22011434

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 2.8 °C LTG
Preserved in: [ ] LAB [X] FIELD
FOR LAB USE ONLY 1
LAB NOTES: PHV 7801. RLY 2/17/22
Additional HNO3 (8045G) to 1 of 2 AP-4, AP-13, AP-14 MEK 2/17/22

Client Comments: AP10-Ice stuck near top; Needs to thaw
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [X] No
Are these samples known to be hazardous? [ ] Yes [X] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [X] Yes [X] No Permit on file

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
J. RILEY A. BRINES

RESULTS REQUESTED
[X] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
22011434-001	RW-3	02/16/22 1334	Groundwater	1	3								✓	✓	✓	✓	✓	✓
002	AP-1	02/15/22 1155	Groundwater	1	3								✓	✓	✓	✓	✓	✓
003	AP-2	02/15/22 1139	Groundwater	1	3								✓	✓	✓	✓	✓	✓
004	AP-3	02/15/22 1108	Groundwater	1	3								✓	✓	✓	✓	✓	✓
005	AP-4	02/16/22 1005	Groundwater	1	3								✓	✓	✓	✓	✓	✓
006	AP-5	02/16/22 1037	Groundwater	1	3								✓	✓	✓	✓	✓	✓
007	AP-6	02/15/22 1346	Groundwater	1	3								✓	✓	✓	✓	✓	✓
008	AP-7	02/15/22 1433	Groundwater	1	3								✓	✓	✓	✓	✓	✓
009	AP-8	02/15/22 1317	Groundwater	1	3								✓	✓	✓	✓	✓	✓
010	AP-9	02/15/22 1507	Groundwater	1	3								✓	✓	✓	✓	✓	✓
011	AP-10	NA	Groundwater	1	3								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	02/17/22 0623		2/17/22 0623

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

RLY 2/17/22

Print PDF

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 22011434

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

Client Comments:

*elevations, pH, conductivity, temperature

**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo

Quarterly monitoring

PROJECT NAME/NUMBER

Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED

☑ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
22011434-012	AP-11	02/16/22 1251	Groundwater	1	3								✔	✔	✔	✔	✔	✔
013	AP-12	02/16/22 1257	Groundwater	1	3								✔	✔	✔	✔	✔	✔
014	AP-13	02/16/22 1134	Groundwater	1	3								✔	✔	✔	✔	✔	✔
015	AP-14	02/16/22 0934	Groundwater	1	3								✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	02/17/22 0623	Elizabeth A Hurley	2/17/22 0623

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Well ID								Final	Units
RW3	DTW	9.86	14.98	16.05	17.05			9.86	ft
	DTB								ft
	MP Elev								ft
	Time	1313	1328	1331	1334			1334	
	Temp		13.1	13	13			13	C
	D.O.		0.49	0.74	0.72			0.72	Mg/l
	Cond		1087	1090	1094			1094	uS/cm
	pH		7.28	7.28	7.27			7.27	
	Orp		-136.2	-138	-140.2			-140.2	mV
	Turbidity		9.99	6.96	5.63			5.63	NTU
	Drawdn		5.12	1.07	1			1	ft
	Volume		0.65	0.78	0.91			0.91	Gallon

CLEAR Field Filtered
NO COLOR
NO ODOR

Bladder Pump

Well ID						Final	Units
AP2	DTW	6.21	6.85	6.85	6.85	6.85	ft
	DTB						ft
	MP Elev						ft
	Time	1116	1125	1128	1131	1131	
	Temp		12.8	12.9	12.9	12.9	C
	D.O.		0.26	0.21	0.18	0.18	Mg/l
	Cond		2241	2281	2319	2319	uS/cm
	pH		6.45	6.45	6.43	6.43	
	Orp		-5.6	-11.1	-13.5	-13.5	mV
	Turbidity		6.78	3.55	5.92	5.92	NTU
	Drawdn		0.64	0	0	0	ft
	Volume		0.39	0.52	0.65	0.65	Gallon

CLEAR
NO COLOR
NO ODOR

Bladder Pump

Well ID						Final	Units
AP3	DTW	8.42	8.42	8.42	8.42	8.42	ft
	DTB						ft
	MP Elev						ft
	Time	1044	1102	1105	1108	1108	
	Temp		12.8	12.4	12.9	12.9	C
	D.O.		0.43	0.46	0.41	0.41	Mg/l
	Cond		1595	1597	1594	1594	uS/cm
	pH		6.62	6.62	6.6	6.6	
	Orp		-53.9	-58.4	-61.5	-61.5	mV
	Turbidity		13.76	13.98	8.29	8.29	NTU
	Drawdn		0	0	0	0	ft
	Volume		0.78	0.91	1.04	1.04	Gallon

CLEAR
NO COLOR
NO ODOR

Bladder Pump

Well ID						Final	Units
AP7	DTW	10.89	14.32	15.35	16.2	16.2	ft
	DTB						ft
	MP Elev						ft
	Time	1421	1427	1430	1433	1433	
	Temp		12.1	12.2	12.3	12.3	C
	D.O.		0.5	0.38	0.31	0.31	Mg/l
	Cond		1131	1134	1136	1136	uS/cm
	pH		7.23	7.21	7.2	7.2	
	Orp		-53.8	-72.1	-84	-84	mV
	Turbidity		8.11	7.23	6.13	6.13	NTU
	Drawdn		3.43	1.03	0.85	0.85	ft
	Volume		0.26	0.39	0.52	0.52	Gallon

CLEAR
NO COLOR
NO ODOR

Sub Pump

Well ID						Final	Units
AP8	DTW	6.41	9.89	9.89	9.89	9.89	ft
	DTB						ft
	MP Elev						ft
	Time	1254	1306	1309	1312	1312	
	Temp		13.4	13.4	13.4	13.4	C
	D.O.		0.19	0.16	0.14	0.14	Mg/l
	Cond		1321	1321	1322	1322	uS/cm
	pH		6.92	6.91	6.91	6.91	
	Orp		-108.2	-115.4	-119.9	-119.9	mV
	Turbidity		10.87	12.9	8.01	8.01	NTU
	Drawdn		3.48	0	0	0	ft
	Volume		0.52	0.65	0.78	0.78	Gallon

CLEAR
NO COLOR
NO ODOR
Bladder Pump

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

March 09, 2022

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 22011434

Dear Shelly Hennessy:

Order No.: 22021386

Summit Environmental Technologies, Inc. received 14 sample(s) on 2/21/2022 for the analyses presented in the following report.

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 011, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **22021386**
Date: **3/9/2022**

CLIENT: TEKLAB Inc,
Project: 22011434

WorkOrder Narrative:
22021386: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

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All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Sample Notes:
22011434-014: One sample matrix is clear, the other sample has a "dirty" appearance through the bottle . The ID numbers on the the bottles both indicate 22011434-014B and both lids indicate "AP-13". Composite both bottles per client.

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Qualifiers and Acronyms

WO#: **22021386**
Date: **3/9/2022**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **22021386**
09-Mar-22

CLIENT: TEKLAB Inc,
Project: 22011434

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
22021386-001	22011434-001		2/16/2022 1:34:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-002	22011434-002		2/15/2022 11:55:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-003	22011434-003		2/15/2022 11:31:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-004	22011434-004		2/15/2022 11:08:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-005	22011434-005		2/16/2022 10:05:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-006	22011434-006		2/16/2022 10:37:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-007	22011434-007		2/15/2022 1:46:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-008	22011434-008		2/15/2022 2:33:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-009	22011434-009		2/15/2022 1:12:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-010	22011434-010		2/15/2022 3:01:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-011	22011434-012		2/16/2022 12:51:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-012	22011434-013		2/16/2022 12:17:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-013	22011434-014		2/16/2022 11:34:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-014	22011434-015		2/16/2022 9:34:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water

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DATES REPORT

WO#: **22021386**

09-Mar-22

Client: TEKLAB Inc,

Project: 22011434

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
22021386-001A	22011434-001	2/16/2022 1:34:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-002A	22011434-002	2/15/2022 11:55:00 AM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-003A	22011434-003	2/15/2022 11:31:00 AM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-004A	22011434-004	2/15/2022 11:08:00 AM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-005A	22011434-005	2/16/2022 10:05:00 AM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-006A	22011434-006	2/16/2022 10:37:00 AM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
				Radium-228 (EPA 904.0)		3/7/2022 1:09:18 PM	3/8/2022 4:26:09 PM
22021386-007A	22011434-007	2/15/2022 1:46:00 PM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-008A	22011434-008	2/15/2022 2:33:00 PM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-009A	22011434-009	2/15/2022 1:12:00 PM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-010A	22011434-010	2/15/2022 3:01:00 PM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-011A	22011434-012	2/16/2022 12:51:00 PM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM

Original

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DATES REPORT

WO#: **22021386**

09-Mar-22

Client: TEKLAB Inc,

Project: 22011434

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
22021386-012A	22011434-013	2/16/2022 12:17:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-013A	22011434-014	2/16/2022 11:34:00 AM		Radium-226 (EPA 903.0)		2/25/2022 12:41:09 PM	3/4/2022 3:02:37 PM
				Radium-228 (EPA 904.0)		2/25/2022 12:41:09 PM	3/4/2022 2:38:33 PM
22021386-014A	22011434-015	2/16/2022 9:34:00 AM		Radium-226 (EPA 903.0)		2/25/2022 12:41:09 PM	3/4/2022 3:02:37 PM
				Radium-228 (EPA 904.0)		2/25/2022 12:41:09 PM	3/4/2022 2:38:33 PM

Original

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Analytical Report

(consolidated)

WO#: **22021386**

Date Reported: **3/9/2022**

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-001
Client Sample ID: 22011434-001

Collection Date: 2/16/2022 1:34:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **JEB**
Radium-226	ND	1.00		pCi/L	± 0.13	1	3/3/2022 1:27:09 PM
Yield	0.880					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **JEB**
Radium-228	ND	1.00		pCi/L	± 0.84	1	3/3/2022 1:07:31 PM
Yield	0.990					1	3/3/2022 1:07:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22021386**

Date Reported: **3/9/2022**

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-003
Client Sample ID: 22011434-003

Collection Date: 2/15/2022 11:31:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **JEB**
Radium-226	ND	1.00		pCi/L	± 0.14	1	3/3/2022 1:27:09 PM
Yield	0.970					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **JEB**
Radium-228	ND	1.00		pCi/L	± 0.8	1	3/3/2022 1:07:31 PM
Yield	0.990					1	3/3/2022 1:07:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22021386**

Date Reported: **3/9/2022**

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-004
Client Sample ID: 22011434-004

Collection Date: 2/15/2022 11:08:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **JEB**
Radium-226	ND	1.00		pCi/L	± 0.08	1	3/3/2022 1:27:09 PM
Yield	0.910					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **JEB**
Radium-228	ND	1.00		pCi/L	± 0.83	1	3/3/2022 1:07:31 PM
Yield	0.880					1	3/3/2022 1:07:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22021386**

Date Reported: **3/9/2022**

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-008
Client Sample ID: 22011434-008

Collection Date: 2/15/2022 2:33:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **JEB**
Radium-226	ND	1.00		pCi/L	± 0.19	1	3/3/2022 1:27:09 PM
Yield	0.650					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **JEB**
Radium-228	ND	1.00		pCi/L	± 1.16	1	3/3/2022 1:07:31 PM
Yield	0.640					1	3/3/2022 1:07:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22021386**

Date Reported: **3/9/2022**

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-009
Client Sample ID: 22011434-009

Collection Date: 2/15/2022 1:12:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **JEB**
Radium-226	ND	1.00		pCi/L	± 0.19	1	3/3/2022 1:27:09 PM
Yield	0.640					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **JEB**
Radium-228	ND	1.00		pCi/L	± 1	1	3/3/2022 1:07:31 PM
Yield	0.720					1	3/3/2022 1:07:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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QC SUMMARY REPORT

WO#: **22021386**
09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55267**

Sample ID: **22021386-004ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140953**
Client ID: **22011434-004**	Batch ID: **55267**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717136**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.01	1.00		0	0			0.7900	24.4	30	
Yield	0.940			0	0			0.8800	6.59		

Sample ID: **22021386-003AMS**	SampType: **MS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140953**
Client ID: **22011434-003**	Batch ID: **55267**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717146**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	6.13	1.00	5.000	0	123	70	130				
Yield	0.740			0.9900	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22021386**

09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55267**

Sample ID: **MB-55267**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140953**
Client ID: **PBW**	Batch ID: **55267**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717126**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-55267**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140953**
Client ID: **LCSW**	Batch ID: **55267**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717127**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.81	1.00	5.000	0	76.2	70	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-55267**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140953**
Client ID: **LCSS02**	Batch ID: **55267**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717128**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.57	1.00	5.000	0	111	70	130	3.810	37.5	20	R
Yield	0.910			0	0			1.000	9.42		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22021386**

09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55267**

Sample ID: **RLC-55267**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140953**
Client ID: **BatchQC**	Batch ID: **55267**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.33	1.00	1.000	0	133	50	150				
Yield	1.00			0	0						

Sample ID: **RLCD-55267**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140953**
Client ID: **BatchQC**	Batch ID: **55267**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717148**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.12	1.00	1.000	0	112	50	150				
Yield	1.00			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22021386**

09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55267**

Sample ID: **22021386-003AMS**	SampType: **MS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140954**
Client ID: **22011434-003**	Batch ID: **55267**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717156**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.95	1.00	5.000	0	99.0	70	130				

Sample ID: **22021386-004ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140954**
Client ID: **22011434-004**	Batch ID: **55267**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717164**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.870							0.9100	4.49	0	

Sample ID: **22021386-006ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140954**
Client ID: **22011434-006**	Batch ID: **55267**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717167**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.990							0.8900	10.6	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22021386**

09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55267**

Sample ID: **MB-55267** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/24/2022** RunNo: **140954**
Client ID: **PBW** Batch ID: **55267** TestNo: **E903.0** **E903-904** Analysis Date: **3/3/2022** SeqNo: **3717150**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-55267** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/24/2022** RunNo: **140954**
Client ID: **LCSW** Batch ID: **55267** TestNo: **E903.0** **E903-904** Analysis Date: **3/3/2022** SeqNo: **3717151**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.03	1.00	5.000	0	101	70	130				

Sample ID: **LCSD-55267** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/24/2022** RunNo: **140954**
Client ID: **LCSS02** Batch ID: **55267** TestNo: **E903.0** **E903-904** Analysis Date: **3/3/2022** SeqNo: **3717152**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.90	1.00	5.000	0	118	70	130	5.030	15.9	20	

Sample ID: **RLC-55267** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/24/2022** RunNo: **140954**
Client ID: **BatchQC** Batch ID: **55267** TestNo: **E903.0** **E903-904** Analysis Date: **3/3/2022** SeqNo: **3717154**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22021386**

09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55267**

Sample ID: **RLC-55267**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140954**
Client ID: **BatchQC**	Batch ID: **55267**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717154**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.20	1.00	1.000	0	120	50	150				

Sample ID: **RLCD-55267**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/24/2022**	RunNo: **140954**
Client ID: **BatchQC**	Batch ID: **55267**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/3/2022**	SeqNo: **3717155**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.02	1.00	1.000	0	102	50	150				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22021386**

09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55268**

Sample ID: **MB-55268**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141026**
Client ID: **PBW**	Batch ID: **55268**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718896**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-55268**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141026**
Client ID: **LCSW**	Batch ID: **55268**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718897**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.87	1.00	5.000	0	97.4	70	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-55268**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141026**
Client ID: **LCSS02**	Batch ID: **55268**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.85	1.00	5.000	0	77.0	70	130	4.870	23.4	20	R
Yield	0.960			0	0			1.000	4.08		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22021386**
09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55268**

Sample ID: **RLCD-55268**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141026**
Client ID: **BatchQC**	Batch ID: **55268**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718900**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	92.0	50	150				

Sample ID: **RLC-55268**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141026**
Client ID: **BatchQC**	Batch ID: **55268**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718919**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	78.0	50	150				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22021386**
09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55268**

Sample ID: **22021112-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141026**
Client ID: **BatchQC**	Batch ID: **55268**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718904**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Sample ID: **22021114-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141026**
Client ID: **BatchQC**	Batch ID: **55268**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718906**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			0.8900	11.6		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22021386**

09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55268**

Sample ID: **MB-55268**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141033**
Client ID: **PBW**	Batch ID: **55268**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718970**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-55268**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141033**
Client ID: **LCSW**	Batch ID: **55268**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718971**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.26	1.00	5.000	0	85.2	70	130				

Sample ID: **LCSD-55268**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141033**
Client ID: **LCSS02**	Batch ID: **55268**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718972**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.14	1.00	5.000	0	103	70	130	4.260	18.7	20	

Sample ID: **RLC-55268**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141033**
Client ID: **BatchQC**	Batch ID: **55268**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718974**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22021386**
09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55268**

Sample ID: **RLC-55268**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141033**
Client ID: **BatchQC**	Batch ID: **55268**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3718974**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	67.0	50	150				

Sample ID: **RLCD-55268**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/25/2022**	RunNo: **141033**
Client ID: **BatchQC**	Batch ID: **55268**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/4/2022**	SeqNo: **3719007**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	61.0	50	150				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22021386**
09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55391**

Sample ID: **RLCD-55391**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/7/2022**	RunNo: **141176**
Client ID: **BatchQC**	Batch ID: **55391**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/8/2022**	SeqNo: **3722587**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.06	1.00	1.000	0	106	50	150				
Yield	1.00			0	0						

Sample ID: **22021558-001AMS**	SampType: **MS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/7/2022**	RunNo: **141176**
Client ID: **BatchQC**	Batch ID: **55391**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/8/2022**	SeqNo: **3722588**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.63	1.00	5.000	0.8400	95.8	70	130				
Yield	1.00			1.000	0						

Sample ID: **22021789-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/7/2022**	RunNo: **141176**
Client ID: **BatchQC**	Batch ID: **55391**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/8/2022**	SeqNo: **3722594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.05	1.00		0	0			0.9300	12.1	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22021386**
09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55391**

Sample ID: **22030062-003ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/7/2022**	RunNo: **141176**
Client ID: **BatchQC**	Batch ID: **55391**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/8/2022**	SeqNo: **3722596**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **MB-55391**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/7/2022**	RunNo: **141176**
Client ID: **PBW**	Batch ID: **55391**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/8/2022**	SeqNo: **3722603**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.940			0	0						

Sample ID: **LCS-55391**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/7/2022**	RunNo: **141176**
Client ID: **LCSW**	Batch ID: **55391**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/8/2022**	SeqNo: **3722604**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.99	1.00	5.000	0	99.8	70	130				
Yield	1.00			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22021386**
09-Mar-22

Client: TEKLAB Inc,
Project: 22011434 **BatchID:** **55391**

Sample ID: **RLC-55391** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/7/2022** RunNo: **141176**
Client ID: **BatchQC** Batch ID: **55391** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2022** SeqNo: **3722605**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.41	1.00	1.000	0	141	50	150				
Yield	0.910			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

TEKLAB, INC. Chain of Custody

22021386

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: J.Riley/A Bridges | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 22/228 by EPA 903.0/904.0 on your standard turn around time.
Batch QC is required for all analyses requested.

Project# 22011434

Contact: Shelly A. Hennessy | Email: shennessy@teklabinc.com
Requested Due Date: STD TAT | Billing/PO: 32473

Any changes to analysis/methods must be approved by Teklab, Inc.

Phone: (618) 344-1004 ext 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228											
-	22011434-001	2/16/22 1334	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 30, 25	pH 1,1			
-	22011434-002	2/15/22 1155	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 6, 23	pH 1,1			
	22011434-003	2/15/22 1131	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 30, 40	pH 1,1			
	22011434-004	2/15/22 1108	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 27, 30	pH 1,1			
	22011434-005	2/16/22 1005	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 33, 33	pH 1,1			
	22011434-006	2/16/22 1037	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 27, 27	pH 1,1			
	22011434-007	2/15/22 1346	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 23, 37	pH 1,1			
	22011434-008	2/15/22 1433	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 27, 30	pH 1,1			
	22011434-009	2/15/22 1312	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 37, 16	pH 1,1			
	22011434-010	2/15/22 1501	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 27, 10	pH 1,1			
	22011434-012	2/16/22 1251	HNO3	Groundwater	☑	☐	☐	☐	☐	☐	☐	Qpm 14, 23	pH 1,1			

*Relinquished By	Date/Time	Received By	Date/Time
Mary Kupp	2/17/22 10:00		2/21/22 13:15

13.4-1.0=12.4°C #1
6.7-1.0=5.7°C #2
4.5-1.0=3.5°C #3
8.0-1.0=7.0°C #4

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights. Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCoCRevA 3/2/2016

TEKLAB, INC. Chain of Custody

22021386

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: J.Riley/A Bridges | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 22/228 by EPA 903.0/904.0 on your standard turn around time.
Batch QC is required for all analyses requested.
Any changes to analysis/methods must be approved by Teklab, Inc.

Project# 22011434

Contact: Shelly A. Hennessy | Email: shennessy@teklabinc.com
Requested Due Date: STD TAT | Billing/PO: 32473 | Phone: (618) 344-1004 ext 36

PLEASE NOTE:
NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228												
	22011434-013	2/16/22 1217	HNO3	Groundwater	✔								clm	30,33	pH	1	
	22011434-014	2/16/22 1134	HNO3	Groundwater	✔								clm	16,4	pH	1	
	22011434-015	2/16/22 0934	HNO3	Groundwater	✔								clm	30,40	pH	1	
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													

*Relinquished By	Date/Time	Received By	Date/Time
Mary Kemp	2/17/22 1600		2/21/22 13:15

13.4-1.0=12.4°C #1
6.7-1.0=5.7°C #2
4.5-1.0=3.5°C #3
8.0-1.0=7.0°C #4

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SubCocRev#4 3/2/2016

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **22021386** RcptNo: **1**

Logged by:	**John T. Woolf**	**2/21/2022 1:15:00 PM**	John T. Woolf
Completed By:	**John T. Woolf**	**2/21/2022 4:04:18 PM**	John T. Woolf
Reviewed By:	**Jennifer Woolf**	**2/21/2022 4:27:41 PM**	Jennifer Woolf

Chain of Custody

1.	Were seals intact?	Yes ☑	No ☐	Not Present ☐
2.	Is Chain of Custody complete?	Yes ☐	No ☑	Not Present ☐
3.	How was the sample delivered?	FedEx		

Log In

4.	Coolers are present?	Yes ☐	No ☑	NA ☐
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☐	No ☑	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☐	No ☑	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

no
project address not included
combined?

Cooler Information

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **22021386** RcptNo: **1**

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	5.7	Good	Not Present			
3	3.5	Good	Not Present			
4	7.0	Good	Not Present			
cooler	12.4	Good	Not Present			

March 04, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Landfill Monitoring Wells **WorkOrder:** 22011433

Dear Eric Staley:

TEKLAB, INC received 12 samples on 2/17/2022 11:26:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 22011433
Report Date: 04-Mar-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	19
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 22011433

Client Project: Landfill Monitoring Wells **Report Date:** 04-Mar-22

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power

Work Order: 22011433

Client Project: Landfill Monitoring Wells

Report Date: 04-Mar-22

Qualifiers

- Unknown hydrocarbon

B - Analyte detected in associated Method Blank

C - RL shown is a Client Requested Quantitation Limit

E - Value above quantitation range

H - Holding times exceeded

I - Associated internal standard was outside method criteria

J - Analyte detected below quantitation limits

M - Manual Integration used to determine area response

ND - Not Detected at the Reporting Limit

R - RPD outside accepted recovery limits

S - Spike Recovery outside recovery limits

T - TIC(Tentatively identified compound)

X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 22011433
Report Date: 04-Mar-22

Cooler Receipt Temp: 5.6 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 22011433

Client Project: Landfill Monitoring Wells

Report Date: 04-Mar-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power
Work Order: 22011433
Client Project: Landfill Monitoring Wells
Report Date: 04-Mar-22
Lab ID: 22011433-009
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 02/16/2022 15:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	02/16/2022 15:28	R307533
Depth to water	*	-5.00		**11.39**	ft	1	02/16/2022 15:28	R307533
Depth to water from measuring point	*	0		**14.14**	ft	1	02/16/2022 15:28	R307533
Elevation of groundwater surface	*	0		**541.46**	ft	1	02/16/2022 15:28	R307533
Measuring Point Elevation	*	0		**555.60**	ft	1	02/16/2022 15:28	R307533
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.5**	°F	1	02/16/2022 15:28	R307533
SW-846 9040B								
pH, Field	*	1.00		**6.67**		1	02/16/2022 15:28	R307533
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2210**	µmhos/cm @25C	1	02/16/2022 15:28	R307533
EPA 600 350.1 (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.76**	mg/L	1	02/18/2022 18:16	R307238
EPA 600 353.2 R2.0 (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**0.102**	mg/L	1	02/18/2022 12:07	R307256
STANDARD METHODS 2540 C (DISSOLVED) 1997, 2011								
Total Dissolved Solids	*	50		**1080**	mg/L	2.5	02/22/2022 10:32	R307500
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	02/22/2022 11:17	187884
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	100		**340**	mg/L	10	02/22/2022 19:02	R307405
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	1		**40**	mg/L	1	02/22/2022 18:56	R307406
Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**7570**	µg/L	1	02/21/2022 14:06	187851
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/21/2022 14:06	187851
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	02/21/2022 14:06	187851
Magnesium	NELAP	0.050		**80.5**	mg/L	1	02/21/2022 14:06	187851
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	02/21/2022 14:06	187851
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**140**	µg/L	5	02/25/2022 7:12	187851
Lead	NELAP	1.0		**< 1.0**	µg/L	5	02/25/2022 7:12	187851
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/21/2022 15:37	187888

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 22011433

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 2.6 °C
Preserved in: ☑ LAB ☐ FIELD FOR LAB USE ONLY LT63
LAB NOTES: PH+V 78011/75846, Added HNO3 80456/H2SO4 80796/NaOH 78408, PM 2/17/22

Client Comments: *Dup ⊗Filter in Lab
Quarters 1, 3, & 4
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn Additional NaOH(78408) to all, Nitric acid (80456) R101 MEK 2/17/22

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER
Landfill Monitoring Wells

SAMPLE COLLECTOR'S NAME
J. RILEY A. BRIDGES

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)							
22011433 -001	R101	02/17/22 0730	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							
002	G110	02/17/22 0749	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							
003	R111	02/17/22 0845	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							
004	G112	02/17/22 0856	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							
005	G113 ⊗	02/17/22 0917	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							
006	G120	02/16/22 1450	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							
007	G121 * DUP	02/16/22 1406	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							
008	G122	02/16/22 1434	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							
009	AW-1	02/16/22 1528	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							
010	AW-2	02/16/22 1508	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							
011	RW-3	02/16/22 1374	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔							

Relinquished By	Date/Time	Received By	Date/Time
	02/17/22 1126		2.17.22 1126

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

PM 2/17/22

Well ID							Final	Units
AW1	DTW	14.14					14.14	ft
	DTB							ft
	MP Elev							ft
	Time	1513	1522	1525	1528		1528	
	Temp		13.6	13.6	13.6		13.6	C
	D.O.							Mg/l
	Cond		2203	2211	2210		2210	uS/cm
	pH		6.67	6.66	6.67		6.67	
	Orp							mV
	Turbidity							NTU
	Drawdn							ft
	Volume		0.39	0.52	0.65		0.65	Gallon

HIGH TURB
SUB PUMP
GREYISH
CLOUDY
NO ODOR

Field Filtered

Second Quarter 2022

July 13, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 22051753

Dear Eric Staley:

TEKLAB, INC received 15 samples on 6/2/2022 7:33:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22051753
Report Date: 13-Jul-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
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Laboratory Results	7
Receiving Check List	23
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 22051753

Client Project: Ash Pond Monitoring Wells **Report Date:** 13-Jul-22

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power

Work Order: 22051753

Client Project: Ash Pond Monitoring Wells

Report Date: 13-Jul-22

Qualifiers

- Unknown hydrocarbon

B - Analyte detected in associated Method Blank

C - RL shown is a Client Requested Quantitation Limit

E - Value above quantitation range

H - Holding times exceeded

I - Associated internal standard was outside method criteria

J - Analyte detected below quantitation limits

M - Manual Integration used to determine area response

ND - Not Detected at the Reporting Limit

R - RPD outside accepted recovery limits

S - Spike Recovery outside recovery limits

T - TIC(Tentatively identified compound)

X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22051753
Report Date: 13-Jul-22

Cooler Receipt Temp: 2.0 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22051753
Report Date: 13-Jul-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power
Work Order: 22051753
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jul-22
Lab ID: 22051753-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 06/01/2022 13:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	06/01/2022 13:45	R313064
Depth to water	*	-5.00		**6.50**	ft	1	06/01/2022 13:45	R313064
Depth to water from measuring point	*	0		**9.20**	ft	1	06/01/2022 13:45	R313064
Elevation of groundwater surface	*	0		**530.30**	ft	1	06/01/2022 13:45	R313064
Measuring Point Elevation	*	0		**539.50**	ft	1	06/01/2022 13:45	R313064
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	06/01/2022 13:45	R313064
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	06/01/2022 13:45	R313064
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.5**	°F	1	06/01/2022 13:45	R313064
SW-846 9040B								
pH, Field	*	1.00		**7.20**		1	06/01/2022 13:45	R313064
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**783**	µmhos/cm @25C	1	06/01/2022 13:45	R313064
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**428**	mg/L	1	06/02/2022 12:01	R312777
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		**< 20**	mg/L	2	06/07/2022 13:55	R312927
Elevated reporting limit due to matrix interference.								
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.49**	mg/L	1	06/08/2022 9:27	R312973
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**31**	mg/L	1	06/07/2022 13:29	R312931
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.138**	mg/L	1	06/03/2022 14:21	193267
Barium	NELAP	0.0025		**0.148**	mg/L	1	06/03/2022 14:21	193267
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/03/2022 14:21	193267
Boron	NELAP	0.0200		**0.174**	mg/L	1	06/03/2022 14:21	193267
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/03/2022 14:21	193267
Calcium	NELAP	0.100		**71.7**	mg/L	1	06/03/2022 14:21	193267
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2022 14:21	193267
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2022 14:21	193267
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	06/03/2022 14:21	193267
Lithium	NELAP	0.0050		**0.0064**	mg/L	1	06/03/2022 14:21	193267
Molybdenum	NELAP	0.0100		**0.0106**	mg/L	1	06/03/2022 14:21	193267
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2022 22:17	193267
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2022 22:17	193267
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/03/2022 22:17	193267
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/03/2022 10:29	193269
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	06/20/2022 0:00	R314337
Radium-228	*	0		**See attached**	pci/L	1	06/20/2022 0:00	R314337

Client: City Water, Light & Power
Work Order: 22051753
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jul-22
Lab ID: 22051753-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 05/31/2022 12:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	05/31/2022 12:12	R313064
Depth to water	*	-5.00		**5.46**	ft	1	05/31/2022 12:12	R313064
Depth to water from measuring point	*	0		**7.96**	ft	1	05/31/2022 12:12	R313064
Elevation of groundwater surface	*	0		**528.14**	ft	1	05/31/2022 12:12	R313064
Measuring Point Elevation	*	0		**536.10**	ft	1	05/31/2022 12:12	R313064
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	05/31/2022 12:12	R313064
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.9**	NTU	1	05/31/2022 12:12	R313064
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.9**	°F	1	05/31/2022 12:12	R313064
SW-846 9040B								
pH, Field	*	1.00		**6.43**		1	05/31/2022 12:12	R313064
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1430**	µmhos/cm @25C	1	05/31/2022 12:12	R313064
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1270**	mg/L	1	06/02/2022 12:02	R312777
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**532**	mg/L	20	06/07/2022 14:20	R312927
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.24**	mg/L	1	06/08/2022 9:31	R312973
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**35**	mg/L	1	06/07/2022 14:14	R312931
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	06/03/2022 14:24	193267
Barium	NELAP	0.0025		**0.0730**	mg/L	1	06/03/2022 14:24	193267
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/03/2022 14:24	193267
Boron	NELAP	0.0200		**4.25**	mg/L	1	06/03/2022 14:24	193267
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/03/2022 14:24	193267
Calcium	NELAP	0.100		**236**	mg/L	1	06/03/2022 14:24	193267
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2022 14:24	193267
Cobalt	NELAP	0.0050		**0.0089**	mg/L	1	06/03/2022 14:24	193267
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	06/03/2022 14:24	193267
Lithium	NELAP	0.0050		**0.0056**	mg/L	1	06/03/2022 14:24	193267
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/03/2022 14:24	193267
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2022 22:28	193267
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2022 22:28	193267
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/03/2022 22:28	193267
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/03/2022 10:34	193269
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	06/20/2022 0:00	R314337
Radium-228	*	0		**See attached**	pci/L	1	06/20/2022 0:00	R314337

Client: City Water, Light & Power
Work Order: 22051753
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jul-22
Lab ID: 22051753-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 05/31/2022 11:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	05/31/2022 11:47	R313064
Depth to water	*	-5.00		**7.94**	ft	1	05/31/2022 11:47	R313064
Depth to water from measuring point	*	0		**9.64**	ft	1	05/31/2022 11:47	R313064
Elevation of groundwater surface	*	0		**525.76**	ft	1	05/31/2022 11:47	R313064
Measuring Point Elevation	*	0		**535.40**	ft	1	05/31/2022 11:47	R313064
Measuring Point Height Above Land Surface	*	0		**1.70**	ft	1	05/31/2022 11:47	R313064
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.1**	NTU	1	05/31/2022 11:47	R313064
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.2**	°F	1	05/31/2022 11:47	R313064
SW-846 9040B								
pH, Field	*	1.00		**6.58**		1	05/31/2022 11:47	R313064
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1070**	µmhos/cm @25C	1	05/31/2022 11:47	R313064
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**942**	mg/L	1	06/02/2022 12:02	R312777
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**408**	mg/L	10	06/07/2022 14:27	R312927
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.24**	mg/L	1	06/08/2022 9:33	R312973
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**42**	mg/L	1	06/07/2022 14:22	R312931
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	06/03/2022 14:26	193267
Barium	NELAP	0.0025		**0.0849**	mg/L	1	06/03/2022 14:26	193267
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/03/2022 14:26	193267
Boron	NELAP	0.0200		**14.7**	mg/L	1	06/03/2022 14:26	193267
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/03/2022 14:26	193267
Calcium	NELAP	0.100		**152**	mg/L	1	06/03/2022 14:26	193267
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2022 14:26	193267
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2022 14:26	193267
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	06/03/2022 14:26	193267
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2022 14:26	193267
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/03/2022 14:26	193267
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2022 22:34	193267
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2022 22:34	193267
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/03/2022 22:34	193267
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/03/2022 10:36	193269
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	06/20/2022 0:00	R314337
Radium-228	*	0		**See attached**	pci/L	1	06/20/2022 0:00	R314337

Client: City Water, Light & Power
Work Order: 22051753
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jul-22
Lab ID: 22051753-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 06/01/2022 10:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	06/01/2022 10:19	R313064
Depth to water	*	-5.00		**7.24**	ft	1	06/01/2022 10:19	R313064
Depth to water from measuring point	*	0		**9.90**	ft	1	06/01/2022 10:19	R313064
Elevation of groundwater surface	*	0		**529.12**	ft	1	06/01/2022 10:19	R313064
Measuring Point Elevation	*	0		**539.02**	ft	1	06/01/2022 10:19	R313064
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	06/01/2022 10:19	R313064
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.8**	NTU	1	06/01/2022 10:19	R313064
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.9**	°F	1	06/01/2022 10:19	R313064
SW-846 9040B								
pH, Field	*	1.00		**6.92**		1	06/01/2022 10:19	R313064
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**923**	µmhos/cm @25C	1	06/01/2022 10:19	R313064
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**480**	mg/L	1	06/02/2022 12:04	R312777
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	06/09/2022 9:39	R313062
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.56**	mg/L	1	06/08/2022 9:41	R312973
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		**66**	mg/L	2	06/07/2022 15:10	R312931
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.0468**	mg/L	1	06/03/2022 14:33	193267
Barium	NELAP	0.0025		**0.130**	mg/L	1	06/03/2022 14:33	193267
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/03/2022 14:33	193267
Boron	NELAP	0.0200		**0.339**	mg/L	1	06/03/2022 14:33	193267
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/03/2022 14:33	193267
Calcium	NELAP	0.100		**64.9**	mg/L	1	06/03/2022 14:33	193267
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2022 14:33	193267
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2022 14:33	193267
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	06/03/2022 14:33	193267
Lithium	NELAP	0.0050		**0.0079**	mg/L	1	06/03/2022 14:33	193267
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/03/2022 14:33	193267
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2022 22:56	193267
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2022 22:56	193267
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/03/2022 22:56	193267
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/03/2022 10:54	193269
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	06/29/2022 0:00	R314337
Radium-228	*	0		**See attached**	pci/L	1	06/29/2022 0:00	R314337

Client: City Water, Light & Power
Work Order: 22051753
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jul-22
Lab ID: 22051753-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 05/31/2022 13:57

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	05/31/2022 13:57	R313064
Depth to water	*	-5.00		**2.13**	ft	1	05/31/2022 13:57	R313064
Depth to water from measuring point	*	0		**5.03**	ft	1	05/31/2022 13:57	R313064
Elevation of groundwater surface	*	0		**532.17**	ft	1	05/31/2022 13:57	R313064
Measuring Point Elevation	*	0		**537.20**	ft	1	05/31/2022 13:57	R313064
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	05/31/2022 13:57	R313064
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.0**	NTU	1	05/31/2022 13:57	R313064
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.7**	°F	1	05/31/2022 13:57	R313064
SW-846 9040B								
pH, Field	*	1.00		**6.90**		1	05/31/2022 13:57	R313064
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**864**	µmhos/cm @25C	1	05/31/2022 13:57	R313064
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**552**	mg/L	1	06/02/2022 12:04	R312777
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	06/07/2022 15:17	R312927
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.31**	mg/L	1	06/08/2022 9:51	R312973
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**28**	mg/L	1	06/07/2022 15:18	R312931
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.0352**	mg/L	1	06/03/2022 14:35	193267
Barium	NELAP	0.0025		**0.356**	mg/L	1	06/03/2022 14:35	193267
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/03/2022 14:35	193267
Boron	NELAP	0.0200		**0.0877**	mg/L	1	06/03/2022 14:35	193267
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/03/2022 14:35	193267
Calcium	NELAP	0.100		**96.5**	mg/L	1	06/03/2022 14:35	193267
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2022 14:35	193267
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2022 14:35	193267
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	06/03/2022 14:35	193267
Lithium	NELAP	0.0050		**0.0065**	mg/L	1	06/03/2022 14:35	193267
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/03/2022 14:35	193267
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2022 23:40	193267
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2022 23:40	193267
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/03/2022 23:40	193267
CCV recovered outside the upper control limits for Se and Tl. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/03/2022 10:56	193269
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	06/28/2022 0:00	R314337
Radium-228	*	0		**See attached**	pci/L	1	06/28/2022 0:00	R314337

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22051753
Report Date: 13-Jul-22

Carrier: Joe Riley

Received By: EAH

Completed by: Payton Yoch
On: 02-Jun-22

Reviewed by: Shelly A. Hennessy
On: 06-Jun-22

Pages to follow: Chain of custody 2 Extra pages included 43

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 2.0
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip 78198 - pyoch - 6/2/2022 8:57:41 AM

Additional Nitric Acid (82107) was needed for all 2L bottles (Radium 226-228) upon arrival at the laboratory. - pyoch - 6/2/2022 8:57:57 AM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 22051753

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☑ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 2.0 °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY LTGS
LAB NOTES: pH/2/198, Added HNO3 (82107) to all 2 liters, CET 6-6- 6-2-22

Client Comments: TE CET 6-6-22
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: J. RILEY

RESULTS REQUESTED: ☑ Standard ☐ 1-2 Day (100% Surcharge) ☐ Other ____ ☐ 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl/F/SO4/TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
22051753-001	RW-3	06/01/22 1345	Groundwater	1	3								✔	✔	✔	✔	✔	✔
002	AP-1	05/31/22 1330	Groundwater	1	3								✔	✔	✔	✔	✔	✔
003	AP-2	1212	Groundwater	1	3								✔	✔	✔	✔	✔	✔
004	AP-3	1147	Groundwater	1	3								✔	✔	✔	✔	✔	✔
005	AP-4	1628	Groundwater	1	3								✔	✔	✔	✔	✔	✔
006	AP-5	1655	Groundwater	1	3								✔	✔	✔	✔	✔	✔
007	AP-6	1422	Groundwater	1	3								✔	✔	✔	✔	✔	✔
008	AP-7	06/01/22 1019	Groundwater	1	3								✔	✔	✔	✔	✔	✔
009	AP-8	05/31/22 1357	Groundwater	1	3								✔	✔	✔	✔	✔	✔
010	AP-9	06/01/22 1047	Groundwater	1	3								✔	✔	✔	✔	✔	✔
011	AP-10	05/31/22 1301	Groundwater	1	3								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
[signature]	06/02/22 0733	[signature]	6/2/22 0733

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

[signature] 6/7/22

Print PDF

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 22051753

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
22051753-012	AP-11	06/01/22 1302	Groundwater	1	3								✔	✔	✔	✔	✔	✔
013	AP-12	06/01/22 1234	Groundwater	1	3								✔	✔	✔	✔	✔	✔
014	AP-13	06/01/22 1204	Groundwater	1	3								✔	✔	✔	✔	✔	✔
015	AP-14	05/31/22 1543	Groundwater	1	3								✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	06/02/22 0733		6/2/22 0733

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

July 12, 2022

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 22051753

Dear Shelly Hennessy:

Order No.: 22060560

Summit Environmental Technologies, Inc. received 15 sample(s) on 6/8/2022 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 011, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **22060560**
Date: **7/12/2022**

CLIENT: TEKLAB Inc,
Project: 22051753

WorkOrder Narrative:
22060560: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Run Comments:
145867: 22060887-001A is 22060877-001a in attached spreadsheet

Analytical Sequence Sample Notes:
22060560-013A Radium-228_NPW(904.0): Sample and Sample Duplicate exhibited high RPD for Radium-228 due to possible sample matrix interference.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **22060560**
Date: **7/12/2022**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **22060560**
12-Jul-22

CLIENT: TEKLAB Inc,
Project: 22051753

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
22060560-001	22051753-001		6/1/2022 1:45:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-002	22051753-002		5/31/2022 1:30:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-003	22051753-003		5/31/2022 12:12:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-004	22051753-004		5/31/2022 11:47:00 AM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-005	22051753-005		5/31/2022 4:28:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-006	22051753-006		5/31/2022 4:55:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-007	22051753-007		5/31/2022 2:22:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-008	22051753-008		6/1/2022 10:19:00 AM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-009	22051753-009		5/31/2022 1:57:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-010	22051753-010		6/1/2022 10:47:00 AM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-011	22051753-011		5/31/2022 1:01:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-012	22051753-012		6/1/2022 1:02:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-013	22051753-013		6/1/2022 12:34:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-014	22051753-014		6/1/2022 12:04:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water
22060560-015	22051753-015		5/31/2022 3:43:00 PM	6/8/2022 4:00:00 PM	Non-Potable Water

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,

Project: 22051753

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
22060560-001A	22051753-001	6/1/2022 1:45:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		6/15/2022 2:39:00 PM	6/21/2022 9:38:00 AM
				Radium-228 (EPA 904.0)		6/15/2022 2:39:00 PM	6/20/2022 2:31:00 PM
22060560-002A	22051753-002	5/31/2022 1:30:00 PM		Radium-226 (EPA 903.0)		6/15/2022 2:39:00 PM	6/21/2022 9:38:00 AM
				Radium-228 (EPA 904.0)		6/15/2022 2:39:00 PM	6/20/2022 2:31:00 PM
22060560-003A	22051753-003	5/31/2022 12:12:00 PM		Radium-226 (EPA 903.0)		6/15/2022 2:39:00 PM	6/21/2022 9:38:00 AM
				Radium-228 (EPA 904.0)		6/15/2022 2:39:00 PM	6/20/2022 2:31:00 PM
22060560-004A	22051753-004	5/31/2022 11:47:00 AM		Radium-226 (EPA 903.0)		6/15/2022 2:39:00 PM	6/21/2022 9:38:00 AM
				Radium-228 (EPA 904.0)		6/15/2022 2:39:00 PM	6/20/2022 2:31:00 PM
22060560-005A	22051753-005	5/31/2022 4:28:00 PM		Radium-226 (EPA 903.0)		6/20/2022 9:25:00 AM	6/29/2022 9:21:00 AM
				Radium-228 (EPA 904.0)		6/20/2022 9:25:00 AM	6/28/2022 2:04:00 PM
22060560-006A	22051753-006	5/31/2022 4:55:00 PM		Radium-226 (EPA 903.0)		6/20/2022 9:25:00 AM	6/29/2022 9:21:00 AM
				Radium-228 (EPA 904.0)		6/20/2022 9:25:00 AM	6/28/2022 2:04:00 PM
22060560-007A	22051753-007	5/31/2022 2:22:00 PM		Radium-226 (EPA 903.0)		6/20/2022 9:25:00 AM	6/29/2022 9:21:00 AM
				Radium-228 (EPA 904.0)		6/20/2022 9:25:00 AM	6/28/2022 2:04:00 PM
22060560-008A	22051753-008	6/1/2022 10:19:00 AM		Radium-226 (EPA 903.0)		6/20/2022 9:25:00 AM	6/29/2022 9:21:00 AM
				Radium-228 (EPA 904.0)		7/5/2022 2:13:00 PM	7/8/2022 3:48:00 PM
				Radium-228 (EPA 904.0)		6/20/2022 9:25:00 AM	6/28/2022 2:04:00 PM
22060560-009A	22051753-009	5/31/2022 1:57:00 PM		Radium-226 (EPA 903.0)		6/20/2022 9:25:00 AM	6/29/2022 9:21:00 AM
				Radium-228 (EPA 904.0)		6/20/2022 9:25:00 AM	6/28/2022 2:04:00 PM
22060560-010A	22051753-010	6/1/2022 10:47:00 AM		Radium-226 (EPA 903.0)		6/20/2022 9:25:00 AM	6/29/2022 9:21:00 AM
				Radium-228 (EPA 904.0)		6/20/2022 9:25:00 AM	6/28/2022 2:04:00 PM
22060560-011A	22051753-011	5/31/2022 1:01:00 PM		Radium-226 (EPA 903.0)		6/20/2022 9:25:00 AM	6/29/2022 9:21:00 AM
				Radium-228 (EPA 904.0)		6/20/2022 9:25:00 AM	6/28/2022 2:04:00 PM

Original

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DATES REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,

Project: 22051753

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
22060560-012A	22051753-012	6/1/2022 1:02:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		6/20/2022 9:25:00 AM	6/29/2022 9:21:00 AM
				Radium-228 (EPA 904.0)		6/20/2022 9:25:00 AM	6/28/2022 2:04:00 PM
				Radium-228 (EPA 904.0)		7/5/2022 2:13:00 PM	7/8/2022 3:48:00 PM
22060560-013A	22051753-013	6/1/2022 12:34:00 PM		Radium-226 (EPA 903.0)		7/5/2022 11:10:00 AM	7/12/2022 10:23:00 AM
				Radium-228 (EPA 904.0)		7/5/2022 11:10:00 AM	7/11/2022 3:26:00 PM
22060560-014A	22051753-014	6/1/2022 12:04:00 PM		Radium-226 (EPA 903.0)		7/5/2022 11:10:00 AM	7/12/2022 10:23:00 AM
				Radium-228 (EPA 904.0)		7/5/2022 11:10:00 AM	7/11/2022 3:26:00 PM
22060560-015A	22051753-015	5/31/2022 3:43:00 PM		Radium-226 (EPA 903.0)		7/5/2022 11:10:00 AM	7/12/2022 10:23:00 AM
				Radium-228 (EPA 904.0)		7/5/2022 11:10:00 AM	7/11/2022 3:26:00 PM

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Analytical Report

(consolidated)

WO#: **22060560**

Date Reported: **7/12/2022**

CLIENT: TEKLAB Inc,
Project: 22051753
Lab ID: 22060560-001
Client Sample ID: 22051753-001

Collection Date: 6/1/2022 1:45:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.08	1	6/21/2022 9:38:00 AM
Yield	1.00					1	6/21/2022 9:38:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.47	1	6/20/2022 2:31:00 PM
Yield	1.00					1	6/20/2022 2:31:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

Summit Environmental Technologies, Inc.
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Analytical Report

(consolidated)

WO#: **22060560**

Date Reported: **7/12/2022**

CLIENT: TEKLAB Inc,
Project: 22051753
Lab ID: 22060560-003
Client Sample ID: 22051753-003

Collection Date: 5/31/2022 12:12:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.12	1	6/21/2022 9:38:00 AM
Yield	0.970					1	6/21/2022 9:38:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.43	1	6/20/2022 2:31:00 PM
Yield	0.940					1	6/20/2022 2:31:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22060560**

Date Reported: **7/12/2022**

CLIENT: TEKLAB Inc,
Project: 22051753
Lab ID: 22060560-004
Client Sample ID: 22051753-004

Collection Date: 5/31/2022 11:47:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.1	1	6/21/2022 9:38:00 AM
Yield	1.00					1	6/21/2022 9:38:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.56	1	6/20/2022 2:31:00 PM
Yield	1.00					1	6/20/2022 2:31:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22060560**

Date Reported: **7/12/2022**

CLIENT: TEKLAB Inc,
Project: 22051753
Lab ID: 22060560-008
Client Sample ID: 22051753-008

Collection Date: 6/1/2022 10:19:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.14	1	6/29/2022 9:21:00 AM
Yield	1.00					1	6/29/2022 9:21:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.68	1	7/8/2022 3:48:00 PM
Yield	1.00					1	7/8/2022 3:48:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22060560**

Date Reported: **7/12/2022**

CLIENT: TEKLAB Inc,
Project: 22051753
Lab ID: 22060560-009
Client Sample ID: 22051753-009

Collection Date: 5/31/2022 1:57:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.2	1	6/29/2022 9:21:00 AM
Yield	1.00					1	6/29/2022 9:21:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	1.16	1.00		pCi/L	± 0.61	1	6/28/2022 2:04:00 PM
Yield	0.980					1	6/28/2022 2:04:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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QC SUMMARY REPORT

WO#: **22060560**
12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57497**

Sample ID: **MB-57497**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145859**
Client ID: **PBW**	Batch ID: **57497**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/20/2022**	SeqNo: **3856765**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-57497**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145859**
Client ID: **LCSW**	Batch ID: **57497**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/20/2022**	SeqNo: **3856766**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.01	1.00	5.000	0	80.2	70	130				
Yield	1.00			0	0						

Sample ID: **LCSD-57497**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145859**
Client ID: **LCSS02**	Batch ID: **57497**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/20/2022**	SeqNo: **3856767**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.82	1.00	5.000	0	76.4	70	130	4.010	4.85	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57497**

Sample ID: **RLC-57497** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/15/2022** RunNo: **145859**
Client ID: **BatchQC** Batch ID: **57497** TestNo: **E904.0** **E903-904** Analysis Date: **6/20/2022** SeqNo: **3856769**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.41	1.00	1.000	0	141	50	150				
Yield	1.00			0	0						

Sample ID: **RLCD-57497** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/15/2022** RunNo: **145859**
Client ID: **BatchQC** Batch ID: **57497** TestNo: **E904.0** **E903-904** Analysis Date: **6/20/2022** SeqNo: **3856770**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	90.0	50	150				
Yield	1.00			0	0						

Sample ID: **22060815-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/15/2022** RunNo: **145859**
Client ID: **BatchQC** Batch ID: **57497** TestNo: **E904.0** **E903-904** Analysis Date: **6/20/2022** SeqNo: **3856777**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22060560**
12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57497**

Sample ID: **22060655-001AMS**	SampType: **MS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145859**
Client ID: **BatchQC**	Batch ID: **57497**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/20/2022**	SeqNo: **3856778**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	6.31	1.00	5.000	1.750	91.2	70	130				
Yield	1.00			1.000	0						

Sample ID: **22060818-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145859**
Client ID: **BatchQC**	Batch ID: **57497**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/20/2022**	SeqNo: **3856781**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57497**

Sample ID: **MB-57497**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145867**
Client ID: **PBW**	Batch ID: **57497**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/21/2022**	SeqNo: **3856875**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-57497**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145867**
Client ID: **LCSW**	Batch ID: **57497**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/21/2022**	SeqNo: **3856876**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.93	1.00	5.000	0	119	70	130				

Sample ID: **LCSD-57497**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145867**
Client ID: **LCSS02**	Batch ID: **57497**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/21/2022**	SeqNo: **3856877**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.99	1.00	5.000	0	99.8	70	130	5.930	17.2	20	

Sample ID: **RLC-57497**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145867**
Client ID: **BatchQC**	Batch ID: **57497**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/21/2022**	SeqNo: **3856879**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57497**

Sample ID: **RLC-57497** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/15/2022** RunNo: **145867**
Client ID: **BatchQC** Batch ID: **57497** TestNo: **E903.0** **E903-904** Analysis Date: **6/21/2022** SeqNo: **3856879**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	91.0	50	150				

Sample ID: **RLCD-57497** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/15/2022** RunNo: **145867**
Client ID: **BatchQC** Batch ID: **57497** TestNo: **E903.0** **E903-904** Analysis Date: **6/21/2022** SeqNo: **3856880**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	64.0	50	150				

Sample ID: **22060655-001AMS** SampType: **MS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/15/2022** RunNo: **145867**
Client ID: **BatchQC** Batch ID: **57497** TestNo: **E903.0** **E903-904** Analysis Date: **6/21/2022** SeqNo: **3856881**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.99	1.00	5.000	0	99.8	70	130				

Sample ID: **22060815-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/15/2022** RunNo: **145867**
Client ID: **BatchQC** Batch ID: **57497** TestNo: **E903.0** **E903-904** Analysis Date: **6/21/2022** SeqNo: **3856886**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	R

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57497**

Sample ID: **22060815-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145867**
Client ID: **BatchQC**	Batch ID: **57497**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/21/2022**	SeqNo: **3856886**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Yield	1.00							1.000	0	0	

Sample ID: **22060818-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/15/2022**	RunNo: **145867**
Client ID: **BatchQC**	Batch ID: **57497**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/21/2022**	SeqNo: **3856890**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57568**

Sample ID: **MB-57568** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/20/2022** RunNo: **146400**
Client ID: **PBW** Batch ID: **57568** TestNo: **E904.0** **E903-904** Analysis Date: **6/28/2022** SeqNo: **3872590**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-57568** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/20/2022** RunNo: **146400**
Client ID: **LCSW** Batch ID: **57568** TestNo: **E904.0** **E903-904** Analysis Date: **6/28/2022** SeqNo: **3872591**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.51	1.00	5.000	0	110	70	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-57568** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/20/2022** RunNo: **146400**
Client ID: **LCSS02** Batch ID: **57568** TestNo: **E904.0** **E903-904** Analysis Date: **6/28/2022** SeqNo: **3872592**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.83	1.00	5.000	0	76.6	70	130	5.510	36.0	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57568**

Sample ID: **RLC-57568**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/20/2022**	RunNo: **146400**
Client ID: **BatchQC**	Batch ID: **57568**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/28/2022**	SeqNo: **3872594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	68.0	50	150				
Yield	1.00			0	0						

Sample ID: **22060953-001AMS**	SampType: **MS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/20/2022**	RunNo: **146400**
Client ID: **BatchQC**	Batch ID: **57568**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/28/2022**	SeqNo: **3872596**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.81	1.00	5.000	0	76.2	70	130				
Yield	1.00			1.000	0						

Sample ID: **22061131-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/20/2022**	RunNo: **146400**
Client ID: **BatchQC**	Batch ID: **57568**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/28/2022**	SeqNo: **3872599**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57568**

Sample ID: **22061131-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/20/2022** RunNo: **146400**
Client ID: **BatchQC** Batch ID: **57568** TestNo: **E904.0** **E903-904** Analysis Date: **6/28/2022** SeqNo: **3872602**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.56	1.00		0	0			1.510	3.26	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57568**

Sample ID: **MB-57568** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/20/2022** RunNo: **146405**
Client ID: **PBW** Batch ID: **57568** TestNo: **E903.0** **E903-904** Analysis Date: **6/29/2022** SeqNo: **3872696**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-57568** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/20/2022** RunNo: **146405**
Client ID: **LCSW** Batch ID: **57568** TestNo: **E903.0** **E903-904** Analysis Date: **6/29/2022** SeqNo: **3872697**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.31	1.00	5.000	0	106	70	130				

Sample ID: **LCSD-57568** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/20/2022** RunNo: **146405**
Client ID: **LCSS02** Batch ID: **57568** TestNo: **E903.0** **E903-904** Analysis Date: **6/29/2022** SeqNo: **3872698**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.39	1.00	5.000	0	128	70	130	5.310	18.5	20	

Sample ID: **RLC-57568** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/20/2022** RunNo: **146405**
Client ID: **BatchQC** Batch ID: **57568** TestNo: **E903.0** **E903-904** Analysis Date: **6/29/2022** SeqNo: **3872700**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57568**

Sample ID: **RLC-57568**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/20/2022**	RunNo: **146405**
Client ID: **BatchQC**	Batch ID: **57568**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/29/2022**	SeqNo: **3872700**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	93.0	50	150				

Sample ID: **RLCD-57568**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/20/2022**	RunNo: **146405**
Client ID: **BatchQC**	Batch ID: **57568**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/29/2022**	SeqNo: **3872701**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.07	1.00	1.000	0	107	50	150				

Sample ID: **22060953-001AMS**	SampType: **MS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/20/2022**	RunNo: **146405**
Client ID: **BatchQC**	Batch ID: **57568**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/29/2022**	SeqNo: **3875994**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.07	1.00	5.000	0	101	70	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57915**

Sample ID: **22060560-015AMS** SampType: **MS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146893**
Client ID: **22051753-015** Batch ID: **57915** TestNo: **E904.0** **E903-904** Analysis Date: **7/11/2022** SeqNo: **3890091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	6.34	1.00	5.000	1.350	99.8	70	130				
Yield	1.00			1.000	0						

Sample ID: **22060560-013ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146893**
Client ID: **22051753-013** Batch ID: **57915** TestNo: **E904.0** **E903-904** Analysis Date: **7/11/2022** SeqNo: **3890098**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			1.460	200	30	R
Yield	1.00			0	0			1.000	0		

Sample ID: **22060560-014ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146893**
Client ID: **22051753-014** Batch ID: **57915** TestNo: **E904.0** **E903-904** Analysis Date: **7/11/2022** SeqNo: **3890100**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57915**

Sample ID: **MB-57915** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146893**
Client ID: **PBW** Batch ID: **57915** TestNo: **E904.0** **E903-904** Analysis Date: **7/11/2022** SeqNo: **3890085**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-57915** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146893**
Client ID: **LCSW** Batch ID: **57915** TestNo: **E904.0** **E903-904** Analysis Date: **7/11/2022** SeqNo: **3890086**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.90	1.00	5.000	0	98.0	70	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-57915** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146893**
Client ID: **LCSS02** Batch ID: **57915** TestNo: **E904.0** **E903-904** Analysis Date: **7/11/2022** SeqNo: **3890087**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	6.04	1.00	5.000	0	121	70	130	4.900	20.8	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,

Project: 22051753 **BatchID:** **57915**

Sample ID: **RLC-57915**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/5/2022**	RunNo: **146893**
Client ID: **BatchQC**	Batch ID: **57915**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/11/2022**	SeqNo: **3890089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	86.0	50	150				
Yield	1.00			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57915**

Sample ID: **22060560-015AMS** SampType: **MS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146899**
Client ID: **22051753-015** Batch ID: **57915** TestNo: **E903.0** **E903-904** Analysis Date: **7/12/2022** SeqNo: **3890536**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.33	1.00	5.000	0	86.6	70	130				

Sample ID: **22060560-013ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146899**
Client ID: **22051753-013** Batch ID: **57915** TestNo: **E903.0** **E903-904** Analysis Date: **7/12/2022** SeqNo: **3890543**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Sample ID: **22060560-014ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146899**
Client ID: **22051753-014** Batch ID: **57915** TestNo: **E903.0** **E903-904** Analysis Date: **7/12/2022** SeqNo: **3890545**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57915**

Sample ID: **MB-57915** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146899**
Client ID: **PBW** Batch ID: **57915** TestNo: **E903.0** **E903-904** Analysis Date: **7/12/2022** SeqNo: **3890530**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-57915** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146899**
Client ID: **LCSW** Batch ID: **57915** TestNo: **E903.0** **E903-904** Analysis Date: **7/12/2022** SeqNo: **3890531**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.04	1.00	5.000	0	101	70	130				

Sample ID: **LCSD-57915** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146899**
Client ID: **LCSS02** Batch ID: **57915** TestNo: **E903.0** **E903-904** Analysis Date: **7/12/2022** SeqNo: **3890532**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.44	1.00	5.000	0	109	70	130	5.040	7.63	20	

Sample ID: **RLC-57915** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **7/5/2022** RunNo: **146899**
Client ID: **BatchQC** Batch ID: **57915** TestNo: **E903.0** **E903-904** Analysis Date: **7/12/2022** SeqNo: **3890534**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57915**

Sample ID: **RLC-57915**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/5/2022**	RunNo: **146899**
Client ID: **BatchQC**	Batch ID: **57915**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/12/2022**	SeqNo: **3890534**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.20	1.00	1.000	0	120	50	150				

Sample ID: **RLCD-57915**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/5/2022**	RunNo: **146899**
Client ID: **BatchQC**	Batch ID: **57915**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/12/2022**	SeqNo: **3890535**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.14	1.00	1.000	0	114	50	150				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57916**

Sample ID: **MB-57916**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/5/2022**	RunNo: **146844**
Client ID: **PBW**	Batch ID: **57916**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/8/2022**	SeqNo: **3888527**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-57916**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/5/2022**	RunNo: **146844**
Client ID: **LCSW**	Batch ID: **57916**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/8/2022**	SeqNo: **3888528**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.67	1.00	5.000	0	73.4	70	130				
Yield	1.00			0	0						

Sample ID: **LCSD-57916**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/5/2022**	RunNo: **146844**
Client ID: **LCSS02**	Batch ID: **57916**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/8/2022**	SeqNo: **3888529**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.81	1.00	5.000	0	76.2	70	130	3.670	3.74	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22060560**

12-Jul-22

Client: TEKLAB Inc,
Project: 22051753 **BatchID:** **57916**

Sample ID: **RLC-57916**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/5/2022**	RunNo: **146844**
Client ID: **BatchQC**	Batch ID: **57916**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/8/2022**	SeqNo: **3888531**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	50.0	50	150				
Yield	1.00			0	0						

Sample ID: **22060954-001AMS**	SampType: **MS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/5/2022**	RunNo: **146844**
Client ID: **BatchQC**	Batch ID: **57916**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/8/2022**	SeqNo: **3888533**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.00	1.00	5.000	1.000	80.0	70	130				
Yield	1.00			1.000	0						

Sample ID: **22060957-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/5/2022**	RunNo: **146844**
Client ID: **BatchQC**	Batch ID: **57916**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/8/2022**	SeqNo: **3888538**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

22060560

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Cooler Temp: Sampler: Joseph Riley QC Level: 2

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Comments: **Please issue reports and invoices via email only**
Please analyze for Radium 226/228 on your standard turn around time.
Samples collected from an IL site.
Batch QC is required for all analyses requested. EDD requested..

Project# 22051753

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 32888 Phone: (618) 344-1004

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228	PH
CPM 13, 17	22051753-001	6/1/22 1345	HNO3	Groundwater	☑	1, 1
20, 23	22051753-002	5/31/22 1330	HNO3	Groundwater	☑	1, 1
27, 25	22051753-003	5/31/22 1212	HNO3	Groundwater	☑	1, 1
23, 28	22051753-004	5/31/22 1147	HNO3	Groundwater	☑	1, 1
20, 26	22051753-005	5/31/22 1628	HNO3	Groundwater	☑	1, 1
16, 21	22051753-006	5/31/22 1655	HNO3	Groundwater	☑	1, 1
16, 18	22051753-007	5/31/22 1422	HNO3	Groundwater	☑	1, 1
33, 39	22051753-008	6/1/22 1019	HNO3	Groundwater	☑	1, 1
23, 28	22051753-009	5/31/22 1357	HNO3	Groundwater	☑	1, 1
20, 21	22051753-010	6/1/22 1047	HNO3	Groundwater	☑	1, 1
37, 41	22051753-011	5/31/22 1301	HNO3	Groundwater	☑	1, 1

*Relinquished By	Date/Time	Received By	Date/Time
[signature]	(FedEx) 6/3/22 1600	[signature]	06/08/22 1600

19.7-0.1=19.6 Fedex Cooler 1600 2 cont pc Sample

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA
3/2/2016

22060560

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Joseph Riley | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 on your standard turn around time.
Samples collected from an IL site.
Batch QC is required for all analyses requested. EDD requested..

Project# 22051753

Contact: Shelly Hennessy | Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT | Billing/PO: 32888 | Phone: (618) 344-1004

PLEASE NOTE:
NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.
Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228	
CPM 37,40	22051753-012	6/1/22 1302	HNO3	Groundwater	✓	PH 1,1
16,20	22051753-013	6/1/22 1234	HNO3	Groundwater	✓	1,1
23,29	22051753-014	6/1/22 1204	HNO3	Groundwater	✓	1,1
16,19	22051753-015	5/31/22 1543	HNO3	Groundwater	✓	✓ 1,1
			HNO3	Groundwater	✓	
			HNO3	Groundwater	✓	
			HNO3	Groundwater	✓	
			HNO3	Groundwater	✓	
			HNO3	Groundwater	✓	
			HNO3	Groundwater	✓	
			HNO3	Groundwater	✓	

*Relinquished By	Date/Time	Received By	Date/Time
Elizabeth Rothwell (Teklab)	6/3/22 1600	[signature]	06/08/22 1600

19.7-0.1 = 19.6 Fedex cooler 1600 2 cont per sample

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights.
Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA
3/2/2016

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **22060560** RcptNo: **1**

Logged by:	**Anthony W. Britton**	**6/8/2022 4:00:00 PM**	Anthony Britton
Completed By:	**Anthony W. Britton**	**6/9/2022 9:11:31 AM**	Anthony Britton
Reviewed By:	**Jennifer Woolf**	**6/10/2022 6:39:39 PM**	Jennifer Woolf

Chain of Custody

1.	Were seals intact?	Yes ☑	No ☐	Not Present ☐
2.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3.	How was the sample delivered?	FedEx		

Log In

4.	Coolers are present?	Yes ☐	No ☑	NA ☐
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
box	19.6	Good	Not Present			

June 17, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Landfill Monitoring Wells G1-G2-G3 **WorkOrder:** 22051752

Dear Eric Staley:

TEKLAB, INC received 12 samples on 6/3/2022 7:42:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 22051752
Client Project: Landfill Monitoring Wells G1-G2-G3
Report Date: 17-Jun-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
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Accreditations	6
Laboratory Results	7
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Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 22051752

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 17-Jun-22

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power

Work Order: 22051752

Client Project: Landfill Monitoring Wells G1-G2-G3

Report Date: 17-Jun-22

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 22051752
Client Project: Landfill Monitoring Wells G1-G2-G3
Report Date: 17-Jun-22

Cooler Receipt Temp: 0.4 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 22051752

Client Project: Landfill Monitoring Wells G1-G2-G3

Report Date: 17-Jun-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 22051752

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 17-Jun-22

Lab ID: 22051752-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 06/02/2022 12:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	06/02/2022 12:32	R313095
Depth to water	*	-5.00		**11.30**	ft	1	06/02/2022 12:32	R313095
Depth to water from measuring point	*	0		**14.05**	ft	1	06/02/2022 12:32	R313095
Elevation of groundwater surface	*	0		**541.55**	ft	1	06/02/2022 12:32	R313095
Measuring Point Elevation	*	0		**555.60**	ft	1	06/02/2022 12:32	R313095
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.0**	°F	1	06/02/2022 12:32	R313095
SW-846 9040B								
pH, Field	*	1.00		**6.66**		1	06/02/2022 12:32	R313095
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1490**	µmhos/cm @25C	1	06/02/2022 12:32	R313095
EPA 1664A								
Hexane Extractable Material	NELAP	6		**23**	mg/L	1	06/07/2022 13:07	R312918
EPA 600 350.1 (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.89**	mg/L	1	06/08/2022 23:38	R312968
EPA 600 350.1 (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10	S	**1.87**	mg/L	1	06/08/2022 22:24	R312968
Matrix spike did not recover within control limits due to matrix interference.								
EPA 600 353.2 R2.0 (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	06/03/2022 18:49	R312831
EPA 600 353.2 R2.0 (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	06/03/2022 18:01	R312831
STANDARD METHODS 2540 C (DISSOLVED) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1060**	mg/L	2.5	06/06/2022 9:03	R312900
STANDARD METHODS 5210 B 2001, 2011								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	06/03/2022 13:59	193313
STANDARD METHODS 5220 D (TOTAL) 1997								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	06/10/2022 15:18	R313098
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	06/06/2022 14:14	193326
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	100		**343**	mg/L	10	06/08/2022 15:54	R312990
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**344**	mg/L	10	06/08/2022 16:56	R312990
SW-846 9060								
Total Organic Carbon (TOC)	NELAP	1.0		**2.9**	mg/L	1	06/06/2022 20:01	R312819
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**7**	µg/L	1	06/07/2022 9:53	R312896
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**< 0.10**	mg/L	1	06/08/2022 10:51	R312973
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	1		**39**	mg/L	1	06/07/2022 18:46	R312931
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**40**	mg/L	1	06/07/2022 21:26	R312931

Client: City Water, Light & Power **Work Order:** 22051752

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 17-Jun-22

Lab ID: 22051752-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 06/02/2022 12:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	100		**7720**	µg/L	5	06/09/2022 18:01	193316
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	06/08/2022 16:54	193316
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	06/08/2022 16:54	193316
Magnesium	NELAP	0.050		**77.4**	mg/L	1	06/08/2022 16:54	193316
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	06/08/2022 16:54	193316
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**1690**	µg/L	1	06/07/2022 15:18	193395
Barium	NELAP	2.5		**640**	µg/L	1	06/07/2022 15:18	193395
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	06/07/2022 15:18	193395
Boron	NELAP	20.0		**8240**	µg/L	1	06/07/2022 15:18	193395
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	06/07/2022 15:18	193395
Calcium	NELAP	0.100		**195**	mg/L	1	06/07/2022 15:18	193395
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	06/07/2022 15:18	193395
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	06/07/2022 15:18	193395
Copper	NELAP	5.0		**< 5.0**	µg/L	1	06/07/2022 15:18	193395
Iron	NELAP	40.0		**41900**	µg/L	1	06/07/2022 15:18	193395
Magnesium	NELAP	0.050		**84.6**	mg/L	1	06/07/2022 15:18	193395
Manganese	NELAP	7.0		**204**	µg/L	1	06/07/2022 15:18	193395
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	06/07/2022 15:18	193395
Potassium	NELAP	0.100		**2.29**	mg/L	1	06/07/2022 15:18	193395
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	06/07/2022 15:18	193395
Silver	NELAP	7.0		**< 7.0**	µg/L	1	06/07/2022 15:18	193395
Sodium	NELAP	0.050		**32.3**	mg/L	1	06/07/2022 15:18	193395
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	06/07/2022 15:18	193395
Zinc	NELAP	10.0		**11.2**	µg/L	1	06/07/2022 15:18	193395
Sample result(s) for B exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**143**	µg/L	5	06/09/2022 23:39	193316
Lead	NELAP	1.0		**< 1.0**	µg/L	5	06/09/2022 23:39	193316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	06/09/2022 22:42	193395
Arsenic	NELAP	1.0		**148**	µg/L	5	06/08/2022 0:42	193395
Lead	NELAP	1.0		**1.8**	µg/L	5	06/08/2022 0:42	193395
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	06/09/2022 22:42	193395
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	06/09/2022 9:44	193455
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	06/08/2022 11:59	193411
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	06/08/2022 20:54	193425
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	06/09/2022 17:47	193477
Alachlor	NELAP	0.05		**ND**	µg/L	1	06/09/2022 17:47	193477
Aldrin	NELAP	0.05		**ND**	µg/L	1	06/09/2022 17:47	193477
Dieldrin	NELAP	0.05		**ND**	µg/L	1	06/09/2022 17:47	193477
Endrin	NELAP	0.05		**ND**	µg/L	1	06/09/2022 17:47	193477

Client: City Water, Light & Power **Work Order:** 22051752

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 17-Jun-22

Lab ID: 22051752-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 06/02/2022 12:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
gamma-BHC	NELAP	0.05		**ND**	µg/L	1	06/09/2022 17:47	193477
Heptachlor	NELAP	0.05		**ND**	µg/L	1	06/09/2022 17:47	193477
Heptachlor epoxide	NELAP	0.05		**ND**	µg/L	1	06/09/2022 17:47	193477
Methoxychlor	NELAP	0.05		**ND**	µg/L	1	06/09/2022 17:47	193477
Toxaphene	NELAP	1.00		**ND**	µg/L	1	06/09/2022 17:47	193477
Chlordane	NELAP	0.10		**ND**	µg/L	1	06/09/2022 17:47	193477
Surr: Decachlorobiphenyl	*	5-135		**63.3**	%REC	1	06/09/2022 17:47	193477
Surr: Tetrachloro-m-xylene	*	12-145		**118.1**	%REC	1	06/09/2022 17:47	193477
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	06/09/2022 18:09	193477
Surr: Decachlorobiphenyl	*	5-174		**62.2**	%REC	1	06/09/2022 18:09	193477
Surr: Tetrachloro-meta-xylene	*	22.2-139		**115.6**	%REC	1	06/09/2022 18:09	193477
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.20		**ND**	µg/L	1	06/10/2022 19:06	193385
2,4-D	NELAP	0.20		**ND**	µg/L	1	06/10/2022 19:06	193385
Dalapon	NELAP	1.30		**ND**	µg/L	1	06/10/2022 19:06	193385
Dinoseb	NELAP	0.20		**ND**	µg/L	1	06/10/2022 19:06	193385
Pentachlorophenol	NELAP	0.10		**ND**	µg/L	1	06/10/2022 19:06	193385
Picloram	NELAP	0.20		**ND**	µg/L	1	06/10/2022 19:06	193385
Surr: 2,4-Dichlorophenylacetic acid	*	18.4-136		**80.1**	%REC	1	06/10/2022 19:06	193385
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	06/09/2022 16:22	193448
Atrazine	NELAP	0.08		**ND**	µg/L	1	06/09/2022 16:22	193448
Benzo(a)pyrene	NELAP	0.20		**ND**	µg/L	1	06/09/2022 16:22	193448
Carbofuran	NELAP	0.60		**ND**	µg/L	1	06/09/2022 16:22	193448
Simazine	NELAP	0.55		**ND**	µg/L	1	06/09/2022 16:22	193448
Surr: 2-Fluorobiphenyl	*	20.6-86.8		**66.8**	%REC	1	06/09/2022 16:22	193448
Surr: 2-Fluorophenol	*	13.8-63		**51.8**	%REC	1	06/09/2022 16:22	193448
Surr: Nitrobenzene-d5	*	22.7-90.9		**74.4**	%REC	1	06/09/2022 16:22	193448
Surr: Phenol-d5	*	7.73-44.6		**35.4**	%REC	1	06/09/2022 16:22	193448
Surr: p-Terphenyl-d14	*	38-99.7		**75.0**	%REC	1	06/09/2022 16:22	193448
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	06/09/2022 14:55	193430
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	06/09/2022 14:55	193430
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	06/09/2022 14:55	193430
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	06/09/2022 14:55	193430
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	06/09/2022 14:55	193430
Di-n-butyl phthalate	NELAP	10.0		**ND**	µg/L	1	06/09/2022 14:55	193430
Isophorone	NELAP	10.0		**ND**	µg/L	1	06/09/2022 14:55	193430
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	06/09/2022 14:55	193430
Parathion	NELAP	5.0		**ND**	µg/L	1	06/09/2022 14:55	193430
Surr: 2,4,6-Tribromophenol	*	28.4-122		**72.5**	%REC	1	06/09/2022 14:55	193430
Surr: 2-Fluorobiphenyl	*	36.3-102		**63.4**	%REC	1	06/09/2022 14:55	193430
Surr: 2-Fluorophenol	*	12.3-72.5		**40.8**	%REC	1	06/09/2022 14:55	193430
Surr: Nitrobenzene-d5	*	32.3-100		**57.3**	%REC	1	06/09/2022 14:55	193430
Surr: Phenol-d5	*	10-62.5		**35.3**	%REC	1	06/09/2022 14:55	193430
Surr: p-Terphenyl-d14	*	10-112		**31.7**	%REC	1	06/09/2022 14:55	193430

Client: City Water, Light & Power **Work Order:** 22051752

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 17-Jun-22

Lab ID: 22051752-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 06/02/2022 12:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		ND	µg/L	1	06/07/2022 19:25	193386
1,2-Dibromoethane	*	0.05		ND	µg/L	1	06/07/2022 19:25	193386
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,1,1-Trichloroethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,1,2,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,1,2-Trichloroethane	NELAP	0.50		ND	µg/L	1	06/04/2022 0:04	193354
1,1-Dichloroethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,1-Dichloroethene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,2,3-Trichlorobenzene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,2,3-Trichloropropane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,2,4-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,2-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,2-Dichloroethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,3,5-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,3-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,3-Dichloropropane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
1,4-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
2,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
2-Butanone	NELAP	5.00		ND	µg/L	1	06/04/2022 0:04	193354
2-Chlorotoluene	NELAP	1.00		ND	µg/L	1	06/04/2022 0:04	193354
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/04/2022 0:04	193354
4-Chlorotoluene	NELAP	1.00		ND	µg/L	1	06/04/2022 0:04	193354
4-Methyl-2-pentanone	NELAP	5.00		ND	µg/L	1	06/04/2022 0:04	193354
Acetone	NELAP	5.00		ND	µg/L	1	06/04/2022 0:04	193354
Acrolein	NELAP	5.00		ND	µg/L	1	06/04/2022 0:04	193354
Acrylonitrile	NELAP	5.00		ND	µg/L	1	06/04/2022 0:04	193354
Benzene	NELAP	0.50		ND	µg/L	1	06/04/2022 0:04	193354
Bromobenzene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Bromochloromethane	NELAP	1.00		ND	µg/L	1	06/04/2022 0:04	193354
Bromodichloromethane	NELAP	1.00		ND	µg/L	1	06/04/2022 0:04	193354
Bromoform	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Bromomethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Carbon disulfide	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Carbon tetrachloride	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Chlorobenzene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Chloroethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Chloroform	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Chloromethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
cis-1,2-Dichloroethene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
cis-1,3-Dichloropropene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Dibromochloromethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Dibromomethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Dichlorodifluoromethane	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354
Ethylbenzene	NELAP	1.00		ND	µg/L	1	06/04/2022 0:04	193354
Hexachlorobutadiene	NELAP	2.00		ND	µg/L	1	06/04/2022 0:04	193354

Client: City Water, Light & Power **Work Order:** 22051752

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 17-Jun-22

Lab ID: 22051752-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 06/02/2022 12:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Iodomethane	NELAP	3.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Methylene chloride	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Naphthalene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
o-Xylene	NELAP	1.00		**ND**	µg/L	1	06/04/2022 0:04	193354
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Styrene	NELAP	1.00		**ND**	µg/L	1	06/04/2022 0:04	193354
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	06/04/2022 0:04	193354
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Toluene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	06/04/2022 0:04	193354
Surr: 1,2-Dichloroethane-d4	*	80-120		**97.4**	%REC	1	06/04/2022 0:04	193354
Surr: 4-Bromofluorobenzene	*	80-120		**100.4**	%REC	1	06/04/2022 0:04	193354
Surr: Dibromofluoromethane	*	80-120		**102.3**	%REC	1	06/04/2022 0:04	193354
Surr: Toluene-d8	*	80-120		**97.4**	%REC	1	06/04/2022 0:04	193354

Allowable Marginal Exceedance of trans-1,4-dichloro-2-butene and 1,2,3-trichloropropane in the laboratory control sample duplicate is verified per the TNI Standard.

Allowable Marginal Exceedance of trans-1,4-dichloro-2-butene in the laboratory control sample is verified per the TNI Standard.

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells G1-G2-G3

Work Order: 22051752
Report Date: 17-Jun-22

Carrier: Joe Riley

Received By: EAH

Completed by: Payton Yoch
On: 03-Jun-22

Reviewed by: Shelly A. Hennessy
On: 06-Jun-22

Pages to follow: Chain of custody 2 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 0.4
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Additional Nitric Acid (82107), Sulfuric Acid (80586), and Sodium Hydroxide (81662) preservatives were needed upon arrival at the laboratory. - pyoch - 6/3/2022 9:27:50 AM

pH strip 78198/75846. - pyoch - 6/3/2022 9:29:22 AM

1250 amber glass jar for G113 was damaged in transit. - pyoch - 6/3/2022 9:37:25 AM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 22051752

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 0.4 °c L1693

Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY

LAB NOTES: Added HNO3 (82107) to sample R101 and dup. Added H2SO4 (80586) to sample R101. Added NaOH (81602) to samples G113, G113 dup, G120. 113 not preserved.

Client Comments: (*) Dup missing sample G113 1250 amber glass unpreserved. Added H2SO4 (80586) to dup. Added NaOH to samples 1312 from dup and AW-2. CEK 6-3-22

Quarter 2 (even number years)
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No
Are these samples known to be hazardous? [ ] Yes [ ] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2-G3

SAMPLE COLLECTOR'S NAME
ERIC STALEY

RESULTS REQUESTED
[ ] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide O&G OOH	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)	VOC Pest-PCB	SVOC-PSIMS	Herbicides	Endothall EDB-DBCP
22051752-001	R101 *	06/2/22 1492	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
002	G110 *	1515	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
003	R111 *	1302	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
004	G112 *	1326	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
005	G113 *	1408	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
006	G120 (*)	1144	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
007	G121	0956	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
008	G122	1025	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
009	AW-1	1232	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
010	AW-2 *	1059	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
011	RW-3 *	06/01/22 1345	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
[signature]	06/03/22 0942	[signature]	6/3/22 0942

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CEK 6-3-2022

Third Quarter 2022

October 11, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 22081061

Dear Eric Staley:

TEKLAB, INC received 15 samples on 8/26/2022 8:00:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22081061
Report Date: 11-Oct-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	22
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 22081061

Client Project: Ash Pond Monitoring Wells **Report Date:** 11-Oct-22

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 22081061

Client Project: Ash Pond Monitoring Wells
Report Date: 11-Oct-22

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 22081061
Client Project: Ash Pond Monitoring Wells
Report Date: 11-Oct-22

Cooler Receipt Temp: 3.0 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 22081061
Client Project: Ash Pond Monitoring Wells
Report Date: 11-Oct-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 22081061

Client Project: Ash Pond Monitoring Wells **Report Date:** 11-Oct-22

Lab ID: 22081061-001 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 08/23/2022 11:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	08/23/2022 11:45	R316831
Depth to water	*	-5.00		**7.08**	ft	1	08/23/2022 11:45	R316831
Depth to water from measuring point	*	0		**9.78**	ft	1	08/23/2022 11:45	R316831
Elevation of groundwater surface	*	0		**529.72**	ft	1	08/23/2022 11:45	R316831
Measuring Point Elevation	*	0		**539.50**	ft	1	08/23/2022 11:45	R316831
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	08/23/2022 11:45	R316831
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	08/23/2022 11:45	R316831
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.4**	°F	1	08/23/2022 11:45	R316831
SW-846 9040B								
pH, Field	*	1.00		**7.11**		1	08/23/2022 11:45	R316831
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**744**	µmhos/cm @25C	1	08/23/2022 11:45	R316831
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**428**	mg/L	1	08/26/2022 12:12	R316361
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10	S	**< 10**	mg/L	1	08/29/2022 13:31	R316392
Matrix spike did not recover within control limits due to matrix interference.								
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.48**	mg/L	1	08/30/2022 16:45	R316443
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**31**	mg/L	1	08/29/2022 13:31	R316398
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.110**	mg/L	1	08/29/2022 16:00	196039
Barium	NELAP	0.0025		**0.158**	mg/L	1	08/29/2022 16:00	196039
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/29/2022 16:00	196039
Boron	NELAP	0.0200		**0.177**	mg/L	1	08/29/2022 16:00	196039
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/29/2022 16:00	196039
Calcium	NELAP	0.100		**72.3**	mg/L	1	08/29/2022 16:00	196039
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:00	196039
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:00	196039
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	08/29/2022 16:00	196039
Lithium	NELAP	0.0050		**0.0064**	mg/L	1	08/29/2022 16:00	196039
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/29/2022 16:00	196039
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/30/2022 17:30	196039
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/30/2022 17:30	196039
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/30/2022 17:30	196039
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/29/2022 10:52	196051
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	09/28/2022 0:00	R319286
Radium-228	*	0		**See attached**	pci/L	1	09/28/2022 0:00	R319286

Client: City Water, Light & Power
Work Order: 22081061
Client Project: Ash Pond Monitoring Wells
Report Date: 11-Oct-22
Lab ID: 22081061-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 08/23/2022 10:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	08/23/2022 10:29	R316831
Depth to water	*	-5.00		**6.37**	ft	1	08/23/2022 10:29	R316831
Depth to water from measuring point	*	0		**8.87**	ft	1	08/23/2022 10:29	R316831
Elevation of groundwater surface	*	0		**527.23**	ft	1	08/23/2022 10:29	R316831
Measuring Point Elevation	*	0		**536.10**	ft	1	08/23/2022 10:29	R316831
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	08/23/2022 10:29	R316831
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	08/23/2022 10:29	R316831
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.0**	°F	1	08/23/2022 10:29	R316831
SW-846 9040B								
pH, Field	*	1.00		**6.45**		1	08/23/2022 10:29	R316831
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1710**	µmhos/cm @25C	1	08/23/2022 10:29	R316831
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1360**	mg/L	1	08/26/2022 12:13	R316361
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**545**	mg/L	20	08/29/2022 14:23	R316392
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.24**	mg/L	1	08/30/2022 16:56	R316443
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**34**	mg/L	1	08/29/2022 14:17	R316398
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	08/29/2022 16:07	196039
Barium	NELAP	0.0025		**0.0751**	mg/L	1	08/29/2022 16:07	196039
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/29/2022 16:07	196039
Boron	NELAP	0.0200		**4.32**	mg/L	1	08/29/2022 16:07	196039
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/29/2022 16:07	196039
Calcium	NELAP	0.100		**241**	mg/L	1	08/29/2022 16:07	196039
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:07	196039
Cobalt	NELAP	0.0050		**0.0115**	mg/L	1	08/29/2022 16:07	196039
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	08/29/2022 16:07	196039
Lithium	NELAP	0.0050		**0.0055**	mg/L	1	08/29/2022 16:07	196039
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/29/2022 16:07	196039
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/30/2022 17:43	196039
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/30/2022 17:43	196039
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/30/2022 17:43	196039
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/29/2022 10:56	196051
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	09/28/2022 0:00	R319286
Radium-228	*	0		**See attached**	pci/L	1	09/28/2022 0:00	R319286

Client: City Water, Light & Power
Work Order: 22081061
Client Project: Ash Pond Monitoring Wells
Report Date: 11-Oct-22
Lab ID: 22081061-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 08/23/2022 10:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	08/23/2022 10:05	R316831
Depth to water	*	-5.00		**9.31**	ft	1	08/23/2022 10:05	R316831
Depth to water from measuring point	*	0		**11.01**	ft	1	08/23/2022 10:05	R316831
Elevation of groundwater surface	*	0		**524.39**	ft	1	08/23/2022 10:05	R316831
Measuring Point Elevation	*	0		**535.40**	ft	1	08/23/2022 10:05	R316831
Measuring Point Height Above Land Surface	*	0		**1.70**	ft	1	08/23/2022 10:05	R316831
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.0**	NTU	1	08/23/2022 10:05	R316831
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.9**	°F	1	08/23/2022 10:05	R316831
SW-846 9040B								
pH, Field	*	1.00		**6.60**		1	08/23/2022 10:05	R316831
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1090**	µmhos/cm @25C	1	08/23/2022 10:05	R316831
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1030**	mg/L	1	08/26/2022 12:13	R316361
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**384**	mg/L	10	08/29/2022 14:43	R316392
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.23**	mg/L	1	08/30/2022 16:58	R316443
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**47**	mg/L	1	08/29/2022 14:25	R316398
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	08/29/2022 16:11	196039
Barium	NELAP	0.0025		**0.0883**	mg/L	1	08/29/2022 16:11	196039
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/29/2022 16:11	196039
Boron	NELAP	0.0200		**14.8**	mg/L	1	08/29/2022 16:11	196039
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/29/2022 16:11	196039
Calcium	NELAP	0.100		**157**	mg/L	1	08/29/2022 16:11	196039
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:11	196039
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:11	196039
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	08/29/2022 16:11	196039
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:11	196039
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/29/2022 16:11	196039
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/30/2022 18:14	196039
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/30/2022 18:14	196039
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/30/2022 18:14	196039
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/29/2022 10:58	196051
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	09/28/2022 0:00	R319286
Radium-228	*	0		**See attached**	pci/L	1	09/28/2022 0:00	R319286

Client: City Water, Light & Power
Work Order: 22081061
Client Project: Ash Pond Monitoring Wells
Report Date: 11-Oct-22
Lab ID: 22081061-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 08/25/2022 11:49

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	08/25/2022 11:49	R316831
Depth to water	*	-5.00		**8.55**	ft	1	08/25/2022 11:49	R316831
Depth to water from measuring point	*	0		**11.21**	ft	1	08/25/2022 11:49	R316831
Elevation of groundwater surface	*	0		**527.81**	ft	1	08/25/2022 11:49	R316831
Measuring Point Elevation	*	0		**539.02**	ft	1	08/25/2022 11:49	R316831
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	08/25/2022 11:49	R316831
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	08/25/2022 11:49	R316831
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.7**	°F	1	08/25/2022 11:49	R316831
SW-846 9040B								
pH, Field	*	1.00		**7.12**		1	08/25/2022 11:49	R316831
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**525**	µmhos/cm @25C	1	08/25/2022 11:49	R316831
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**290**	mg/L	1	08/26/2022 12:14	R316361
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**15**	mg/L	1	08/29/2022 15:39	R316392
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.37**	mg/L	1	08/30/2022 17:06	R316443
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**36**	mg/L	1	08/29/2022 15:39	R316398
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.0376**	mg/L	1	08/29/2022 16:22	196039
Barium	NELAP	0.0025		**0.119**	mg/L	1	08/29/2022 16:22	196039
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/29/2022 16:22	196039
Boron	NELAP	0.0200		**0.204**	mg/L	1	08/29/2022 16:22	196039
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/29/2022 16:22	196039
Calcium	NELAP	0.100		**46.4**	mg/L	1	08/29/2022 16:22	196039
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:22	196039
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:22	196039
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	08/29/2022 16:22	196039
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:22	196039
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/29/2022 16:22	196039
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/30/2022 18:33	196039
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/30/2022 18:33	196039
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/30/2022 18:33	196039
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/29/2022 11:17	196051
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	09/28/2022 0:00	R319286
Radium-228	*	0		**See attached**	pci/L	1	09/28/2022 0:00	R319286

Client: City Water, Light & Power
Work Order: 22081061
Client Project: Ash Pond Monitoring Wells
Report Date: 11-Oct-22
Lab ID: 22081061-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 08/23/2022 13:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	08/23/2022 13:29	R316831
Depth to water	*	-5.00		**4.40**	ft	1	08/23/2022 13:29	R316831
Depth to water from measuring point	*	0		**7.30**	ft	1	08/23/2022 13:29	R316831
Elevation of groundwater surface	*	0		**529.90**	ft	1	08/23/2022 13:29	R316831
Measuring Point Elevation	*	0		**537.20**	ft	1	08/23/2022 13:29	R316831
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	08/23/2022 13:29	R316831
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	08/23/2022 13:29	R316831
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.6**	°F	1	08/23/2022 13:29	R316831
SW-846 9040B								
pH, Field	*	1.00		**6.76**		1	08/23/2022 13:29	R316831
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**814**	µmhos/cm @25C	1	08/23/2022 13:29	R316831
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**540**	mg/L	2.5	08/26/2022 12:15	R316361
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	08/29/2022 15:47	R316392
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.30**	mg/L	1	08/30/2022 17:08	R316443
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**27**	mg/L	1	08/29/2022 15:47	R316398
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.0377**	mg/L	1	08/29/2022 16:52	196039
Barium	NELAP	0.0025		**0.355**	mg/L	1	08/29/2022 16:52	196039
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/29/2022 16:52	196039
Boron	NELAP	0.0200		**0.0839**	mg/L	1	08/30/2022 13:12	196039
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/29/2022 16:52	196039
Calcium	NELAP	0.100		**96.1**	mg/L	1	08/29/2022 16:52	196039
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:52	196039
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/29/2022 16:52	196039
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	08/29/2022 16:52	196039
Lithium	NELAP	0.0050		**0.0065**	mg/L	1	08/29/2022 16:52	196039
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/29/2022 16:52	196039
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/30/2022 18:39	196039
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/30/2022 18:39	196039
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/30/2022 18:39	196039
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/29/2022 11:19	196051
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	09/28/2022 0:00	R319286
Radium-228	*	0		**See attached**	pci/L	1	09/28/2022 0:00	R319286

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22081061
Report Date: 11-Oct-22

Carrier: Adam Bridges

Received By: EAH

Completed by: Reannan Willis
On: 26-Aug-22

Reviewed by: Elizabeth A. Hurley
On: 26-Aug-22

Pages to follow: Chain of custody 2 Extra pages included 36

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 3.0
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #82999. - BNB/rwillis - 8/26/2022 9:15:00 AM

Additional Nitric Acid (83663) was needed in all samples for Ra226/228 analysis except on AP-13 container upon arrival at the laboratory. - rwillis - 8/26/2022 9:15:03 AM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 72081061

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 3.0 °C
Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY VTB3
LAB NOTES: 82999. BLB 8/26/22
Added HNO3 (83 ml) to all SUB 2L bottles except AP-13 Secon

Client Comments: SUB bottle. RMW 8/26/22

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☑ No Permit on file

*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
22081061-001	RW-3	08/23/22 1145	Groundwater	1	3								✔	✔	✔	✔	✔	✔
002	AP-1	08/23/22 1056	Groundwater	1	3								✔	✔	✔	✔	✔	✔
003	AP-2	08/23/22 1029	Groundwater	1	3								✔	✔	✔	✔	✔	✔
004	AP-3	08/23/22 1005	Groundwater	1	3								✔	✔	✔	✔	✔	✔
005	AP-4	08/23/22 1444	Groundwater	1	3								✔	✔	✔	✔	✔	✔
006	AP-5	08/23/22 1508	Groundwater	1	3								✔	✔	✔	✔	✔	✔
007	AP-6	08/25/22 1408	Groundwater	1	3								✔	✔	✔	✔	✔	✔
008	AP-7	08/25/22 1149	Groundwater	1	3								✔	✔	✔	✔	✔	✔
009	AP-8	08/23/22 1329	Groundwater	1	3								✔	✔	✔	✔	✔	✔
010	AP-9	08/25/22 1249	Groundwater	1	3								✔	✔	✔	✔	✔	✔
011	AP-10	08/23/22 1245	Groundwater	1	3								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	08/26/22		08-26-22 0750
	08-26-22 0800		8/26/22 0800

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

GAH 8/26/22

Print PDF

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 22081061

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
22081061-012	AP-11	08/25/22 1425	Groundwater	1	3								✔	✔	✔	✔	✔	✔
013	AP-12	08/25/22 1411	Groundwater	1	3								✔	✔	✔	✔	✔	✔
014	AP-13	08/25/22 1357	Groundwater	1	3								✔	✔	✔	✔	✔	✔
015	AP-14	08/24/22 1705	Groundwater	1	3								✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	08/26/22		8-26-22 0750
	8-26-22 0800	Elizabeth A Hartley	8/26/22 0800

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

October 11, 2022

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 22081061

Order No.: 22090086

Dear Shelly Hennessy:

Summit Environmental Technologies, Inc. received 15 sample(s) on 8/31/2022 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 011, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **22090086**
Date: **10/11/2022**

CLIENT: TEKLAB Inc,
Project: 22081061

WorkOrder Narrative:
22090086: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence Sample Notes:
22090086-001A Radium-228_NPW(904.0): Sample and Sample Duplicate exhibited high RPD for Radium-228 possibly due to sample matrix interference.
22090086-002A Radium-228_NPW(904.0): Sample and Sample Duplicate exhibited high RPD for Radium-228 possibly due to sample matrix interference.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **22090086**
Date: **10/11/2022**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **22090086**
11-Oct-22

CLIENT: TEKLAB Inc,
Project: 22081061

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
22090086-001	22081061-001		8/23/2022 11:45:00 AM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-002	22081061-002		8/23/2022 10:56:00 AM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-003	22081061-003		8/23/2022 10:29:00 AM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-004	22081061-004		8/23/2022 10:05:00 AM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-005	22081061-005		8/23/2022 2:44:00 PM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-006	22081061-006		8/23/2022 3:08:00 PM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-007	22081061-007		8/23/2022 2:08:00 PM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-008	22081061-008		8/25/2022 11:49:00 AM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-009	22081061-009		8/23/2022 1:29:00 PM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-010	22081061-010		8/25/2022 12:49:00 PM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-011	22081061-011		8/23/2022 12:45:00 PM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-012	22081061-012		8/25/2022 2:25:00 PM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-013	22081061-013		8/25/2022 2:11:00 PM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-014	22081061-014		8/25/2022 1:51:00 PM	8/31/2022 2:50:00 PM	Non-Potable Water
22090086-015	22081061-015		8/24/2022 5:09:00 PM	8/31/2022 2:50:00 PM	Non-Potable Water

Summit Environmental Technologies, Inc.
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DATES REPORT

WO#: **22090086**

11-Oct-22

Client: TEKLAB Inc,

Project: 22081061

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
22090086-001A	22081061-001	8/23/2022 11:45:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-002A	22081061-002	8/23/2022 10:56:00 AM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-003A	22081061-003	8/23/2022 10:29:00 AM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-004A	22081061-004	8/23/2022 10:05:00 AM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-005A	22081061-005	8/23/2022 2:44:00 PM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-006A	22081061-006	8/23/2022 3:08:00 PM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-007A	22081061-007	8/23/2022 2:08:00 PM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-008A	22081061-008	8/25/2022 11:49:00 AM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-009A	22081061-009	8/23/2022 1:29:00 PM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-010A	22081061-010	8/25/2022 12:49:00 PM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-011A	22081061-011	8/23/2022 12:45:00 PM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM
				Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-012A	22081061-012	8/25/2022 2:25:00 PM		Radium-226 (EPA 903.0)		9/19/2022 12:05:00 PM	9/30/2022 11:26:00 AM

Original

Summit Environmental Technologies, Inc.
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DATES REPORT

WO#: **22090086**

11-Oct-22

Client: TEKLAB Inc,

Project: 22081061

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
22090086-012A	22081061-012	8/25/2022 2:25:00 PM	Non-Potable Water	Radium-228 (EPA 904.0)		9/19/2022 12:05:00 PM	9/28/2022 4:07:00 PM
22090086-013A	22081061-013	8/25/2022 2:11:00 PM		Radium-226 (EPA 903.0)		9/21/2022 10:25:00 AM	10/8/2022 10:50:00 AM
				Radium-228 (EPA 904.0)		9/21/2022 10:25:00 AM	10/7/2022 2:53:00 PM
22090086-014A	22081061-014	8/25/2022 1:51:00 PM		Radium-226 (EPA 903.0)		9/21/2022 10:25:00 AM	10/8/2022 10:50:00 AM
				Radium-228 (EPA 904.0)		9/21/2022 10:25:00 AM	10/7/2022 2:53:00 PM
22090086-015A	22081061-015	8/24/2022 5:09:00 PM		Radium-226 (EPA 903.0)		9/21/2022 10:25:00 AM	10/8/2022 10:50:00 AM
				Radium-228 (EPA 904.0)		9/21/2022 10:25:00 AM	10/7/2022 2:53:00 PM

Original

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Analytical Report

(consolidated)

WO#: **22090086**

Date Reported: **10/11/2022**

CLIENT: TEKLAB Inc,

Collection Date: 8/23/2022 11:45:00 AM

Project: 22081061

Lab ID: 22090086-001

Matrix: NON-POTABLE WATER

Client Sample ID: 22081061-001

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.1	1	9/30/2022 11:26:00 AM
Yield	0.960					1	9/30/2022 11:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00	QDR	pCi/L	± 0.53	1	9/28/2022 4:07:00 PM
Yield	1.00					1	9/28/2022 4:07:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22090086**

Date Reported: **10/11/2022**

CLIENT: TEKLAB Inc,
Collection Date: 8/23/2022 10:29:00 AM
Project: 22081061
Lab ID: 22090086-003
Matrix: NON-POTABLE WATER
Client Sample ID: 22081061-003

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.08	1	9/30/2022 11:26:00 AM
Yield	0.960					1	9/30/2022 11:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.66	1	9/28/2022 4:07:00 PM
Yield	1.00					1	9/28/2022 4:07:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22090086**

Date Reported: **10/11/2022**

CLIENT: TEKLAB Inc,
Project: 22081061
Lab ID: 22090086-004
Client Sample ID: 22081061-004

Collection Date: 8/23/2022 10:05:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.09	1	9/30/2022 11:26:00 AM
Yield	0.970					1	9/30/2022 11:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.56	1	9/28/2022 4:07:00 PM
Yield	1.00					1	9/28/2022 4:07:00 PM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22090086**

Date Reported: **10/11/2022**

CLIENT: TEKLAB Inc,
Project: 22081061
Lab ID: 22090086-008
Client Sample ID: 22081061-008

Collection Date: 8/25/2022 11:49:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.05	1	9/30/2022 11:26:00 AM
Yield	0.980					1	9/30/2022 11:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.76	1	9/28/2022 4:07:00 PM
Yield	1.00					1	9/28/2022 4:07:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **22090086**

Date Reported: **10/11/2022**

CLIENT: TEKLAB Inc,
Collection Date: 8/23/2022 1:29:00 PM
Project: 22081061
Lab ID: 22090086-009
Matrix: NON-POTABLE WATER
Client Sample ID: 22081061-009

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.16	1	9/30/2022 11:26:00 AM
Yield	1.00					1	9/30/2022 11:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.55	1	9/28/2022 4:07:00 PM
Yield	1.00					1	9/28/2022 4:07:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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QC SUMMARY REPORT

WO#: **22090086**

11-Oct-22

Client: TEKLAB Inc,
Project: 22081061 **BatchID:** **59620**

Sample ID: **22090086-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/19/2022** RunNo: **151169**
Client ID: **22081061-001** Batch ID: **59620** TestNo: **E904.0** **E903-904** Analysis Date: **9/28/2022** SeqNo: **4020063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.01	1.00		0	0			0	200	30	R
Yield	0.970			0	0			1.000	3.05		

Sample ID: **22090086-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/19/2022** RunNo: **151169**
Client ID: **22081061-002** Batch ID: **59620** TestNo: **E904.0** **E903-904** Analysis Date: **9/28/2022** SeqNo: **4020065**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22090086**

11-Oct-22

Client: TEKLAB Inc,
Project: 22081061 **BatchID:** **59620**

Sample ID: **MB-59620**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/19/2022**	RunNo: **151169**
Client ID: **PBW**	Batch ID: **59620**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/28/2022**	SeqNo: **4019852**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCSD-59620**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/19/2022**	RunNo: **151169**
Client ID: **LCSS02**	Batch ID: **59620**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/28/2022**	SeqNo: **4019854**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.63	1.00	5.000	0	72.6	70	130	2.870	23.4	20	
Yield	0.760			0	0			1.000	27.3		

Sample ID: **RLCD-59620**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/19/2022**	RunNo: **151169**
Client ID: **BatchQC**	Batch ID: **59620**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/28/2022**	SeqNo: **4019857**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	70.0	50	150				
Yield	1.00			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22090086**

11-Oct-22

Client: TEKLAB Inc,

Project: 22081061 **BatchID:** **59620**

Sample ID: **22090083-001AMS** SampType: **MS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/19/2022** RunNo: **151169**

Client ID: **BatchQC** Batch ID: **59620** TestNo: **E904.0** **E903-904** Analysis Date: **9/28/2022** SeqNo: **4019858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.22	1.00	5.000	0.8500	87.4	70	130				
Yield	0.650			1.000	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22090086**

11-Oct-22

Client: TEKLAB Inc,
Project: 22081061 **BatchID:** **59620**

Sample ID: **22090086-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/19/2022**	RunNo: **151257**
Client ID: **22081061-001**	Batch ID: **59620**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/30/2022**	SeqNo: **4022516**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.900							0.9600	6.45	0	

Sample ID: **22090086-002ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/19/2022**	RunNo: **151257**
Client ID: **22081061-002**	Batch ID: **59620**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/30/2022**	SeqNo: **4022518**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **22090086**

11-Oct-22

Client: TEKLAB Inc,
Project: 22081061 **BatchID:** **59620**

Sample ID: **MB-59620**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/19/2022**	RunNo: **151257**
Client ID: **PBW**	Batch ID: **59620**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/30/2022**	SeqNo: **4022506**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.920										

Sample ID: **LCS-59620**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/19/2022**	RunNo: **151257**
Client ID: **LCSW**	Batch ID: **59620**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/30/2022**	SeqNo: **4022507**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.42	1.00	5.000	0	108	70	130				

Sample ID: **RLC-59620**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/19/2022**	RunNo: **151257**
Client ID: **BatchQC**	Batch ID: **59620**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/30/2022**	SeqNo: **4022510**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.20	1.00	1.000	0	120	50	150				

Sample ID: **RLCD-59620**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/19/2022**	RunNo: **151257**
Client ID: **BatchQC**	Batch ID: **59620**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/30/2022**	SeqNo: **4022511**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22090086**
11-Oct-22

Client: TEKLAB Inc,
Project: 22081061 **BatchID:** **59620**

Sample ID: **RLCD-59620**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/19/2022**	RunNo: **151257**
Client ID: **BatchQC**	Batch ID: **59620**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/30/2022**	SeqNo: **4022511**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.11	1.00	1.000	0	111	50	150				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
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TEL: (330) 253-8211 FAX: (330) 253-4489
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QC SUMMARY REPORT

WO#: **22090086**
11-Oct-22

Client: TEKLAB Inc,
Project: 22081061 **BatchID:** **59674**

Sample ID: **MB-59674**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/21/2022**	RunNo: **151629**
Client ID: **PBW**	Batch ID: **59674**	TestNo: **E904.0**	**E903-904**	Analysis Date: **10/7/2022**	SeqNo: **4035726**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.950			0	0						

Sample ID: **LCSD-59674**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/21/2022**	RunNo: **151629**
Client ID: **LCSS02**	Batch ID: **59674**	TestNo: **E904.0**	**E903-904**	Analysis Date: **10/7/2022**	SeqNo: **4035728**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.83	1.00	5.000	0	76.6	70	130	1.950	65.1	20	
Yield	1.00			0	0			0.5500	58.1		

Sample ID: **RLCD-59674**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/21/2022**	RunNo: **151629**
Client ID: **BatchQC**	Batch ID: **59674**	TestNo: **E904.0**	**E903-904**	Analysis Date: **10/7/2022**	SeqNo: **4035731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.17	1.00	1.000	0	117	50	150				
Yield	1.00			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22090086**
11-Oct-22

Client: TEKLAB Inc,
Project: 22081061 **BatchID:** **59674**

Sample ID: **22090315-001AMS**	SampType: **MS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/21/2022**	RunNo: **151629**
Client ID: **BatchQC**	Batch ID: **59674**	TestNo: **E904.0**	**E903-904**	Analysis Date: **10/7/2022**	SeqNo: **4035732**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.71	1.00	5.000	0	74.2	70	130				
Yield	0.740			1.000	0						

Sample ID: **22090381-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/21/2022**	RunNo: **151629**
Client ID: **BatchQC**	Batch ID: **59674**	TestNo: **E904.0**	**E903-904**	Analysis Date: **10/7/2022**	SeqNo: **4035746**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	0.970			0	0			0.8700	10.9		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22090086**

11-Oct-22

Client: TEKLAB Inc,
Project: 22081061 **BatchID:** **59674**

Sample ID: **MB-59674**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/21/2022**	RunNo: **151642**
Client ID: **PBW**	Batch ID: **59674**	TestNo: **E903.0**	**E903-904**	Analysis Date: **10/8/2022**	SeqNo: **4036069**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	ND										

Sample ID: **LCS-59674**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/21/2022**	RunNo: **151642**
Client ID: **LCSW**	Batch ID: **59674**	TestNo: **E903.0**	**E903-904**	Analysis Date: **10/8/2022**	SeqNo: **4036070**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.91	1.00	5.000	0	118	70	130				

Sample ID: **LCSD-59674**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/21/2022**	RunNo: **151642**
Client ID: **LCSS02**	Batch ID: **59674**	TestNo: **E903.0**	**E903-904**	Analysis Date: **10/8/2022**	SeqNo: **4036071**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.17	1.00	5.000	0	103	70	130	5.910	13.4	20	

Sample ID: **RLC-59674**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/21/2022**	RunNo: **151642**
Client ID: **BatchQC**	Batch ID: **59674**	TestNo: **E903.0**	**E903-904**	Analysis Date: **10/8/2022**	SeqNo: **4036073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22090086**

11-Oct-22

Client: TEKLAB Inc,
Project: 22081061 **BatchID:** **59674**

Sample ID: **RLC-59674** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/21/2022** RunNo: **151642**
Client ID: **BatchQC** Batch ID: **59674** TestNo: **E903.0** **E903-904** Analysis Date: **10/8/2022** SeqNo: **4036073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.11	1.00	1.000	0	111	50	150				

Sample ID: **RLCD-59674** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/21/2022** RunNo: **151642**
Client ID: **BatchQC** Batch ID: **59674** TestNo: **E903.0** **E903-904** Analysis Date: **10/8/2022** SeqNo: **4036074**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.12	1.00	1.000	0	112	50	150				

Sample ID: **22090315-001AMS** SampType: **MS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/21/2022** RunNo: **151642**
Client ID: **BatchQC** Batch ID: **59674** TestNo: **E903.0** **E903-904** Analysis Date: **10/8/2022** SeqNo: **4036075**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.51	1.00	5.000	0	110	70	130				

Sample ID: **22090347-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/21/2022** RunNo: **151642**
Client ID: **BatchQC** Batch ID: **59674** TestNo: **E903.0** **E903-904** Analysis Date: **10/8/2022** SeqNo: **4036084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22090086**
11-Oct-22

Client: TEKLAB Inc,
Project: 22081061 **BatchID:** **59674**

Sample ID: **22090347-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/21/2022** RunNo: **151642**
Client ID: **BatchQC** Batch ID: **59674** TestNo: **E903.0** **E903-904** Analysis Date: **10/8/2022** SeqNo: **4036084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Yield	ND							0	0	0	

Sample ID: **22090381-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/21/2022** RunNo: **151642**
Client ID: **BatchQC** Batch ID: **59674** TestNo: **E903.0** **E903-904** Analysis Date: **10/8/2022** SeqNo: **4036087**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	ND							0	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

TEKLAB, INC. Chain of Custody

22090086

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Client | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium (226 and 228) by method EPA903.0/904.0
on your standard turnaround time.
Batch QC is required with the report. Receipt summary requested. State of Origin: IL

Project# 22081061

Contact: Shelly A. Hennessy | Email: SHennessy@TekLabInc.com
Requested Due Date: 20 business days or less | Billing/PO: 33267 | Phone: (618) 344-1004

PLEASE NOTE

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	pH	PPM
	22081061-001	8/23/22 1145	HNO3	Aqueous	✓	✓	1	24,28
	22081061-002	8/23/22 1056	HNO3	Aqueous	✓	✓	1	30,25
	22081061-003	8/23/22 1029	HNO3	Aqueous	✓	✓	1	23,14
	22081061-004	8/23/22 1005	HNO3	Aqueous	✓	✓	1	15, 19
	22081061-005	8/23/22 1444	HNO3	Aqueous	✓	✓	1	17, 27
	22081061-006	8/23/22 1508	HNO3	Aqueous	✓	✓	1	21, 23
	22081061-007	8/23/22 1408	HNO3	Aqueous	✓	✓	1	42 3-2
	22081061-008	8/23/22 1149	HNO3	Aqueous	✓	✓	1	25 121
	22081061-009	8/23/22 1309	HNO3	Aqueous	✓	✓	1	33, 13
	22081061-010	8/25/22 1249	HNO3	Aqueous	✓	✓	1	30, 27
	22081061-011	8/23/22 1245	HNO3	Aqueous	✓	✓	1	23, 6

*Relinquished By	Date/Time	Received By	Date/Time
Roxanna Willis	8/29/22 1800	FedEx	
			8-31-22/1450

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA 3/2/2016

Page 1 of 2

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved In: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Client | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium (226 and 228) by method EPA903.0/904.0
on your standard turnaround time.
Batch QC is required with the report. Receipt summary requested. State of Origin: IL

Project# 22081061

Contact: Shelly A. Hennessy | Email: SHennessy@TekLabInc.com
Requested Due Date: 20 business days or less | Billing/PO: 33267
Phone: (618) 344-1004

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228											OH	CPM
	22081061-012	8/25/22 1405	HNO3	Aqueous	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	14	6, 10
	22081061-013	8/25/22 1411	HNO3	Aqueous	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	14	33, 23
	22081061-014	8/25/22 1351	HNO3	Aqueous	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	11	22, 3
	22081061-015	8/24/22 1709	HNO3	Aqueous	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1	27, 6
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

*Relinquished By	Date/Time	Received By	Date/Time
Roarman Wilkins	8/29/22 1800	Fedex	
			8-30-22 / 1450

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights,

SubCocRevA

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **22090086** RcptNo: **1**

Logged by:	**Anthony W. Britton**	**8/31/2022 2:50:00 PM**	Anthony Britton
Completed By:	**Anthony W. Britton**	**9/1/2022 5:41:25 PM**	Anthony Britton
Reviewed By:	**Jennifer Woolf**	**9/6/2022 1:02:42 PM**	Jennifer Woolf

Chain of Custody

1.	Were seals intact?	Yes ☑	No ☐	Not Present ☐
2.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3.	How was the sample delivered?	FedEx		

Log In

4.	Coolers are present?	Yes ☐	No ☑	NA ☐
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	19.0	Good	Not Present			
2	18.2	Good	Not Present			
3	18.8	Good	Not Present			

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **22090086** RcptNo: **1**

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
4	17.8	Good	Not Present			

September 19, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Landfill Monitoring Wells **WorkOrder:** 22081060

Dear Eric Staley:

TEKLAB, INC received 12 samples on 8/25/2022 9:21:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 22081060
Report Date: 19-Sep-22

This reporting package includes the following:

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Client: City Water, Light & Power **Work Order:** 22081060

Client Project: Landfill Monitoring Wells **Report Date:** 19-Sep-22

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

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Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 22081060
Client Project: Landfill Monitoring Wells
Report Date: 19-Sep-22

Cooler Receipt Temp: 5.8 °C

An employee of Teklab, Inc. collected the sample(s).

G110 was not collected; the well was broken.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 22081060

Client Project: Landfill Monitoring Wells

Report Date: 19-Sep-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power
Work Order: 22081060
Client Project: Landfill Monitoring Wells
Report Date: 19-Sep-22
Lab ID: 22081060-009
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 08/24/2022 12:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	08/24/2022 12:15	R316840
Depth to water	*	-5.00		**13.54**	ft	1	08/24/2022 12:15	R316840
Depth to water from measuring point	*	0		**16.29**	ft	1	08/24/2022 12:15	R316840
Elevation of groundwater surface	*	0		**539.31**	ft	1	08/24/2022 12:15	R316840
Measuring Point Elevation	*	0		**555.60**	ft	1	08/24/2022 12:15	R316840
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.3**	°F	1	08/24/2022 12:15	R316840
SW-846 9040B								
pH, Field	*	1.00		**6.64**		1	08/24/2022 12:15	R316840
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1450**	µmhos/cm @25C	1	08/24/2022 12:15	R316840
EPA 1664A								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	08/29/2022 9:13	R316376
EPA 600 350.1 (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.86**	mg/L	1	08/29/2022 16:20	R316348
EPA 600 353.2 R2.0 (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	08/25/2022 16:14	R316284
STANDARD METHODS 2540 C (DISSOLVED) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1090**	mg/L	2.5	08/26/2022 9:02	R316361
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	08/26/2022 12:35	196008
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	100		**343**	mg/L	10	08/29/2022 12:25	R316392
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	1		**40**	mg/L	1	08/29/2022 12:19	R316398
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**7360**	µg/L	1	08/26/2022 19:11	196021
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	08/26/2022 19:11	196021
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	08/26/2022 19:11	196021
Magnesium	NELAP	0.050		**80.1**	mg/L	1	08/26/2022 19:11	196021
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	08/26/2022 19:11	196021
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Boron	NELAP	20.0		**7780**	µg/L	1	08/29/2022 17:10	166607
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**163**	µg/L	5	08/26/2022 14:21	196021
Lead	NELAP	1.0		**< 1.0**	µg/L	5	08/26/2022 14:21	196021
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	1.0		**192**	µg/L	5	08/29/2022 20:06	166607
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	08/26/2022 14:27	196019

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 22081060
Report Date: 19-Sep-22

Carrier: Joseph Riley

Completed by: Elizabeth A. Hurley
On: 25-Aug-22

Received By: EAH

Reviewed by: Shelly A. Hennessy
On: 25-Aug-22

Pages to follow: Chain of custody 2 Extra pages included 10

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 5.8
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

R111 and G113 were filtered and preserved with nitric acid (83663) and sulfuric acid (83463) for the dissolved parameters upon arrival at the laboratory. - RMW/ehurley - 8/25/2022 9:55:42 AM

Additional sodium hydroxide (81662) was needed in R101, G112, G113, G120, G121, G122, AW-1, AW-2, RW-3, and DUP upon arrival at the laboratory; only RW-3 reached the desired pH range. Additional nitric acid (83663) was needed in G120, DUP, G111, and G113. - RMW/BNB/ehurley - 8/25/2022 9:56:39 AM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 22081060

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 5.8 °C
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY 1761
LAB NOTES: Added NaOH (81662) to R101, G112, G113, G120, G121, G122, AW1, AW2, RW3 + Dup. Only RW3 preserved.

Client Comments: (X) Filter in Lab ☆ DUP
Quarters 1, 3, & 4 Added (83663) HNO3 to G120 and Duplicate, G111, and G112. Added H2SO4 (83664) to R113 and R111.
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Bis(2-ethylhexyl)phthalate

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER
Landfill Monitoring Wells

SAMPLE COLLECTOR'S NAME
J. RILEY

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID		Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Nitrate Ammonia (D)	Metals (D)**	Cyanide	Cl SO4 TDS (D)	BOD	Mn (T)	NH3 As K (T)	Nitrate (T)	Phenols	B Mg (T)	NH3 B SVOC***	B (T)	As(T)	Oil ar Grea
22081060-001	R101		08/24/22 1419	Groundwater	2	2	1	1						✓	✓	✓	✓	✓	✓	✓									
002	G110		BROKEN	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓										
003	R111	(X)	08/24/22 1259	Groundwater	2	2	1	2						✓	✓	✓	✓	✓			✓								
004	G112		08/24/22 1325	Groundwater	2	1	1	1						✓	✓	✓	✓	✓				✓							
005	G113	(X)	08/24/22 1356	Groundwater	2	1	1	2						✓	✓	✓	✓	✓	✓				✓						
006	G120		08/23/22 1639	Groundwater	2	2	1	1						✓	✓	✓	✓	✓						✓					
007	G121		08/23/22 1601	Groundwater	3	2	1	2						✓	✓	✓	✓	✓							✓				
008	G122		08/23/22 1540	Groundwater	2	2	1	1						✓	✓	✓	✓	✓	✓							✓			
009	AW-1		08/24/22 1215	Groundwater	2	2	1	2						✓	✓	✓	✓	✓								✓	✓		X
010	AW-2	☆	08/24/22 1239	Groundwater	2	2	1	1						✓	✓	✓	✓	✓								✓			
011	RW-3		08/24/22 1145	Groundwater	2	2	1	1						✓	✓	✓	✓	✓									✓		

Relinquished By	Date/Time	Received By	Date/Time
	08/25/22 0921	Elizabeth A Hurley	8/25/22 0921

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

RMW/SRA 8/25/22

Print PDF

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 22081060

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Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
Quarters 1, 3, & 4
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER: Landfill Monitoring Wells
SAMPLE COLLECTOR'S NAME:

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)
22081060-012	DUPLICATE	08/24/22 1239	Groundwater	1	1	1	1							✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
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Relinquished By	Date/Time	Received By	Date/Time
	8/25/22 0921 TE 8/25/22		8/25/22 0921

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Well ID	Date	Time	DTW	Drawdown	Temp C	pH	Cond.	DO	Turbidity	ORP	Clarity	Purge	DTB
AW-1		1130	16.29										
		1209	18.32	2.03	15.7	6.63	1450						
		1212	18.48	0.16	15.7	6.64	1450						
		1215	18.5	0.02	15.7	6.64	1450		Slight		SL Cloud	1.95	
Final	8/24/2022	1215	16.29	0.02	15.7	6.64	1450		Slight		SL Cloud	1.95	
								Lt brown no odor					

Fourth Quarter 2022

December 19, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 22110359

Dear Eric Staley:

TEKLAB, INC received 15 samples on 11/10/2022 8:20:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22110359
Report Date: 19-Dec-22

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DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
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IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
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TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power

Work Order: 22110359

Client Project: Ash Pond Monitoring Wells

Report Date: 19-Dec-22

Qualifiers

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- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22110359
Report Date: 19-Dec-22

Cooler Receipt Temp: 4.8 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Pace Analytical National. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
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Kansas City

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Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22110359
Report Date: 19-Dec-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 22110359

Client Project: Ash Pond Monitoring Wells **Report Date:** 19-Dec-22

Lab ID: 22110359-001 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 11/08/2022 13:33

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	11/08/2022 13:33	R321096
Depth to water	*	-5.00		**8.09**	ft	1	11/08/2022 13:33	R321096
Depth to water from measuring point	*	0		**10.79**	ft	1	11/08/2022 13:33	R321096
Elevation of groundwater surface	*	0		**528.71**	ft	1	11/08/2022 13:33	R321096
Measuring Point Elevation	*	0		**539.50**	ft	1	11/08/2022 13:33	R321096
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	11/08/2022 13:33	R321096
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	11/08/2022 13:33	R321096
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.5**	°F	1	11/08/2022 13:33	R321096
SW-846 9040B								
pH, Field	*	1.00		**7.21**		1	11/08/2022 13:33	R321096
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1030**	µmhos/cm @25C	1	11/08/2022 13:33	R321096
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**425**	mg/L	2.5	11/15/2022 7:05	R321202
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10	S	**< 10**	mg/L	1	11/23/2022 10:36	R321591
Matrix spike did not recover within control limits. Results verified by reanalysis at dilution.								
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.43**	mg/L	1	11/14/2022 14:43	R321052
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**30**	mg/L	1	11/23/2022 10:36	R321589
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.142**	mg/L	1	11/14/2022 17:54	199975
Barium	NELAP	0.0025		**0.166**	mg/L	1	11/14/2022 17:54	199975
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/14/2022 17:54	199975
Boron	NELAP	0.0200		**0.192**	mg/L	1	11/16/2022 21:05	199975
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/14/2022 17:54	199975
Calcium	NELAP	0.100		**72.7**	mg/L	1	11/14/2022 17:54	199975
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/14/2022 17:54	199975
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/14/2022 17:54	199975
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/14/2022 17:54	199975
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	11/14/2022 17:54	199975
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/14/2022 17:54	199975
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2022 11:17	199975
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2022 11:17	199975
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/15/2022 11:17	199975
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/11/2022 21:27	199972
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/06/2022 0:00	R322549
Radium-228	*	0		**See Attached**	pci/L	1	12/06/2022 0:00	R322549

Client: City Water, Light & Power
Work Order: 22110359
Client Project: Ash Pond Monitoring Wells
Report Date: 19-Dec-22
Lab ID: 22110359-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 11/08/2022 10:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	11/08/2022 10:56	R321096
Depth to water	*	-5.00		**5.36**	ft	1	11/08/2022 10:56	R321096
Depth to water from measuring point	*	0		**7.86**	ft	1	11/08/2022 10:56	R321096
Elevation of groundwater surface	*	0		**528.24**	ft	1	11/08/2022 10:56	R321096
Measuring Point Elevation	*	0		**536.10**	ft	1	11/08/2022 10:56	R321096
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	11/08/2022 10:56	R321096
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	11/08/2022 10:56	R321096
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.4**	°F	1	11/08/2022 10:56	R321096
SW-846 9040B								
pH, Field	*	1.00		**6.52**		1	11/08/2022 10:56	R321096
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2170**	µmhos/cm @25C	1	11/08/2022 10:56	R321096
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1310**	mg/L	1	11/15/2022 7:06	R321202
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**643**	mg/L	20	11/23/2022 11:24	R321591
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.22**	mg/L	1	11/14/2022 14:48	R321052
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**34**	mg/L	1	11/23/2022 11:18	R321589
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	11/14/2022 18:01	199975
Barium	NELAP	0.0025		**0.0734**	mg/L	1	11/14/2022 18:01	199975
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/14/2022 18:01	199975
Boron	NELAP	0.0200		**4.08**	mg/L	1	11/17/2022 16:05	199975
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/14/2022 18:01	199975
Calcium	NELAP	0.100		**248**	mg/L	1	11/14/2022 18:01	199975
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/14/2022 18:01	199975
Cobalt	NELAP	0.0050		**0.0111**	mg/L	1	11/14/2022 18:01	199975
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/14/2022 18:01	199975
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	11/14/2022 18:01	199975
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/14/2022 18:01	199975
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2022 11:30	199975
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2022 11:30	199975
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/15/2022 11:30	199975
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/11/2022 21:41	199972
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/06/2022 0:00	R322549
Radium-228	*	0		**See Attached**	pci/L	1	12/06/2022 0:00	R322549

Client: City Water, Light & Power
Work Order: 22110359
Client Project: Ash Pond Monitoring Wells
Report Date: 19-Dec-22
Lab ID: 22110359-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 11/08/2022 10:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	11/08/2022 10:40	R321096
Depth to water	*	-5.00		**8.06**	ft	1	11/08/2022 10:40	R321096
Depth to water from measuring point	*	0		**9.76**	ft	1	11/08/2022 10:40	R321096
Elevation of groundwater surface	*	0		**525.64**	ft	1	11/08/2022 10:40	R321096
Measuring Point Elevation	*	0		**535.40**	ft	1	11/08/2022 10:40	R321096
Measuring Point Height Above Land Surface	*	0		**1.70**	ft	1	11/08/2022 10:40	R321096
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	11/08/2022 10:40	R321096
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.8**	°F	1	11/08/2022 10:40	R321096
SW-846 9040B								
pH, Field	*	1.00		**6.65**		1	11/08/2022 10:40	R321096
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1680**	µmhos/cm @25C	1	11/08/2022 10:40	R321096
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**920**	mg/L	2.5	11/15/2022 7:06	R321202
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**444**	mg/L	20	11/23/2022 11:31	R321591
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.21**	mg/L	1	11/14/2022 15:00	R321052
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**55**	mg/L	5	11/23/2022 11:26	R321589
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	11/14/2022 19:15	199975
Barium	NELAP	0.0025		**0.0951**	mg/L	1	11/14/2022 19:15	199975
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/14/2022 19:15	199975
Boron	NELAP	0.200		**14.6**	mg/L	10	11/17/2022 15:45	199975
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/14/2022 19:15	199975
Calcium	NELAP	0.100		**160**	mg/L	1	11/14/2022 19:15	199975
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/14/2022 19:15	199975
Cobalt	NELAP	0.0050		**0.0054**	mg/L	1	11/14/2022 19:15	199975
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/14/2022 19:15	199975
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	11/14/2022 19:15	199975
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/14/2022 19:15	199975
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2022 11:37	199975
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2022 11:37	199975
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/15/2022 11:37	199975
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/11/2022 21:43	199972
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/06/2022 0:00	R322549
Radium-228	*	0		**See Attached**	pci/L	1	12/06/2022 0:00	R322549

Client: City Water, Light & Power **Work Order:** 22110359

Client Project: Ash Pond Monitoring Wells **Report Date:** 19-Dec-22

Lab ID: 22110359-008 **Client Sample ID:** AP-7

Matrix: GROUNDWATER **Collection Date:** 11/09/2022 9:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	11/09/2022 9:04	R321096
Depth to water	*	-5.00		**8.86**	ft	1	11/09/2022 9:04	R321096
Depth to water from measuring point	*	0		**11.52**	ft	1	11/09/2022 9:04	R321096
Elevation of groundwater surface	*	0		**527.50**	ft	1	11/09/2022 9:04	R321096
Measuring Point Elevation	*	0		**539.02**	ft	1	11/09/2022 9:04	R321096
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	11/09/2022 9:04	R321096
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	11/09/2022 9:04	R321096
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.6**	°F	1	11/09/2022 9:04	R321096
SW-846 9040B								
pH, Field	*	1.00		**7.17**		1	11/09/2022 9:04	R321096
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**959**	µmhos/cm @25C	1	11/09/2022 9:04	R321096
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**348**	mg/L	1	11/15/2022 7:07	R321202
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**13**	mg/L	1	11/23/2022 12:30	R321591
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.39**	mg/L	1	11/14/2022 15:09	R321052
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**58**	mg/L	5	11/23/2022 12:36	R321589
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	11/14/2022 19:30	199975
Barium	NELAP	0.0025		**0.130**	mg/L	1	11/14/2022 19:30	199975
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/14/2022 19:30	199975
Boron	NELAP	0.0200		**0.260**	mg/L	1	11/17/2022 9:35	199975
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/14/2022 19:30	199975
Calcium	NELAP	0.100	S	**44.8**	mg/L	1	11/14/2022 19:30	199975
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/14/2022 19:30	199975
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/14/2022 19:30	199975
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/14/2022 19:30	199975
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	11/14/2022 19:30	199975
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/14/2022 19:30	199975
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/19/2022 2:52	199975
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/21/2022 14:36	199975
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/19/2022 2:52	199975
CCV recovered outside the upper control limits Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/11/2022 21:52	199972
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/25/2022 0:00	R322549

Client: City Water, Light & Power
Work Order: 22110359
Client Project: Ash Pond Monitoring Wells
Report Date: 19-Dec-22
Lab ID: 22110359-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 11/09/2022 9:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		**See Attached**	pci/L	1	11/25/2022 0:00	R322549

Client: City Water, Light & Power
Work Order: 22110359
Client Project: Ash Pond Monitoring Wells
Report Date: 19-Dec-22
Lab ID: 22110359-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 11/08/2022 11:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	11/08/2022 11:30	R321096
Depth to water	*	-5.00		**3.75**	ft	1	11/08/2022 11:30	R321096
Depth to water from measuring point	*	0		**6.65**	ft	1	11/08/2022 11:30	R321096
Elevation of groundwater surface	*	0		**530.55**	ft	1	11/08/2022 11:30	R321096
Measuring Point Elevation	*	0		**537.20**	ft	1	11/08/2022 11:30	R321096
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	11/08/2022 11:30	R321096
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.7**	NTU	1	11/08/2022 11:30	R321096
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.3**	°F	1	11/08/2022 11:30	R321096
SW-846 9040B								
pH, Field	*	1.00		**6.99**		1	11/08/2022 11:30	R321096
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1290**	µmhos/cm @25C	1	11/08/2022 11:30	R321096
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**505**	mg/L	2.5	11/15/2022 7:08	R321202
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	11/23/2022 12:38	R321591
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.27**	mg/L	1	11/14/2022 15:10	R321052
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**26**	mg/L	1	11/23/2022 12:38	R321589
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.0340**	mg/L	1	11/14/2022 19:41	199975
Barium	NELAP	0.0025		**0.371**	mg/L	1	11/14/2022 19:41	199975
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/14/2022 19:41	199975
Boron	NELAP	0.0200		**0.0927**	mg/L	1	11/16/2022 21:20	199975
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/14/2022 19:41	199975
Calcium	NELAP	0.100		**100**	mg/L	1	11/14/2022 19:41	199975
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/14/2022 19:41	199975
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/14/2022 19:41	199975
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/14/2022 19:41	199975
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	11/14/2022 19:41	199975
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/14/2022 19:41	199975
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/13/2022 4:26	199975
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/13/2022 4:26	199975
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/13/2022 4:26	199975
CCV recovered outside the upper control limits for Se and TL. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/11/2022 21:55	199972
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/25/2022 0:00	R322549
Radium-228	*	0		**See Attached**	pci/L	1	11/25/2022 0:00	R322549

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22110359
Report Date: 19-Dec-22

Carrier: Joseph Riley

Completed by: Timothy W. Mathis
On: 10-Nov-22

Received By: ERH

Reviewed by: Shelly A. Hennessy
On: 11-Nov-22

Pages to follow: Chain of custody 2 Extra pages included 30

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 4.8
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #83856 PRY. - TMathis - 11/10/2022 4:08:42 PM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 22110359

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 4.8 °C UTG1

Preserved in: ☐ LAB ☑ FIELD

FOR LAB USE ONLY

LAB NOTES: PM/ 83856. PAT 11/10/22

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☑ No Permit on file

Client Comments:

*elevations, pH, conductivity, temperature

**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo

Quarterly monitoring

PROJECT NAME/NUMBER

Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

J. RILEY C. Collins

RESULTS REQUESTED

☑ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	CL F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
22110359 001	RW-3	11/8/22 1333 ~~1334~~ JR	Groundwater	1	3								✔	✔	✔	✔	✔	✔
002	AP-1	11/8/22 1111	Groundwater	1	3								✔	✔	✔	✔	✔	✔
003	AP-2	11/8/22 1056	Groundwater	1	3								✔	✔	✔	✔	✔	✔
004	AP-3	11/8/22 1040	Groundwater	1	3								✔	✔	✔	✔	✔	✔
005	AP-4	11/8/22 1251	Groundwater	1	3								✔	✔	✔	✔	✔	✔
006	AP-5	11/8/22 1220	Groundwater	1	3								✔	✔	✔	✔	✔	✔
007	AP-6	11/8/22 1147	Groundwater	1	3								✔	✔	✔	✔	✔	✔
008	AP-7	11/9/22 904	Groundwater	1	3								✔	✔	✔	✔	✔	✔
009	AP-8	11/8/22 1130	Groundwater	1	3								✔	✔	✔	✔	✔	✔
010	AP-9	11/9/22 926	Groundwater	1	3								✔	✔	✔	✔	✔	✔
011	AP-10	11/8/22 1009	Groundwater	1	3								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	11/10/22 0820	Ellie Hopkins	11/10/22 0820

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

PAT 11/10/22

Print PDF

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 22110359

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
012	AP-11	11/9/22 1012	Groundwater	1	3								✔	✔	✔	✔	✔	✔
013	AP-12	1029	Groundwater	1	3								✔	✔	✔	✔	✔	✔
014	AP-13	1043	Groundwater	1	3								✔	✔	✔	✔	✔	✔
015	AP-14	11/8/22 1316	Groundwater	1	3								✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	11/10/22 0820		11/10/22 0820

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

ANALYTICAL REPORT

December 14, 2022

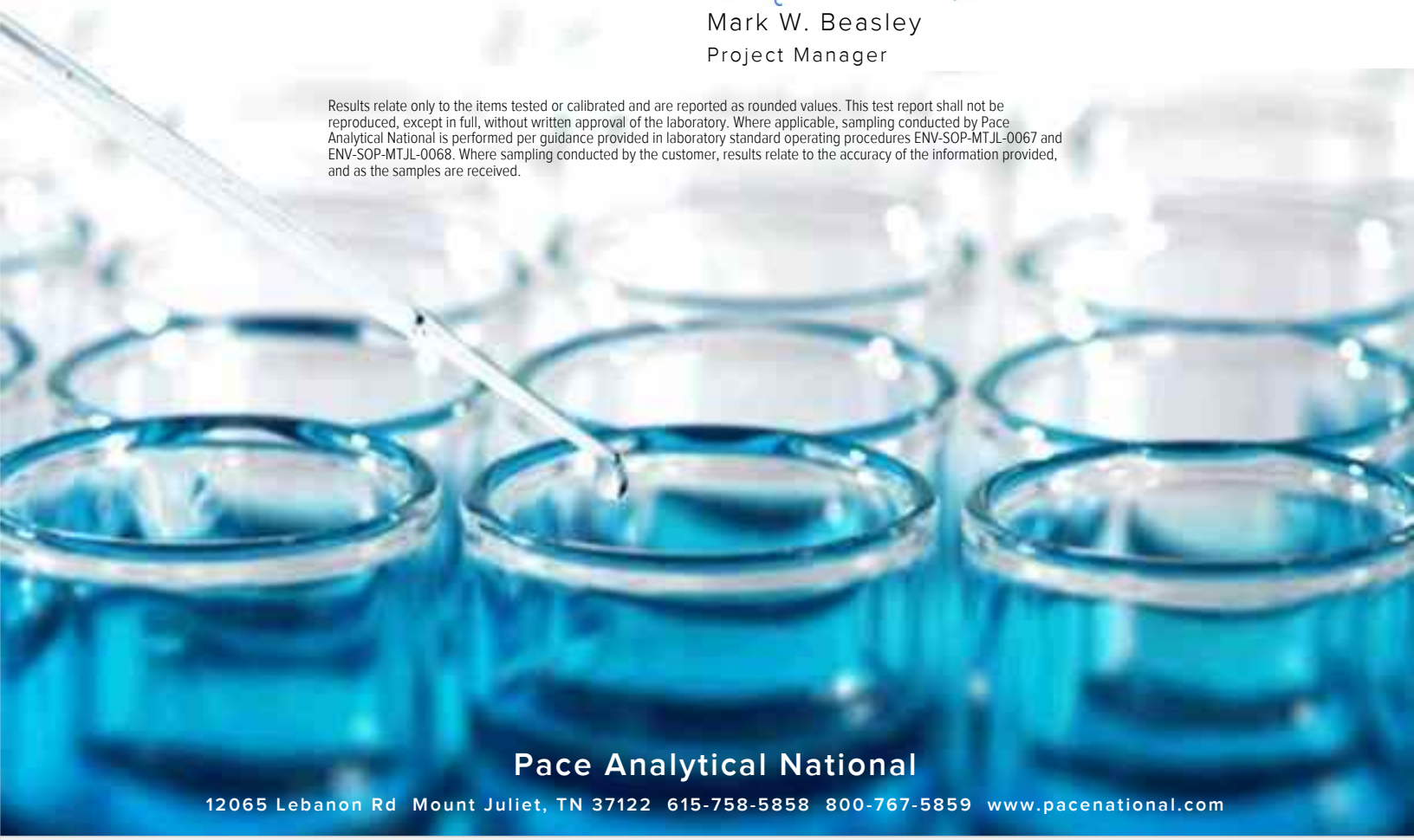
TEKLAB, Inc.

Sample Delivery Group:	L1557781
Samples Received:	11/14/2022
Project Number:	22110359
Description:	
Site:	006
Report To:	Elizabeth Hurley 5445 Horseshoe Lake Road Collinsville, IL 62234

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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22110359-006 L1557781-01 Non-Potable Water

Collected by | Collected date/time 11/08/22 12:20 | Received date/time 11/14/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960584	1	11/18/22 11:52	11/25/22 15:42	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN

22110359-007 L1557781-02 Non-Potable Water

Collected by | Collected date/time 11/08/22 11:47 | Received date/time 11/14/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960584	1	11/18/22 11:52	11/25/22 15:42	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN

22110359-008 L1557781-03 Non-Potable Water

Collected by | Collected date/time 11/08/22 09:04 | Received date/time 11/14/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960584	1	11/18/22 11:52	11/25/22 15:42	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN

22110359-009 L1557781-04 Non-Potable Water

Collected by | Collected date/time 11/08/22 11:30 | Received date/time 11/14/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960584	1	11/18/22 11:52	11/25/22 15:42	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN

22110359-010 L1557781-05 Non-Potable Water

Collected by | Collected date/time 11/08/22 09:26 | Received date/time 11/14/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960584	1	11/18/22 11:52	11/25/22 15:42	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN

22110359-011 L1557781-06 Non-Potable Water

Collected by | Collected date/time 11/08/22 10:09 | Received date/time 11/14/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960584	1	11/18/22 11:52	11/25/22 15:42	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN

22110359-012 L1557781-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	11/09/22 10:12	11/14/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960584	1	11/18/22 11:52	11/25/22 15:42	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN

22110359-013 L1557781-08 Non-Potable Water

Collected by	Collected date/time	Received date/time
	11/09/22 10:29	11/14/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960584	1	11/18/22 11:52	11/25/22 15:42	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 08:37	RGT	Mt. Juliet, TN

22110359-014 L1557781-09 Non-Potable Water

Collected by	Collected date/time	Received date/time
	11/09/22 10:43	11/14/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960584	1	11/18/22 11:52	11/25/22 15:42	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/06/22 10:12	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 10:12	RGT	Mt. Juliet, TN

22110359-015 L1557781-10 Non-Potable Water

Collected by	Collected date/time	Received date/time
	11/08/22 13:16	11/14/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960584	1	11/18/22 11:52	11/25/22 15:42	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/06/22 10:12	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 10:12	RGT	Mt. Juliet, TN

22110359-001 L1557781-11 Non-Potable Water

Collected by	Collected date/time	Received date/time
	11/08/22 13:33	11/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1961949	1	11/22/22 10:36	12/08/22 10:43	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/08/22 10:43	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 10:12	RGT	Mt. Juliet, TN

22110359-002 L1557781-12 Non-Potable Water

Collected by	Collected date/time	Received date/time
	11/08/22 11:11	11/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1961949	1	11/22/22 10:36	12/08/22 10:43	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/08/22 10:43	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 10:12	RGT	Mt. Juliet, TN

22110359-003 L1557781-13 Non-Potable Water

Collected by	Collected date/time	Received date/time
	11/08/22 10:56	11/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1961949	1	11/22/22 10:36	12/08/22 10:43	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/08/22 10:43	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 10:12	RGT	Mt. Juliet, TN

22110359-004 L1557781-14 Non-Potable Water

Collected by	Collected date/time	Received date/time
	11/08/22 10:40	11/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1961949	1	11/22/22 10:36	12/08/22 10:43	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/08/22 10:43	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 10:12	RGT	Mt. Juliet, TN

22110359-005 L1557781-15 Non-Potable Water

Collected by	Collected date/time	Received date/time
	11/08/22 12:51	11/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1961949	1	11/22/22 10:36	12/08/22 10:43	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1966869	1	12/02/22 10:53	12/08/22 10:43	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1966869	1	12/02/22 10:53	12/06/22 10:12	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Mark W. Beasley
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.199	U	0.419	0.768	11/25/2022 15:42	WG1960584
(T) Barium	*89.1*			*30.0-143*	*11/25/2022 15:42*	WG1960584
(T) Yttrium	*65.6*			*30.0-136*	*11/25/2022 15:42*	WG1960584

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.382	J	0.513	0.840	12/06/2022 08:37	WG1966869

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.382		0.296	0.341	12/06/2022 08:37	WG1966869
(T) Barium-133	*93.2*			*30.0-143*	*12/06/2022 08:37*	WG1966869

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.385	J	0.483	0.865	11/25/2022 15:42	WG1960584
(T) Barium	*96.1*			*30.0-143*	*11/25/2022 15:42*	WG1960584
(T) Yttrium	*54.3*			*30.0-136*	*11/25/2022 15:42*	WG1960584

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.95		0.693	0.895	12/06/2022 08:37	WG1966869

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.57		0.497	0.230	12/06/2022 08:37	WG1966869
(T) Barium-133	*92.0*			*30.0-143*	*12/06/2022 08:37*	WG1966869

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.161	U	0.300	0.550	12/08/2022 10:43	WG1961949
(T) Barium	*98.8*			*30.0-143*	*12/08/2022 10:43*	WG1961949
(T) Yttrium	*114*			*30.0-136*	*12/08/2022 10:43*	WG1961949

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.432	J	0.351	0.568	12/08/2022 10:43	WG1966869

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.271		0.183	0.142	12/06/2022 10:12	WG1966869
(T) Barium-133	*96.6*			*30.0-143*	*12/06/2022 10:12*	WG1966869

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.332	J	0.223	0.403	12/08/2022 10:43	WG1961949
(T) Barium	*93.6*			*30.0-143*	*12/08/2022 10:43*	WG1961949
(T) Yttrium	*112*			*30.0-136*	*12/08/2022 10:43*	WG1961949

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.431	J	0.261	0.450	12/08/2022 10:43	WG1966869

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0990	J	0.136	0.200	12/06/2022 10:12	WG1966869
(T) Barium-133	*101*			*30.0-143*	*12/06/2022 10:12*	WG1966869

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.460		0.233	0.417	12/08/2022 10:43	WG1961949
(T) Barium	*92.0*			*30.0-143*	*12/08/2022 10:43*	WG1961949
(T) Yttrium	*132*			*30.0-136*	*12/08/2022 10:43*	WG1961949

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.505		0.269	0.482	12/08/2022 10:43	WG1966869

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0446	U	0.134	0.241	12/06/2022 10:12	WG1966869
(T) Barium-133	*96.1*			*30.0-143*	*12/06/2022 10:12*	WG1966869

Method Blank (MB)

(MB) R3867956-1 11/25/22 15:42

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	-0.345	U	0.257	0.480
(T) Barium	*94.5*		*94.5*	
(T) Yttrium	*60.6*		*60.6*	

L1552433-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1552433-10 11/30/22 15:39 • (DUP) R3867956-5 11/30/22 15:39

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.519	0.414	0.751	-0.850	0.640	0.751	1	200	1.80	U	20	3
(T) Barium	*96.0*			*89.4*	*89.4*							
(T) Yttrium	*64.2*			*57.2*	*57.2*							

Laboratory Control Sample (LCS)

(LCS) R3867956-2 11/25/22 15:42

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.48	110	80.0-120	
(T) Barium			*97.2*		
(T) Yttrium			*70.2*		

L1552433-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1552433-01 11/25/22 15:42 • (MS) R3867956-3 11/25/22 15:42 • (MSD) R3867956-4 11/25/22 15:42

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	1.58	13.2	12.3	117	107	1	70.0-130			7.20		20
(T) Barium		*85.3*			*92.5*	*100*							
(T) Yttrium		*57.3*			*60.5*	*64.7*							

Method Blank (MB)

(MB) R3870220-1 12/08/22 10:43

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	-0.105	U	0.152	0.290
(T) Barium	*98.1*		*98.1*	
(T) Yttrium	*105*		*105*	

L1552442-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1552442-01 12/08/22 10:43 • (DUP) R3870220-5 12/08/22 10:43

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.845	0.219	0.385	0.551	0.285	0.385	1	42.1	0.818		20	3
(T) Barium	*98.7*			*107*	*107*							
(T) Yttrium	*111*			*107*	*107*							

Laboratory Control Sample (LCS)

(LCS) R3870220-2 12/08/22 10:43

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.49	89.8	80.0-120	
(T) Barium			*99.9*		
(T) Yttrium			*103*		

L1552437-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1552437-16 12/08/22 10:43 • (MS) R3870220-3 12/08/22 10:43 • (MSD) R3870220-4 12/08/22 10:43

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	-0.124	9.64	9.63	96.4	96.3	1	70.0-130			0.0415		20
(T) Barium		*95.0*			*92.4*	*105*							
(T) Yttrium		*106*			*112*	*104*							

Method Blank (MB)

(MB) R3871343-1 12/05/22 21:01

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	-0.0469	U	0.0294	0.0704
(T) Barium-133	*91.4*		*91.4*	

L1557781-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1557781-15 12/06/22 10:12 • (DUP) R3871343-5 12/06/22 08:37

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-226	0.495	0.267	0.231	0.387	0.288	0.231	1	24.6	0.277		20	3
(T) Barium-133	*101*			*98.8*	*98.8*							

Laboratory Control Sample (LCS)

(LCS) R3871343-2 12/06/22 08:37

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.02	5.39	107	80.0-120	
(T) Barium-133			*96.5*		

L1557781-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1557781-01 12/06/22 08:37 • (MS) R3871343-3 12/06/22 08:37 • (MSD) R3871343-4 12/06/22 08:37

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	20.0	0.0344	20.6	20.3	103	101	1	75.0-125			1.42		20
(T) Barium-133		*87.6*			*92.2*	*95.8*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

A010

Pg ___ of ___

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO O With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Client | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 22/228.
ICollected at an IL site.
Batch QC is required for all analyses requested. EDD requested.

Project# 22110359

Contact: Shelly Hennessey | Email: shennessy@teklabinc.com
Requested Due Date: 10-15 day TAT | Billing/PO: 3365 | Phone: 618-344-1004

L557781

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	RAD 226/228											
-01	22110359-001	11/8/22 1333	HN03	Groundwater	✔											
-02	22110359-002	11/8/22 1111	HN03	Groundwater	✔											
	22110359-003	11/8/22 1056	HN03	Groundwater	✔											
	22110359-004	11/8/22 1040	HN03	Groundwater	✔											
	22110359-005	11/8/22 1251	HN03	Groundwater	✔											
-01	22110359-006	11/8/22 1220	HN03	Groundwater	✔											
-02	22110359-007	11/8/22 1147	HN03	Groundwater	✔											
-03	22110359-008	11/8/22 0904	HN03	Groundwater	✔											
-04	22110359-009	11/8/22 1130	HN03	Groundwater	✔											
-05	22110359-010	11/8/22 0926	HN03	Groundwater	✔											
-06	22110359-011	11/8/22 1009	HN03	Groundwater	✔											

*Relinquished By	Date/Time	Received By	Date/Time
	11/11/22 1100		Within 1030

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights. Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO O With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Client | QC Level: 2

Project# 22110359

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 22/228.
ICollected at an IL site.
Batch QC is required for all analyses requested. EDD requested.

Contact: Shelly Hennessey | Email: shennessy@teklabinc.com
Requested Due Date: 10-15 day TAT | Billing/PO: 33615 | Phone: 618-344-1004

U557781

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	RAD 226/228
-07	22110359-012	11/9/22 1012	HN03	Groundwater	✔
-08	22110359-013	11/9/22 1029	HN03	Groundwater	✔
-09	22110359-014	11/9/22 1043	HN03	Groundwater	✔
-10	22110359-015	11/8/22 1316	HN03	Groundwater	✔
			HN03	Groundwater	✔
			HN03	Groundwater	✔
			03	Groundwater	✔
			03	Groundwater	✔
			03	Groundwater	✔
			03	Groundwater	✔
			03	Groundwater	✔

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

Amb

*Relinquished By	Date/Time	Received By	Date/Time
	11/11/22 1700		11/14/22 1030

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LI557761

Tracking Numbers	Temperature
FEDEx GROUND	Amb
↓	Amb

11/15-NCF-L1557781 TEKLABIL

R5

Time estimate: oh **Time spent:** oh

Members

HM Hailey Melson (responsible) MB Mark Beasley

Due on *18 November 2022 8:00 AM* for target *Done*

- [x] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [ ] Sample IDs on containers do not match IDs on COC
- [ ] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

Comments

Hailey Melson *15 November 2022 12:50 PM*

Missing IDs: 22110359-001, -002, -003, -004, -005

Hailey Melson *16 November 2022 1:34 PM*

Samples received today 11/16 and added.

November 28, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Landfill Monitoring Wells **WorkOrder:** 22110358

Dear Eric Staley:

TEKLAB, INC received 12 samples on 11/10/2022 8:20:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Elizabeth A. Hurley

Elizabeth A. Hurley
Director of Customer Service
(618)344-1004 ex 33
ehurley@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 22110358
Report Date: 28-Nov-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	19
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 22110358

Client Project: Landfill Monitoring Wells **Report Date:** 28-Nov-22

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 22110358

Client Project: Landfill Monitoring Wells
Report Date: 28-Nov-22

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 22110358
Report Date: 28-Nov-22

Cooler Receipt Temp: 4.8 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 22110358
Client Project: Landfill Monitoring Wells
Report Date: 28-Nov-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power
Work Order: 22110358
Client Project: Landfill Monitoring Wells
Report Date: 28-Nov-22
Lab ID: 22110358-009
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 11/09/2022 12:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	11/09/2022 12:26	R321383
Depth to water	*	-5.00		**12.15**	ft	1	11/09/2022 12:26	R321383
Depth to water from measuring point	*	0		**14.90**	ft	1	11/09/2022 12:26	R321383
Elevation of groundwater surface	*	0		**540.70**	ft	1	11/09/2022 12:26	R321383
Measuring Point Elevation	*	0		**555.60**	ft	1	11/09/2022 12:26	R321383
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.5**	°F	1	11/09/2022 12:26	R321383
SW-846 9040B								
pH, Field	*	1.00		**6.83**		1	11/09/2022 12:26	R321383
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1740**	µmhos/cm @25C	1	11/09/2022 12:26	R321383
EPA 600 350.1 (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**< 0.10**	mg/L	1	11/14/2022 10:32	R321026
EPA 600 353.2 R2.0 (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.250		**1.29**	mg/L	5	11/10/2022 18:40	R320983
STANDARD METHODS 2540 C (DISSOLVED) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1100**	mg/L	2.5	11/16/2022 7:38	R321282
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	11/17/2022 14:01	200165
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	100		**344**	mg/L	10	11/21/2022 23:00	R321457
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	8		**40**	mg/L	2	11/21/2022 22:55	R321468
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**7160**	µg/L	1	11/15/2022 19:27	199980
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/15/2022 19:27	199980
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	11/15/2022 19:27	199980
Magnesium	NELAP	0.050		**75.6**	mg/L	1	11/15/2022 19:27	199980
Zinc	NELAP	10.0		**11.9**	µg/L	1	11/15/2022 19:27	199980
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**20.8**	µg/L	5	11/15/2022 9:35	199980
Lead	NELAP	1.0		**1.6**	µg/L	5	11/15/2022 9:35	199980
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/11/2022 20:46	199966

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 22110358
Report Date: 28-Nov-22

Carrier: Joseph Riley
Received By: ERH

Completed by: Timothy W. Mathis
On: 10-Nov-22

Reviewed by: Elizabeth A. Hurley
On: 10-Nov-22

Pages to follow: Chain of custody 2 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 4.8
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

R101, G110, R111, G112, G113, G120, and G121 were filtered and preserved for the dissolved parameters upon arrival at the laboratory. - TMathis - 11/10/2022 4:11:48 PM

pH strip #83856/83857. - TMathis - 11/10/2022 4:12:54 PM

Additional nitric acid (83726) was needed in G122 and AW-1; additional sodium hydroxide (81662) was needed in all cynide containers upon arrival at the laboratory. - TMathis - 11/10/2022 4:13:15 PM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 22110358

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 4.8 °C LTG#
Preserved in: ☑ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: ADDED TO ALL CYANIDE CONT. ADDED HNO3 TO G122 AND AW-2

Client Comments: *DUP X FILTER IN LAB
Quarters 1, 3, & 4
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER: Landfill Monitoring Wells
SAMPLE COLLECTOR'S NAME: D. RILEY C. Collins

RESULTS REQUESTED: ☑ Standard ☐ 1-2 Day (100% Surcharge) ☐ Other ☐ 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID		Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)
22110358-001	R101	X	11/9/22 1337	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
002	G110	X	1401	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
003	R111	X	1255	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
004	G112	X	1310	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
005	G113	X	1324	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
006	G120	X	1210	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
007	G121	X	1133	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
008	G122		1121	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
009	AW-1		1226	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
010	AW-2	*	1154	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
011	RW-3		11/8/22 1334	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	11/10/22 0820	Allen Hoskins	11/10/22 0820

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Print PDF

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 22110358

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

Client Comments:

Quarters 1, 3, & 4

*elevations, pH, conductivity, temperature

**As B Cd Cr Pb Mg Hg Zn

PROJECT NAME/NUMBER

Landfill Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED

☑ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TOS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)
22110358-012	DUPLICATE *	11/9/22 1154	Groundwater	1	1	1	1							✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	11/10/22 0820	[illegible]	11/10/22 0820

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

First Quarter 2023

March 13, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 23020985

Dear Eric Staley:

TEKLAB, INC received 7 samples on 2/17/2023 8:50:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23020985
Report Date: 13-Mar-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	14
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23020985

Client Project: Ash Pond Monitoring Wells **Report Date:** 13-Mar-23

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 23020985

Client Project: Ash Pond Monitoring Wells
Report Date: 13-Mar-23

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23020985
Report Date: 13-Mar-23

Cooler Receipt Temp: 1.2 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 23020985
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Mar-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power
Work Order: 23020985
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Mar-23
Lab ID: 23020985-001
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 02/16/2023 14:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	02/16/2023 14:54	R325158
Depth to water	*	-5.00		**10.82**	ft	1	02/16/2023 14:54	R325158
Depth to water from measuring point	*	0		**13.48**	ft	1	02/16/2023 14:54	R325158
Elevation of groundwater surface	*	0		**525.54**	ft	1	02/16/2023 14:54	R325158
Measuring Point Elevation	*	0		**539.02**	ft	1	02/16/2023 14:54	R325158
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	02/16/2023 14:54	R325158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**22**	NTU	1	02/16/2023 14:54	R325158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**51.4**	°F	1	02/16/2023 14:54	R325158
SW-846 9040B								
pH, Field	*	1.00		**7.20**		1	02/16/2023 14:54	R325158
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**626**	µmhos/cm @25C	1	02/16/2023 14:54	R325158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**328**	mg/L	1	02/20/2023 9:58	R325069
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**16**	mg/L	1	02/27/2023 16:13	R325321
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.36**	mg/L	1	02/24/2023 9:35	R325243
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**45**	mg/L	2	02/27/2023 16:40	R325333
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	02/21/2023 23:57	203052
Barium	NELAP	0.0025		**0.111**	mg/L	1	02/21/2023 23:57	203052
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/21/2023 23:57	203052
Boron	NELAP	0.0200		**0.180**	mg/L	1	02/22/2023 17:56	203052
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/21/2023 23:57	203052
Calcium	NELAP	0.100		**49.3**	mg/L	1	02/21/2023 23:57	203052
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/21/2023 23:57	203052
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/21/2023 23:57	203052
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/21/2023 23:57	203052
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/21/2023 23:57	203052
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/21/2023 23:57	203052
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2023 20:58	203052
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2023 20:58	203052
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2023 20:58	203052
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/18/2023 9:22	203036
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	03/08/2023 0:00	R325892
Radium-228	*	0		**See attached**	pci/L	1	03/08/2023 0:00	R325892

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23020985
Report Date: 13-Mar-23

Carrier: Joe Riley

Completed by: Timothy W. Mathis
On: 17-Feb-23

Received By: ANC

Reviewed by: Elizabeth A. Hurley
On: 17-Feb-23

Pages to follow: Chain of custody 2 Extra pages included 19

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 1.2
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #87147. - CET/ehurley - 2/17/2023 11:18:53 AM

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # ~~23021159~~ 23020985

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 1.2 °C CT
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: PW871147-CoC 2-17-23.

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [X] No
Are these samples known to be hazardous? [ ] Yes [X] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [X] Yes [X] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
J. RILEY

RESULTS REQUESTED
[X] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	CI F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
	~~BW-3~~		Groundwater	1	3								✓	✓	✓	✓	✓	✓
	~~AP-1~~		Groundwater	1	3								✓	✓	✓	✓	✓	✓
	~~AP-2~~		Groundwater	1	3								✓	✓	✓	✓	✓	✓
	~~AP-3~~		Groundwater	1	3								✓	✓	✓	✓	✓	✓
	~~AP-4~~		Groundwater	1	3								✓	✓	✓	✓	✓	✓
	~~AP-5~~		Groundwater	1	3								✓	✓	✓	✓	✓	✓
	~~AP-6~~		Groundwater	1	3								✓	✓	✓	✓	✓	✓
23020985 01	AP-7	02/16/23 1454	Groundwater	1	3								✓	✓	✓	✓	✓	✓
	~~AP-8~~		Groundwater	1	3								✓	✓	✓	✓	✓	✓
002	AP-9	02/16/23 1517	Groundwater	1	3								✓	✓	✓	✓	✓	✓
003	AP-10	02/16/23 1134	Groundwater	1	3								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	02/17/23 0850	Allison Colin	2/17/23 850

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CoC 2-17-23

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # _____

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:

*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
J. KELLEY

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23020885 004	AP-11	02/16/23 1254	Groundwater	1	3								✔	✔	✔	✔	✔	✔
005	AP-12	02/16/23 1310	Groundwater	1	3								✔	✔	✔	✔	✔	✔
006	AP-13	02/16/23 1328	Groundwater	1	3								✔	✔	✔	✔	✔	✔
007	AP-14	02/16/23 1213	Groundwater	1	3								✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	02/17/23 0850	Allison Colin	2/17/23 850

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

March 10, 2023

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 23020985

Order No.: 23021632

Dear Shelly Hennessy:

Summit Environmental Technologies, Inc. received 7 sample(s) on 2/22/2023 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **23021632**
Date: **3/10/2023**

CLIENT: TEKLAB Inc,
Project: 23020985

WorkOrder Narrative:
23021632: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence Sample Notes:
23021632-001A thru -007A Radium-228_NPW(904.0): Samples contained sediment

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **23021632**
Date: **3/10/2023**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Summit Environmental Technologies, Inc.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **23021632**
10-Mar-23

CLIENT: TEKLAB Inc,
Project: 23020985

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
23021632-001	23020985-001		2/16/2023 2:54:00 PM	2/22/2023 11:10:00 AM	Non-Potable Water
23021632-002	23020985-002		2/16/2023 3:11:00 PM	2/22/2023 11:10:00 AM	Non-Potable Water
23021632-003	23020985-003		2/16/2023 11:34:00 AM	2/22/2023 11:10:00 AM	Non-Potable Water
23021632-004	23020985-004		2/16/2023 12:54:00 PM	2/22/2023 11:10:00 AM	Non-Potable Water
23021632-005	23020985-005		2/16/2023 1:10:00 PM	2/22/2023 11:10:00 AM	Non-Potable Water
23021632-006	23020985-006		2/16/2023 1:25:00 PM	2/22/2023 11:10:00 AM	Non-Potable Water
23021632-007	23020985-007		2/16/2023 12:13:00 PM	2/22/2023 11:10:00 AM	Non-Potable Water

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DATES REPORT

WO#: **23021632**

10-Mar-23

Client: TEKLAB Inc,

Project: 23020985

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23021632-001A	23020985-001	2/16/2023 2:54:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		2/27/2023 11:11:00 AM	3/9/2023 2:05:00 PM
				Radium-228 (EPA 904.0)		2/27/2023 11:11:00 AM	3/8/2023 2:24:00 PM
23021632-002A	23020985-002	2/16/2023 3:11:00 PM		Radium-226 (EPA 903.0)		2/27/2023 11:11:00 AM	3/9/2023 2:05:00 PM
				Radium-228 (EPA 904.0)		2/27/2023 11:11:00 AM	3/8/2023 2:24:00 PM
23021632-003A	23020985-003	2/16/2023 11:34:00 AM		Radium-226 (EPA 903.0)		2/27/2023 11:11:00 AM	3/9/2023 2:05:00 PM
				Radium-228 (EPA 904.0)		2/27/2023 11:11:00 AM	3/8/2023 2:24:00 PM
23021632-004A	23020985-004	2/16/2023 12:54:00 PM		Radium-226 (EPA 903.0)		2/27/2023 11:11:00 AM	3/9/2023 2:05:00 PM
				Radium-228 (EPA 904.0)		2/27/2023 11:11:00 AM	3/8/2023 2:24:00 PM
23021632-005A	23020985-005	2/16/2023 1:10:00 PM		Radium-226 (EPA 903.0)		2/27/2023 11:11:00 AM	3/9/2023 2:05:00 PM
				Radium-228 (EPA 904.0)		2/27/2023 11:11:00 AM	3/8/2023 2:24:00 PM
23021632-006A	23020985-006	2/16/2023 1:25:00 PM		Radium-226 (EPA 903.0)		2/27/2023 11:11:00 AM	3/9/2023 2:05:00 PM
				Radium-228 (EPA 904.0)		2/27/2023 11:11:00 AM	3/8/2023 2:24:00 PM
23021632-007A	23020985-007	2/16/2023 12:13:00 PM		Radium-226 (EPA 903.0)		2/27/2023 11:11:00 AM	3/9/2023 2:05:00 PM
				Radium-228 (EPA 904.0)		2/27/2023 11:11:00 AM	3/8/2023 2:24:00 PM

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **23021632**

Date Reported: **3/10/2023**

CLIENT: TEKLAB Inc,
Project: 23020985
Lab ID: 23021632-001
Client Sample ID: 23020985-001

Collection Date: 2/16/2023 2:54:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.12	1	3/9/2023 2:05:00 PM
Yield	1.00					1	3/9/2023 2:05:00 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.45	1	3/8/2023 2:24:00 PM
Yield	1.00					1	3/8/2023 2:24:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

Summit Environmental Technologies, Inc.
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Cuyahoga Falls, Ohio 44223
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QC SUMMARY REPORT

WO#: **23021632**

10-Mar-23

Client: TEKLAB Inc,
Project: 23020985 **BatchID:** **63147**

Sample ID: **MB-63147**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/27/2023**	RunNo: **159591**
Client ID: **PBW**	Batch ID: **63147**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/8/2023**	SeqNo: **4241639**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCSD-63147**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/27/2023**	RunNo: **159591**
Client ID: **LCSS02**	Batch ID: **63147**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/8/2023**	SeqNo: **4241641**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.62	1.00	5.000	0	72.4	70	130	2.390	40.9	20	R
Yield	0.950			0	0			0.9900	4.12		

Sample ID: **RLC-63147**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/27/2023**	RunNo: **159591**
Client ID: **BatchQC**	Batch ID: **63147**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/8/2023**	SeqNo: **4241643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	81.0	50	150				
Yield	0.970			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23021632**
10-Mar-23

Client: TEKLAB Inc,
Project: 23020985 **BatchID:** **63147**

Sample ID: **RLCD-63147** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/27/2023** RunNo: **159591**
Client ID: **BatchQC** Batch ID: **63147** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2023** SeqNo: **4241644**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.15	1.00	1.000	0	115	50	150				
Yield	1.00			0	0						

Sample ID: **23021630-001AMS** SampType: **MS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/27/2023** RunNo: **159591**
Client ID: **BatchQC** Batch ID: **63147** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2023** SeqNo: **4241645**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.99	1.00	5.000	0	79.8	70	130				
Yield	0.850			0.9400	0						

Sample ID: **23021631-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/27/2023** RunNo: **159591**
Client ID: **BatchQC** Batch ID: **63147** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2023** SeqNo: **4241650**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23021632**

10-Mar-23

Client: TEKLAB Inc,
Project: 23020985 **BatchID:** **63147**

Sample ID: **23021637-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/27/2023** RunNo: **159591**
Client ID: **BatchQC** Batch ID: **63147** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2023** SeqNo: **4241652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23021632**

10-Mar-23

Client: TEKLAB Inc,
Project: 23020985 **BatchID:** **63147**

Sample ID: **MB-63147**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/27/2023**	RunNo: **159596**
Client ID: **PBW**	Batch ID: **63147**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/9/2023**	SeqNo: **4241980**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-63147**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/27/2023**	RunNo: **159596**
Client ID: **LCSW**	Batch ID: **63147**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/9/2023**	SeqNo: **4241981**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.76	1.00	5.000	0	115	70	130				

Sample ID: **LCSD-63147**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/27/2023**	RunNo: **159596**
Client ID: **LCSS02**	Batch ID: **63147**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/9/2023**	SeqNo: **4241982**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.46	1.00	5.000	0	109	70	130	5.760	5.35	20	

Sample ID: **RLC-63147**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/27/2023**	RunNo: **159596**
Client ID: **BatchQC**	Batch ID: **63147**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/9/2023**	SeqNo: **4241984**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23021632**
10-Mar-23

Client: TEKLAB Inc,
Project: 23020985 **BatchID:** **63147**

Sample ID: **RLC-63147**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/27/2023**	RunNo: **159596**
Client ID: **BatchQC**	Batch ID: **63147**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/9/2023**	SeqNo: **4241984**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	85.0	50	150				

Sample ID: **RLCD-63147**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/27/2023**	RunNo: **159596**
Client ID: **BatchQC**	Batch ID: **63147**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/9/2023**	SeqNo: **4241985**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.24	1.00	1.000	0	124	50	150				

Sample ID: **23021637-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/27/2023**	RunNo: **159596**
Client ID: **BatchQC**	Batch ID: **63147**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/9/2023**	SeqNo: **4241987**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							0.9600	4.08	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

TEKLAB, INC. Chain of Custody

23021632

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Cooler Temp: ____ Sampler: CLIENT QC Level: 2

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium (226 and 228) by method EPA903.0/904.0
on your standard turnaround time.
Batch QC is required with the report. Receipt summary requested.

Project# 23020985

Contact: Shelly Hennessey Email: shennessey@teklabinc.com State of Origin: IL
Requested Due Date: 20 business days or less Billing/PO: 34003 Phone: (618) 344-1004 ext.

PLEASE NOTE:
NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	cpm	
	23020985-001	2/16/23 1454	HNO3	Aqueous	☑	☑	40	1
	23020985-002	2/16/23 1511	HNO3	Aqueous	☑	☑	20	1
	23020985-003	2/16/23 1134	HNO3	Aqueous	☑	☑	23	1
	23020985-004	2/16/23 1254	HNO3	Aqueous	☑	☑	21	1
	23020985-005	2/16/23 1310	HNO3	Aqueous	☑	☑	11	1
	23020985-006	2/16/23 1325	HNO3	Aqueous	☑	☑	20	1
	23020985-007	2/16/23 1213	HNO3	Aqueous	☑	☑	30	1
			Unpres	Aqueous	☐	☐		
			Unpres	Aqueous	☐	☐		
			Unpres	Aqueous	☐	☐		
			Unpres	Aqueous	☐	☐		

*Relinquished By	Date/Time	Received By	Date/Time
	2-20-23		2/22/23 1110
			17.0+0.3=17.3

Fedex Cooler, no ice

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights.

SubCocRevA

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **23021632** RcptNo: **1**

Logged by:	**Anthony W. Britton**	**2/22/2023 11:10:00 AM**	Anthony Britton
Completed By:	**Anthony W. Britton**	**2/24/2023 9:19:09 AM**	Anthony Britton
Reviewed By:	**Jennifer Woolf**	**2/24/2023 10:27:12 AM**	Jennifer Woolf

Chain of Custody

1.	Were seals intact?	Yes ☑	No ☐	Not Present ☐
2.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3.	How was the sample delivered?	FedEx		

Log In

4.	Coolers are present?	Yes ☐	No ☑	NA ☐
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	17.3	Good	Not Present			

March 07, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 23010325

Dear Eric Staley:

TEKLAB, INC received 15 samples on 1/30/2023 9:20:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23010325
Report Date: 07-Mar-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	16
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23010325

Client Project: Ash Pond Monitoring Wells **Report Date:** 07-Mar-23

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 23010325
Client Project: Ash Pond Monitoring Wells
Report Date: 07-Mar-23

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23010325
Report Date: 07-Mar-23

Cooler Receipt Temp: 0.0 °C

An employee of Teklab, Inc. collected the sample(s).

Wells AP-7, AP-9, AP-10, AP-11, AP-12, AP-13 and AP-14 were frozen and could not be collected. JR/JC 1/30/23

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 23010325
Client Project: Ash Pond Monitoring Wells
Report Date: 07-Mar-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power
Work Order: 23010325
Client Project: Ash Pond Monitoring Wells
Report Date: 07-Mar-23
Lab ID: 23010325-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 01/26/2023 14:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	01/26/2023 14:40	R324367
Depth to water	*	-5.00		**6.60**	ft	1	01/26/2023 14:40	R324367
Depth to water from measuring point	*	0		**9.30**	ft	1	01/26/2023 14:40	R324367
Elevation of groundwater surface	*	0		**530.20**	ft	1	01/26/2023 14:40	R324367
Measuring Point Elevation	*	0		**539.50**	ft	1	01/26/2023 14:40	R324367
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	01/26/2023 14:40	R324367
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**170**	NTU	1	01/26/2023 14:40	R324367
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**41.9**	°F	1	01/26/2023 14:40	R324367
SW-846 9040B								
pH, Field	*	1.00		**6.15**		1	01/26/2023 14:40	R324367
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1640**	µmhos/cm @25C	1	01/26/2023 14:40	R324367
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**435**	mg/L	2.5	01/31/2023 8:38	R324271
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	02/06/2023 13:57	R324440
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.46**	mg/L	1	02/07/2023 9:56	R324472
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**29**	mg/L	1	02/06/2023 13:57	R324453
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.169**	mg/L	1	02/02/2023 12:40	202449
Barium	NELAP	0.0025		**0.168**	mg/L	1	02/02/2023 12:40	202449
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/02/2023 12:40	202449
Boron	NELAP	0.0200		**0.175**	mg/L	1	02/02/2023 12:40	202449
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/02/2023 12:40	202449
Calcium	NELAP	0.100		**67.8**	mg/L	1	02/02/2023 12:40	202449
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/02/2023 12:40	202449
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/02/2023 12:40	202449
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/02/2023 12:40	202449
Lithium	NELAP	0.0050		**0.0179**	mg/L	1	02/06/2023 17:28	202449
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/02/2023 12:40	202449
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2023 0:32	202449
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/03/2023 16:36	202449
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/03/2023 16:36	202449
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/01/2023 18:13	202480
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	02/14/2023 0:00	R325259
Radium-228	*	0		**See Attached**	pci/L	1	02/14/2023 0:00	R325259

Client: City Water, Light & Power
Work Order: 23010325
Client Project: Ash Pond Monitoring Wells
Report Date: 07-Mar-23
Lab ID: 23010325-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 01/27/2023 10:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	01/27/2023 10:55	R324367
Depth to water	*	-5.00		**4.40**	ft	1	01/27/2023 10:55	R324367
Depth to water from measuring point	*	0		**6.90**	ft	1	01/27/2023 10:55	R324367
Elevation of groundwater surface	*	0		**529.20**	ft	1	01/27/2023 10:55	R324367
Measuring Point Elevation	*	0		**536.10**	ft	1	01/27/2023 10:55	R324367
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	01/27/2023 10:55	R324367
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.9**	NTU	1	01/27/2023 10:55	R324367
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.6**	°F	1	01/27/2023 10:55	R324367
SW-846 9040B								
pH, Field	*	1.00		**6.46**		1	01/27/2023 10:55	R324367
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2440**	µmhos/cm @25C	1	01/27/2023 10:55	R324367
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1180**	mg/L	2.5	01/31/2023 8:39	R324271
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**485**	mg/L	20	02/06/2023 14:45	R324440
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.24**	mg/L	1	02/07/2023 10:00	R324472
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**36**	mg/L	1	02/06/2023 14:27	R324453
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	02/02/2023 13:13	202449
Barium	NELAP	0.0025		**0.0744**	mg/L	1	02/02/2023 13:13	202449
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/02/2023 13:13	202449
Boron	NELAP	0.0200		**3.94**	mg/L	1	02/02/2023 13:13	202449
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/02/2023 13:13	202449
Calcium	NELAP	0.100		**217**	mg/L	1	02/02/2023 13:13	202449
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/02/2023 13:13	202449
Cobalt	NELAP	0.0050		**0.0091**	mg/L	1	02/02/2023 13:13	202449
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/02/2023 13:13	202449
Lithium	NELAP	0.0050		**0.0476**	mg/L	1	02/06/2023 17:30	202449
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/02/2023 13:13	202449
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2023 1:00	202449
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/03/2023 16:09	202449
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/03/2023 16:09	202449
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/01/2023 18:17	202480
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	02/14/2023 0:00	R325259
Radium-228	*	0		**See Attached**	pci/L	1	02/14/2023 0:00	R325259

Client: City Water, Light & Power
Work Order: 23010325
Client Project: Ash Pond Monitoring Wells
Report Date: 07-Mar-23
Lab ID: 23010325-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 01/27/2023 10:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	01/27/2023 10:35	R324367
Depth to water	*	-5.00		**7.77**	ft	1	01/27/2023 10:35	R324367
Depth to water from measuring point	*	0		**9.47**	ft	1	01/27/2023 10:35	R324367
Elevation of groundwater surface	*	0		**525.93**	ft	1	01/27/2023 10:35	R324367
Measuring Point Elevation	*	0		**535.40**	ft	1	01/27/2023 10:35	R324367
Measuring Point Height Above Land Surface	*	0		**1.70**	ft	1	01/27/2023 10:35	R324367
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	01/27/2023 10:35	R324367
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.9**	°F	1	01/27/2023 10:35	R324367
SW-846 9040B								
pH, Field	*	1.00		**6.58**		1	01/27/2023 10:35	R324367
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2090**	µmhos/cm @25C	1	01/27/2023 10:35	R324367
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1040**	mg/L	2.5	01/31/2023 8:39	R324271
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**461**	mg/L	10	02/06/2023 14:53	R324440
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.22**	mg/L	1	02/07/2023 10:01	R324472
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		**60**	mg/L	5	02/06/2023 14:48	R324453
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	02/02/2023 13:15	202449
Barium	NELAP	0.0025		**0.111**	mg/L	1	02/02/2023 13:15	202449
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/02/2023 13:15	202449
Boron	NELAP	0.0200		**14.5**	mg/L	1	02/02/2023 13:15	202449
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/02/2023 13:15	202449
Calcium	NELAP	0.100		**161**	mg/L	1	02/02/2023 13:15	202449
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/02/2023 13:15	202449
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/02/2023 13:15	202449
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/02/2023 13:15	202449
Lithium	NELAP	0.0050		**0.0501**	mg/L	1	02/06/2023 17:44	202449
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/02/2023 13:15	202449
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2023 1:05	202449
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/03/2023 16:14	202449
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/03/2023 16:14	202449
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/01/2023 18:24	202480
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	02/14/2023 0:00	R325259
Radium-228	*	0		**See Attached**	pci/L	1	02/14/2023 0:00	R325259

Client: City Water, Light & Power
Work Order: 23010325
Client Project: Ash Pond Monitoring Wells
Report Date: 07-Mar-23
Lab ID: 23010325-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 01/27/2023 11:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	01/27/2023 11:45	R324367
Depth to water	*	-5.00		**2.30**	ft	1	01/27/2023 11:45	R324367
Depth to water from measuring point	*	0		**5.20**	ft	1	01/27/2023 11:45	R324367
Elevation of groundwater surface	*	0		**532.00**	ft	1	01/27/2023 11:45	R324367
Measuring Point Elevation	*	0		**537.20**	ft	1	01/27/2023 11:45	R324367
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	01/27/2023 11:45	R324367
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.0**	NTU	1	01/27/2023 11:45	R324367
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.5**	°F	1	01/27/2023 11:45	R324367
SW-846 9040B								
pH, Field	*	1.00		**6.86**		1	01/27/2023 11:45	R324367
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1570**	µmhos/cm @25C	1	01/27/2023 11:45	R324367
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**555**	mg/L	2.5	01/31/2023 8:51	R324271
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	02/06/2023 15:47	R324440
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.30**	mg/L	1	02/07/2023 10:09	R324472
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**26**	mg/L	1	02/06/2023 15:46	R324453
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.0336**	mg/L	1	02/02/2023 13:21	202449
Barium	NELAP	0.0025		**0.360**	mg/L	1	02/02/2023 13:21	202449
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/02/2023 13:21	202449
Boron	NELAP	0.0200		**0.0849**	mg/L	1	02/02/2023 13:21	202449
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/02/2023 13:21	202449
Calcium	NELAP	0.100		**95.1**	mg/L	1	02/02/2023 13:21	202449
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/02/2023 13:21	202449
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/02/2023 13:21	202449
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/02/2023 13:21	202449
Lithium	NELAP	0.0050		**0.0201**	mg/L	1	02/06/2023 17:49	202449
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/02/2023 13:21	202449
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2023 1:27	202449
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2023 1:27	202449
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/07/2023 1:27	202449
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/01/2023 18:38	202480
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	02/14/2023 0:00	R325259
Radium-228	*	0		**See Attached**	pci/L	1	02/14/2023 0:00	R325259

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23010325
Report Date: 07-Mar-23

Carrier: John Riley

Completed by: Lindsey Maddox
On: 30-Jan-23

Received By: ANC

Reviewed by: Shelly A. Hennessy
On: 30-Jan-23

Pages to follow: Chain of custody 2 Extra pages included 23

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 0.0
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #87147 TSM. - lmaddox - 1/30/2023 10:36:29 AM

Additional Nitric Acid (86511) was needed in the 2 liter containers of AP-1, AP-2, AP-3, AP-4(2 of 2) upon arrival at the laboratory. - lmaddox - 1/30/2023 10:36:48 AM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23010325

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 0 °C #5
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: 87147 TM Added HNO_3(8051l) to AP-1 (1 of 2), AP-2, AP-3, AP-4 (1 of 2)

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [✓] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
STALEY/JCOP

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other ____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	CL F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23010325-001	RW-3	~~01/20/23 1140~~ *1430	Groundwater	1	3								✓	✓	✓	✓	✓	✓
002	AP-1	*11:19 3/7/23 01/27/23 *1316	Groundwater	1	3								✓	✓	✓	✓	✓	✓
003	AP-2	01/27/23 1056	Groundwater	1	3								✓	✓	✓	✓	✓	✓
004	AP-3	01/25/23 1035	Groundwater	1	3								✓	✓	✓	✓	✓	✓
005	AP-4	01/26/23 1351	Groundwater	1	3								✓	✓	✓	✓	✓	✓
006	AP-5	01/27/23 2401	Groundwater	1	3								✓	✓	✓	✓	✓	✓
007	AP-6	01/26/23 1205	Groundwater	1	3								✓	✓	✓	✓	✓	✓
008	AP-7	FROZEN	Groundwater	1	3								✓	✓	✓	✓	✓	✓
009	AP-8	01/27/23 1145	Groundwater	1	3								✓	✓	✓	✓	✓	✓
010	AP-9	FROZEN	Groundwater	1	3								✓	✓	✓	✓	✓	✓
011	AP-10	FROZEN	Groundwater	1	3								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	01/31/23 0920	Allison Colin	1/20/23 0920

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Print PDF

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 23010325

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23010325-012	AP-11	FROZEN	Groundwater	1	3								✔	✔	✔	✔	✔	✔
013	AP-12	FROZEN	Groundwater	1	3								✔	✔	✔	✔	✔	✔
014	AP-13	FROZEN	Groundwater	1	3								✔	✔	✔	✔	✔	✔
015	AP-14	FROZEN	Groundwater	1	3								✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater										✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	01/31/23 0720		

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

February 22, 2023

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 23010325

Order No.: 23020178

Dear Shelly Hennessy:

Summit Environmental Technologies, Inc. received 8 sample(s) on 2/2/2023 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **23020178**
Date: **2/22/2023**

CLIENT: TEKLAB Inc,
Project: 23010325

WorkOrder Narrative:
23020178: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence QC Notes:
LCSD-62679 Radium-226_DW(903.0): LCSD-62679 exhibited a high recovery and RPD, the batch is in control by LCS/QCS-62679

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **23020178**
Date: **2/22/2023**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **23020178**
22-Feb-23

CLIENT: TEKLAB Inc,
Project: 23010325

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
23020178-001	23010325-001		1/26/2023 2:20:00 PM	2/2/2023 1:05:00 PM	Non-Potable Water
23020178-002	23010325-002		1/27/2023 1:19:00 PM	2/2/2023 1:05:00 PM	Non-Potable Water
23020178-003	23010325-003		1/27/2023 10:55:00 AM	2/2/2023 1:05:00 PM	Non-Potable Water
23020178-004	23010325-004		1/27/2023 10:35:00 AM	2/2/2023 1:05:00 PM	Non-Potable Water
23020178-005	23010325-005		1/26/2023 1:51:00 PM	2/2/2023 1:05:00 PM	Non-Potable Water
23020178-006	23010325-006		1/27/2023 12:40:00 PM	2/2/2023 1:05:00 PM	Non-Potable Water
23020178-007	23010325-007		1/27/2023 12:05:00 PM	2/2/2023 1:05:00 PM	Non-Potable Water
23020178-008	23010325-009		1/27/2023 11:45:00 AM	2/2/2023 1:05:00 PM	Non-Potable Water

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DATES REPORT

WO#: **23020178**

22-Feb-23

Client: TEKLAB Inc,

Project: 23010325

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23020178-001A	23010325-001	1/26/2023 2:20:00 PM	Non-Potable Water	Combined Radium (EPA903+904)		2/7/2023 10:11:00 AM	2/17/2023 5:17:57 PM
				Radium-226 (EPA 903.0)		2/7/2023 10:11:00 AM	2/15/2023
				Radium-228 (EPA 904.0)		2/7/2023 10:11:00 AM	2/14/2023 1:39:00 PM
23020178-002A	23010325-002	1/27/2023 1:19:00 PM		Combined Radium (EPA903+904)		2/7/2023 10:11:00 AM	2/17/2023 5:17:57 PM
				Radium-226 (EPA 903.0)		2/7/2023 10:11:00 AM	2/15/2023
				Radium-228 (EPA 904.0)		2/7/2023 10:11:00 AM	2/14/2023 1:39:00 PM
23020178-003A	23010325-003	1/27/2023 10:55:00 AM		Combined Radium (EPA903+904)		2/7/2023 10:11:00 AM	2/17/2023 5:17:57 PM
				Radium-226 (EPA 903.0)		2/7/2023 10:11:00 AM	2/15/2023
				Radium-228 (EPA 904.0)		2/7/2023 10:11:00 AM	2/14/2023 1:39:00 PM
23020178-004A	23010325-004	1/27/2023 10:35:00 AM		Combined Radium (EPA903+904)		2/7/2023 10:11:00 AM	2/17/2023 5:17:57 PM
				Radium-226 (EPA 903.0)		2/7/2023 10:11:00 AM	2/15/2023
				Radium-228 (EPA 904.0)		2/7/2023 10:11:00 AM	2/14/2023 1:39:00 PM
23020178-005A	23010325-005	1/26/2023 1:51:00 PM		Combined Radium (EPA903+904)		2/7/2023 10:11:00 AM	2/17/2023 5:17:57 PM
				Radium-226 (EPA 903.0)		2/7/2023 10:11:00 AM	2/15/2023
				Radium-228 (EPA 904.0)		2/7/2023 10:11:00 AM	2/14/2023 1:39:00 PM
23020178-006A	23010325-006	1/27/2023 12:40:00 PM		Combined Radium (EPA903+904)		2/7/2023 10:11:00 AM	2/17/2023 5:17:57 PM
				Radium-226 (EPA 903.0)		2/7/2023 10:11:00 AM	2/15/2023
				Radium-228 (EPA 904.0)		2/7/2023 10:11:00 AM	2/14/2023 1:39:00 PM
23020178-007A	23010325-007	1/27/2023 12:05:00 PM		Combined Radium (EPA903+904)		2/7/2023 10:11:00 AM	2/17/2023 5:17:57 PM
				Radium-226 (EPA 903.0)		2/7/2023 10:11:00 AM	2/15/2023
				Radium-228 (EPA 904.0)		2/7/2023 10:11:00 AM	2/14/2023 1:39:00 PM
23020178-008A	23010325-009	1/27/2023 11:45:00 AM		Combined Radium (EPA903+904)		2/7/2023 10:11:00 AM	2/17/2023 5:17:57 PM
				Radium-226 (EPA 903.0)		2/7/2023 10:11:00 AM	2/15/2023

Original

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DATES REPORT

WO#: **23020178**

22-Feb-23

Client: TEKLAB Inc,

Project: 23010325

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23020178-008A	23010325-009	1/27/2023 11:45:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		2/7/2023 10:11:00 AM	2/14/2023 1:39:00 PM

Original

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Analytical Report

(consolidated)

WO#: **23020178**

Date Reported: **2/22/2023**

CLIENT: TEKLAB Inc,

Collection Date: 1/26/2023 2:20:00 PM

Project: 23010325

Lab ID: 23020178-001

Matrix: NON-POTABLE WATER

Client Sample ID: 23010325-001

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **HDJ**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	0.28	2.00	U	pCi/L	± 0.54	1	2/17/2023 5:17:57 PM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	0.28	1.00	U	pCi/L	± 0.11	1	2/15/2023
Yield	1					1	2/15/2023
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	-0.37	1.00	U	pCi/L	± 0.43	1	2/14/2023 1:39:00 PM
Yield	0.98					1	2/14/2023 1:39:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23020178**

Date Reported: **2/22/2023**

CLIENT: TEKLAB Inc,
Collection Date: 1/27/2023 10:55:00 AM
Project: 23010325
Lab ID: 23020178-003
Matrix: NON-POTABLE WATER
Client Sample ID: 23010325-003

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **HDJ**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	0.87	2.00	U	pCi/L	± 0.56	1	2/17/2023 5:17:57 PM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	0.41	1.00	U	pCi/L	± 0.14	1	2/15/2023
Yield	0.91					1	2/15/2023
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	0.46	1.00	U	pCi/L	± 0.42	1	2/14/2023 1:39:00 PM
Yield	0.92					1	2/14/2023 1:39:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23020178**

Date Reported: **2/22/2023**

CLIENT: TEKLAB Inc,
Collection Date: 1/27/2023 10:35:00 AM

Project: 23010325

Lab ID: 23020178-004
Matrix: NON-POTABLE WATER

Client Sample ID: 23010325-004

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **HDJ**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	0.54	2.00	U	pCi/L	± 0.53	1	2/17/2023 5:17:57 PM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	0.13	1.00	U	pCi/L	± 0.08	1	2/15/2023
Yield	0.97					1	2/15/2023
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	0.41	1.00	U	pCi/L	± 0.45	1	2/14/2023 1:39:00 PM
Yield	0.97					1	2/14/2023 1:39:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23020178**

Date Reported: **2/22/2023**

CLIENT: TEKLAB Inc,
Collection Date: 1/27/2023 11:45:00 AM

Project: 23010325

Lab ID: 23020178-008
Matrix: NON-POTABLE WATER

Client Sample ID: 23010325-009

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **HDJ**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	1.98	2.00	U	pCi/L	± 0.75	1	2/17/2023 5:17:57 PM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	1.11	1.00		pCi/L	± 0.21	1	2/15/2023
Yield	1					1	2/15/2023
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	0.87	1.00	J	pCi/L	± 0.54	1	2/14/2023 1:39:00 PM
Yield	1					1	2/14/2023 1:39:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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QC SUMMARY REPORT

WO#: **23020178**

22-Feb-23

Client: TEKLAB Inc,
Project: 23010325 **BatchID:** **62679**

Sample ID: **23020178-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/7/2023** RunNo: **158366**
Client ID: **23010325-001** Batch ID: **62679** TestNo: **E904.0** **E903-904** Analysis Date: **2/14/2023** SeqNo: **4210556**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.44	1.00		0	0			0	0	30	U
Yield	1			0	0			0.9800	2.02		

Sample ID: **23020178-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/7/2023** RunNo: **158366**
Client ID: **23010325-002** Batch ID: **62679** TestNo: **E904.0** **E903-904** Analysis Date: **2/14/2023** SeqNo: **4210558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.24	1.00		0	0			0.9300	28.6	30	
Yield	1			0	0			0.9600	4.08		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23020178**

22-Feb-23

Client: TEKLAB Inc,
Project: 23010325 **BatchID:** **62679**

Sample ID: **MB-62679**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/7/2023**	RunNo: **158366**
Client ID: **PBW**	Batch ID: **62679**	TestNo: **E904.0**	**E903-904**	Analysis Date: **2/14/2023**	SeqNo: **4210547**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	0.810			0	0						

Sample ID: **LCS-62679**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/7/2023**	RunNo: **158366**
Client ID: **LCSW**	Batch ID: **62679**	TestNo: **E904.0**	**E903-904**	Analysis Date: **2/14/2023**	SeqNo: **4210548**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.71	1.00	5.000	0	74.2	70	130				
Yield	0.920			0	0						

Sample ID: **LCSD-62679**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/7/2023**	RunNo: **158366**
Client ID: **LCSS02**	Batch ID: **62679**	TestNo: **E904.0**	**E903-904**	Analysis Date: **2/14/2023**	SeqNo: **4210549**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.54	1.00	5.000	0	70.8	70	130	3.710	4.69	20	
Yield	0.860			0	0			0.9200	6.74		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23020178**

22-Feb-23

Client: TEKLAB Inc,
Project: 23010325 **BatchID:** **62679**

Sample ID: **RLC-62679** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/7/2023** RunNo: **158366**
Client ID: **BatchQC** Batch ID: **62679** TestNo: **E904.0** **E903-904** Analysis Date: **2/14/2023** SeqNo: **4210551**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.21	1.00	1.000	0	121	50	150				
Yield	0.920			0	0						

Sample ID: **RLCD-62679** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/7/2023** RunNo: **158366**
Client ID: **BatchQC** Batch ID: **62679** TestNo: **E904.0** **E903-904** Analysis Date: **2/14/2023** SeqNo: **4210552**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.900	1.00	1.000	0	90.0	50	150				J
Yield	0.910			0	0						

Sample ID: **23020315-001AMS** SampType: **MS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/7/2023** RunNo: **158366**
Client ID: **BatchQC** Batch ID: **62679** TestNo: **E904.0** **E903-904** Analysis Date: **2/14/2023** SeqNo: **4210553**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.22	1.00	5.000	0	84.4	70	130				
Yield	1.00			0.9700	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23020178**

22-Feb-23

Client: TEKLAB Inc,
Project: 23010325 **BatchID:** **62679**

Sample ID: **23020178-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/7/2023** RunNo: **158369**
Client ID: **23010325-001** Batch ID: **62679** TestNo: **E903.0** **E903-904** Analysis Date: **2/15/2023** SeqNo: **4210647**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.39	1.00						0	0	30	U
Yield	0.99							1.000	1.01	0	

Sample ID: **23020178-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/7/2023** RunNo: **158369**
Client ID: **23010325-002** Batch ID: **62679** TestNo: **E903.0** **E903-904** Analysis Date: **2/15/2023** SeqNo: **4210649**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.64	1.00						0	0	30	U
Yield	0.98							0.9600	2.06	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23020178**

22-Feb-23

Client: TEKLAB Inc,
Project: 23010325 **BatchID:** **62679**

Sample ID: **MB-62679**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/7/2023**	RunNo: **158369**
Client ID: **PBW**	Batch ID: **62679**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/15/2023**	SeqNo: **4210638**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	0.850										

Sample ID: **LCS-62679**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/7/2023**	RunNo: **158369**
Client ID: **LCSW**	Batch ID: **62679**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/15/2023**	SeqNo: **4210639**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.28	1.00	5.000	0	106	70	130				QLR

Sample ID: **RLC-62679**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/7/2023**	RunNo: **158369**
Client ID: **BatchQC**	Batch ID: **62679**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/15/2023**	SeqNo: **4210642**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.29	1.00	1.000	0	129	50	150				

Sample ID: **RLCD-62679**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/7/2023**	RunNo: **158369**
Client ID: **BatchQC**	Batch ID: **62679**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/15/2023**	SeqNo: **4210643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23020178**

22-Feb-23

Client: TEKLAB Inc,
Project: 23010325 **BatchID:** **62679**

Sample ID: **RLCD-62679**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/7/2023**	RunNo: **158369**
Client ID: **BatchQC**	Batch ID: **62679**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/15/2023**	SeqNo: **4210643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.22	1.00	1.000	0	122	50	150				

Sample ID: **23020315-001AMS**	SampType: **MS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/7/2023**	RunNo: **158369**
Client ID: **BatchQC**	Batch ID: **62679**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/15/2023**	SeqNo: **4210644**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.63	1.00	5.000	0	113	70	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: QC Level: 3

Comments: **Please issue reports and invoices via email only**
Please analyze for Radium (226, 228, and combined) by method EPA903.0/904.0
on standard TAT Please include negative values (no ND).
Batch QC and CCR EDD are required. Receipt summary requested

23020178

Project# 23010325

Contact: Shelly A Hennessy Email: SHennessy@TeklabInc.com
Requested Due Date: 20 business days or less Billing/PO: 33924 Phone: 618-344-1004

State of Origin:

PLEASE NOTE:
NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.
Changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	Combined Radium	GPM	pH								
	23010325-001	1/26/23 1420	HNO3	Groundwater	✔	✔	✔	37	23	1	1						
	23010325-002	1/27/23 1319	HNO3	Groundwater	✔	✔	✔	24	23	1	1						
	23010325-003	1/27/23 1055	HNO3	Groundwater	✔	✔	✔	20	23	1	1						
	23010325-004	1/27/23 1035	HNO3	Groundwater	✔	✔	✔	30	10	1	1						
	23010325-005	1/26/23 1351	HNO3	Groundwater	✔	✔	✔	16	20	1	1						
	23010325-006	1/27/23 1240	HNO3	Groundwater	✔	✔	✔	20	27	1	1						
	23010325-007	1/27/23 1205	HNO3	Groundwater	✔	✔	✔	23	27	1	1						
	23010325-009	1/27/23 1145	HNO3	Groundwater	✔	✔	✔	16	40	1	1						
			Unpres	Aqueous													
			Unpres	Aqueous													
			Unpres	Aqueous													

*Relinquished By	Date/Time	Received By	Date/Time
	1/30/23		
		Fedex	2/2/23 1325

2 coolers @ 4.6+0.3 = 4.9 @ 4.5+0.3 = 4.8

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA
3/2/2016

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **23020178** RcptNo: **1**

Logged by:	**Anthony W. Britton**	**2/2/2023 1:05:00 PM**	Anthony Britton
Completed By:	**Anthony W. Britton**	**2/2/2023 7:00:57 PM**	Anthony Britton
Reviewed By:	**Jennifer Woolf**	**2/3/2023 10:02:23 AM**	Jennifer Woolf

Chain of Custody

1.	Were seals intact?	Yes ☑	No ☐	Not Present ☐
2.	Is Chain of Custody complete?	Yes ☐	No ☑	Not Present ☐
3.	How was the sample delivered?	FedEx		

Log In

4.	Coolers are present?	Yes ☐	No ☑	NA ☐
5.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

IL per email
project address not included

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.8	Good	Not Present			

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **23020178** RcptNo: **1**

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	4.9	Good	Not Present			

March 07, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Landfill Monitoring Wells **WorkOrder:** 23010324

Dear Eric Staley:

TEKLAB, INC received 12 samples on 1/27/2023 8:00:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 23010324
Report Date: 07-Mar-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	19
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23010324

Client Project: Landfill Monitoring Wells **Report Date:** 07-Mar-23

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power

Work Order: 23010324

Client Project: Landfill Monitoring Wells

Report Date: 07-Mar-23

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 23010324
Report Date: 07-Mar-23

Cooler Receipt Temp: 0.6 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 23010324

Client Project: Landfill Monitoring Wells

Report Date: 07-Mar-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power
Work Order: 23010324
Client Project: Landfill Monitoring Wells
Report Date: 07-Mar-23
Lab ID: 23010324-009
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 01/26/2023 9:57

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	01/26/2023 9:57	R324169
Depth to water	*	-5.00		**10.40**	ft	1	01/26/2023 9:57	R324169
Depth to water from measuring point	*	0		**13.15**	ft	1	01/26/2023 9:57	R324169
Elevation of groundwater surface	*	0		**542.45**	ft	1	01/26/2023 9:57	R324169
Measuring Point Elevation	*	0		**555.60**	ft	1	01/26/2023 9:57	R324169
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.9**	°F	1	01/26/2023 9:57	R324169
SW-846 9040B								
pH, Field	*	1.00		**6.54**		1	01/26/2023 9:57	R324169
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1940**	µmhos/cm @25C	1	01/26/2023 9:57	R324169
EPA 600 350.1 (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.20		**2.05**	mg/L	2	02/01/2023 11:55	R324270
EPA 600 353.2 R2.0 (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	01/27/2023 13:28	R324122
STANDARD METHODS 2540 C (DISSOLVED) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1150**	mg/L	2.5	01/31/2023 8:58	R324271
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	01/30/2023 20:10	202398
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	100		**378**	mg/L	10	02/01/2023 14:14	R324278
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	4		**41**	mg/L	1	02/01/2023 14:09	R324295
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**7580**	µg/L	1	01/30/2023 18:14	202413
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	01/30/2023 18:14	202413
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	01/30/2023 18:14	202413
Magnesium	NELAP	0.050		**75.5**	mg/L	1	01/30/2023 18:14	202413
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	01/30/2023 18:14	202413
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**133**	µg/L	5	02/01/2023 18:54	202413
Lead	NELAP	1.0		**< 1.0**	µg/L	5	02/01/2023 18:54	202413
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/01/2023 17:59	202480

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 23010324
Report Date: 07-Mar-23

Carrier: Jospeh Riley
Received By: ANC

Completed by: Timothy W. Mathis
On: 27-Jan-23

Reviewed by: Shelly A. Hennessy
On: 27-Jan-23

Pages to follow: Chain of custody 2 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 0.6
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

G110, R111, and G113 were filtered and preserved for the dissolved parameters upon arrival at the laboratory. - TMathis - 1/27/2023 10:23:28 AM

pH strip #79929/87147 ANC. - TMathis - 1/27/2023 10:24:14 AM

Additional nitric acid (86511) and sulfuric acid (86787) was added to G110 and R111; additional sodium hydroxide was needed for R101 and G113 upon arrival at the laboratory. - SHennessy - 1/27/2023 11:25:21 AM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23010324

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 0.6 °C #3
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: Added HNO3(8654) to G110, R111, H2SO4(8678) to G110, R111 NaOH(8148) to R101, G113 PH 7 9 9 2 9 8 7 14 7 *Samples arr
Client Comments: *Dup ⊗Filter in LAB Partially Frozen
Quarters 1, 3, & 4
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER
Landfill Monitoring Wells

SAMPLE COLLECTOR'S NAME
J. TILEY / J. COLP

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)
23010324-001	R101	01/26/23 1252	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
002	G110 ⊗	01/26/23 1319	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
003	R111 ⊗	01/26/23 1357	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
004	G112	01/26/23 1216	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
005	G113 ⊗	01/26/23 1234	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
006	G120	01/26/23 1047	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
007	G121	01/26/23 1130	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
008	G122	01/26/23 1105	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
009	AW-1	01/26/23 0957	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
010	AW-2 ⊗	01/26/23 1040	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
011	RW-3 1440	01/26/23 1357	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	01/27/23 0800	Allison Cole	1/27/23 0800

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Print PDF

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 23010324

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
Quarters 1, 3, & 4
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)
23010324-012	DUPLICATE	01/26/23 1040	Groundwater	1	1	1	1							✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	01/27/23 0800	Allison Cole	1/27/23 0800

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Second Quarter 2023

May 24, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 23040094

Dear Eric Staley:

TEKLAB, INC received 15 samples on 4/17/2023 6:34:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23040094
Report Date: 24-May-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	22
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23040094

Client Project: Ash Pond Monitoring Wells **Report Date:** 24-May-23

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 23040094

Client Project: Ash Pond Monitoring Wells
Report Date: 24-May-23

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23040094
Report Date: 24-May-23

Cooler Receipt Temp: 7.8 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23040094
Report Date: 24-May-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 23040094

Client Project: Ash Pond Monitoring Wells **Report Date:** 24-May-23

Lab ID: 23040094-001 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 04/11/2023 12:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	04/11/2023 12:24	R327742
Depth to water	*	-5.00		**6.04**	ft	1	04/11/2023 12:24	R327742
Depth to water from measuring point	*	0		**8.74**	ft	1	04/11/2023 12:24	R327742
Elevation of groundwater surface	*	0		**530.76**	ft	1	04/11/2023 12:24	R327742
Measuring Point Elevation	*	0		**539.50**	ft	1	04/11/2023 12:24	R327742
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	04/11/2023 12:24	R327742
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.5**	NTU	1	04/11/2023 12:24	R327742
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.6**	°F	1	04/11/2023 12:24	R327742
SW-846 9040B								
pH, Field	*	1.00		**7.06**		1	04/11/2023 12:24	R327742
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**749**	µmhos/cm @25C	1	04/11/2023 12:24	R327742
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**426**	mg/L	1	04/14/2023 10:00	R327370
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	04/17/2023 20:21	R327359
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.52**	mg/L	1	04/13/2023 11:01	R327239
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**31**	mg/L	1	04/17/2023 20:21	R327452
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.145**	mg/L	1	04/14/2023 16:13	204956
Barium	NELAP	0.0025		**0.172**	mg/L	1	04/14/2023 16:13	204956
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	04/14/2023 16:13	204956
Boron	NELAP	0.0200		**0.186**	mg/L	1	04/14/2023 16:13	204956
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	04/14/2023 16:13	204956
Calcium	NELAP	0.100		**70.5**	mg/L	1	04/14/2023 16:13	204956
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/14/2023 16:13	204956
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	04/14/2023 16:13	204956
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	04/14/2023 16:13	204956
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/14/2023 16:13	204956
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	04/14/2023 16:13	204956
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	04/17/2023 19:30	204956
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	04/17/2023 19:30	204956
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	04/17/2023 19:30	204956
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	04/14/2023 15:00	204954
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	05/09/2023 0:00	R329224
Radium-228	*	0		**See attached**	pci/L	1	05/09/2023 0:00	R329224

Client: City Water, Light & Power
Work Order: 23040094
Client Project: Ash Pond Monitoring Wells
Report Date: 24-May-23
Lab ID: 23040094-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 04/12/2023 14:49

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	04/12/2023 14:49	R327742
Depth to water	*	-5.00		**4.74**	ft	1	04/12/2023 14:49	R327742
Depth to water from measuring point	*	0		**7.24**	ft	1	04/12/2023 14:49	R327742
Elevation of groundwater surface	*	0		**528.86**	ft	1	04/12/2023 14:49	R327742
Measuring Point Elevation	*	0		**536.10**	ft	1	04/12/2023 14:49	R327742
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	04/12/2023 14:49	R327742
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.2**	NTU	1	04/12/2023 14:49	R327742
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.6**	°F	1	04/12/2023 14:49	R327742
SW-846 9040B								
pH, Field	*	1.00		**6.44**		1	04/12/2023 14:49	R327742
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1470**	µmhos/cm @25C	1	04/12/2023 14:49	R327742
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1100**	mg/L	1	04/14/2023 10:00	R327370
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**462**	mg/L	20	04/17/2023 20:42	R327359
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.22**	mg/L	1	04/13/2023 11:05	R327239
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**37**	mg/L	1	04/17/2023 20:36	R327452
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	04/14/2023 16:20	204956
Barium	NELAP	0.0025		**0.0656**	mg/L	1	04/14/2023 16:20	204956
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	04/14/2023 16:20	204956
Boron	NELAP	0.0200		**3.70**	mg/L	1	04/14/2023 16:20	204956
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	04/14/2023 16:20	204956
Calcium	NELAP	0.100		**210**	mg/L	1	04/14/2023 16:20	204956
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/14/2023 16:20	204956
Cobalt	NELAP	0.0050		**0.0102**	mg/L	1	04/14/2023 16:20	204956
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	04/14/2023 16:20	204956
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/14/2023 16:20	204956
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	04/14/2023 16:20	204956
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	04/17/2023 19:43	204956
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	04/17/2023 19:43	204956
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	04/17/2023 19:43	204956
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	04/14/2023 15:04	204954
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	05/09/2023 0:00	R329224
Radium-228	*	0		**See attached**	pci/L	1	05/09/2023 0:00	R329224

Client: City Water, Light & Power
Work Order: 23040094
Client Project: Ash Pond Monitoring Wells
Report Date: 24-May-23
Lab ID: 23040094-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 04/12/2023 15:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	04/12/2023 15:26	R327742
Depth to water	*	-5.00		**7.93**	ft	1	04/12/2023 15:26	R327742
Depth to water from measuring point	*	0		**9.63**	ft	1	04/12/2023 15:26	R327742
Elevation of groundwater surface	*	0		**525.77**	ft	1	04/12/2023 15:26	R327742
Measuring Point Elevation	*	0		**535.40**	ft	1	04/12/2023 15:26	R327742
Measuring Point Height Above Land Surface	*	0		**1.70**	ft	1	04/12/2023 15:26	R327742
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.2**	NTU	1	04/12/2023 15:26	R327742
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.6**	°F	1	04/12/2023 15:26	R327742
SW-846 9040B								
pH, Field	*	1.00		**6.64**		1	04/12/2023 15:26	R327742
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1300**	µmhos/cm @25C	1	04/12/2023 15:26	R327742
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**984**	mg/L	1	04/14/2023 10:01	R327370
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**483**	mg/L	10	04/17/2023 21:05	R327359
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.22**	mg/L	1	04/13/2023 11:06	R327239
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**59**	mg/L	5	04/17/2023 21:00	R327452
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**< 0.0250**	mg/L	1	04/14/2023 16:39	204956
Barium	NELAP	0.0025		**0.103**	mg/L	1	04/14/2023 16:39	204956
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	04/14/2023 16:39	204956
Boron	NELAP	0.0200		**14.3**	mg/L	1	04/14/2023 16:39	204956
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	04/14/2023 16:39	204956
Calcium	NELAP	0.100		**168**	mg/L	1	04/14/2023 16:39	204956
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/14/2023 16:39	204956
Cobalt	NELAP	0.0050		**0.0054**	mg/L	1	04/14/2023 16:39	204956
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	04/14/2023 16:39	204956
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/14/2023 16:39	204956
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	04/14/2023 16:39	204956
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	04/17/2023 19:49	204956
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	04/17/2023 19:49	204956
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	04/17/2023 19:49	204956
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	04/14/2023 15:11	204954
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	05/09/2023 0:00	R329224
Radium-228	*	0		**See attached**	pci/L	1	05/09/2023 0:00	R329224

Client: City Water, Light & Power
Work Order: 23040094
Client Project: Ash Pond Monitoring Wells
Report Date: 24-May-23
Lab ID: 23040094-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 04/17/2023 15:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	04/17/2023 15:59	R327742
Depth to water	*	-5.00		**7.80**	ft	1	04/17/2023 15:59	R327742
Depth to water from measuring point	*	0		**10.46**	ft	1	04/17/2023 15:59	R327742
Elevation of groundwater surface	*	0		**528.56**	ft	1	04/17/2023 15:59	R327742
Measuring Point Elevation	*	0		**539.02**	ft	1	04/17/2023 15:59	R327742
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	04/17/2023 15:59	R327742
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**25**	NTU	1	04/17/2023 15:59	R327742
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.7**	°F	1	04/17/2023 15:59	R327742
SW-846 9040B								
pH, Field	*	1.00		**7.11**		1	04/17/2023 15:59	R327742
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**712**	µmhos/cm @25C	1	04/17/2023 15:59	R327742
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**444**	mg/L	1	04/19/2023 9:21	R327565
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	05/01/2023 17:23	R328161
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.53**	mg/L	1	04/21/2023 12:41	R327650
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**70**	mg/L	2	05/01/2023 17:28	R328107
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.0462**	mg/L	1	04/20/2023 18:41	205144
Barium	NELAP	0.0025		**0.162**	mg/L	1	04/20/2023 18:41	205144
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	04/20/2023 18:41	205144
Boron	NELAP	0.0200		**0.391**	mg/L	1	04/20/2023 18:41	205144
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	04/20/2023 18:41	205144
Calcium	NELAP	0.100		**53.6**	mg/L	1	04/20/2023 18:41	205144
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/20/2023 18:41	205144
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	04/20/2023 18:41	205144
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	04/20/2023 18:41	205144
Lithium	NELAP	0.0050		**0.0113**	mg/L	1	04/24/2023 18:16	205144
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	04/20/2023 18:41	205144
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	04/20/2023 22:08	205144
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	04/20/2023 22:08	205144
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	04/20/2023 22:08	205144
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	04/19/2023 15:17	205181
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	05/09/2023 0:00	R329224
Radium-228	*	0		**See attached**	pci/L	1	05/09/2023 0:00	R329224

Client: City Water, Light & Power
Work Order: 23040094
Client Project: Ash Pond Monitoring Wells
Report Date: 24-May-23
Lab ID: 23040094-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 04/12/2023 12:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	04/12/2023 12:12	R327742
Depth to water	*	-5.00		**1.45**	ft	1	04/12/2023 12:12	R327742
Depth to water from measuring point	*	0		**4.35**	ft	1	04/12/2023 12:12	R327742
Elevation of groundwater surface	*	0		**532.85**	ft	1	04/12/2023 12:12	R327742
Measuring Point Elevation	*	0		**537.20**	ft	1	04/12/2023 12:12	R327742
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	04/12/2023 12:12	R327742
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	04/12/2023 12:12	R327742
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.0**	°F	1	04/12/2023 12:12	R327742
SW-846 9040B								
pH, Field	*	1.00		**6.77**		1	04/12/2023 12:12	R327742
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**970**	µmhos/cm @25C	1	04/12/2023 12:12	R327742
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**544**	mg/L	1	04/14/2023 11:15	R327370
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	04/17/2023 21:32	R327359
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.33**	mg/L	1	04/13/2023 11:10	R327239
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**26**	mg/L	1	04/17/2023 21:32	R327452
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		**0.0348**	mg/L	1	04/14/2023 16:46	204956
Barium	NELAP	0.0025		**0.375**	mg/L	1	04/14/2023 16:46	204956
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	04/14/2023 16:46	204956
Boron	NELAP	0.0200		**0.110**	mg/L	1	04/14/2023 16:46	204956
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	04/14/2023 16:46	204956
Calcium	NELAP	0.100		**99.1**	mg/L	1	04/14/2023 16:46	204956
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/14/2023 16:46	204956
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	04/14/2023 16:46	204956
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	04/14/2023 16:46	204956
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/14/2023 16:46	204956
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	04/14/2023 16:46	204956
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	04/17/2023 20:01	204956
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	04/17/2023 20:01	204956
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	04/17/2023 20:01	204956
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	04/14/2023 15:16	204954
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See attached**	pci/L	1	05/09/2023 0:00	R329224
Radium-228	*	0		**See attached**	pci/L	1	05/09/2023 0:00	R329224

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23040094
Report Date: 24-May-23

Carrier: Tracy Carroll

Received By: LM

Completed by: Lindsey Maddox
On: 18-Apr-23

Reviewed by: Elizabeth A. Hurley
On: 18-Apr-23

Pages to follow: Chain of custody 6 Extra pages included 52

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 7.8
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

RW-3 was received on 4/11/23 at 1745 (on ice 10.2C - LTG1). - EAH 4/13/23

pH strip #87147. - acolin - 4/12/2023 12:43:58 PM

AP-1, AP-2, AP-3, AP-6, AP-8, and AP-10 were received on 4/12/23 at 1755 (on ice 3.8C - LTG 1). - EAH 4/13/23

pH strip #88374. - CET/TMathis - 4/13/2023 7:45:17 AM

AP-4, AP-5, and AP-14 were received on 4/13/23 at 1510 (on ice 9.0C - LTG 1). - EAH 4/13/23

AP-7, AP-9, AP-11, AP-12 and AP-13 were received on 4/17/23 at 1634 (on ice 7.8C - LTG 5). - lmaddox 4/18/23

pH strip #88374. - CET/lmaddox - 4/18/2023 9:26:13 AM

Additional Nitric Acid (89071) was needed in AP-11 upon arrival at the laboratory. - CET/lmaddox - 4/18/2023 9:26:50 AM

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23040094

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 10.2 °C
Preserved in: ☐ LAB ☒ FIELD FOR LAB USE ONLY
LAB NOTES: PH 87147 AC 4/12/23

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: Colp | Tomdl

RESULTS REQUESTED: ☑ Standard ☐ 1-2 Day (100% Surcharge) ☐ Other ☐ 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23040094-001	RW-3 8.74	4-11-23/ 1224	Groundwater	1	3								✔	✔	✔	✔	✔	✔
002	AP-1		Groundwater	1	3								✔	✔	✔	✔	✔	✔
003	AP-2		Groundwater	1	3								✔	✔	✔	✔	✔	✔
004	AP-3		Groundwater	1	3								✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	3								✔	✔	✔	✔	✔	✔
006	AP-5		Groundwater	1	3								✔	✔	✔	✔	✔	✔
007	AP-6		Groundwater	1	3								✔	✔	✔	✔	✔	✔
008	AP-7		Groundwater	1	3								✔	✔	✔	✔	✔	✔
009	AP-8		Groundwater	1	3								✔	✔	✔	✔	✔	✔
010	AP-9		Groundwater	1	3								✔	✔	✔	✔	✔	✔
011	AP-10		Groundwater	1	3								✔	✔	✔	✔	✔	✔

5+1 4/13/23

Relinquished By	Date/Time	Received By	Date/Time
Mary Carroll	4/11/23 1745	Allison Colp	4/11/23 1745

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23040094

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 3.8 °C CTG
Preserved in: [ ] LAB [x] FIELD FOR LAB USE ONLY
LAB NOTES: PWS 88374.005 4-12-23.

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Kolp + Carroll

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID		Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23040094-001	RW-3	~~9.14~~	~~4-12-23/ 1224~~	Groundwater	1	3								✓	✓	✓	✓	✓	✓
002	AP-1	9.92	4-12-23/ 1249	Groundwater	1	3								✓	✓	✓	✓	✓	✓
003	AP-2	7.24	4-12-23/ 1449	Groundwater	1	3								✓	✓	✓	✓	✓	✓
004	AP-3	9.63	4-12-23/ 1526	Groundwater	1	3								✓	✓	✓	✓	✓	✓
005	AP-4			Groundwater	1	3								✓	✓	✓	✓	✓	✓
006	AP-5			Groundwater	1	3								✓	✓	✓	✓	✓	✓
007	AP-6	7.43	4-12-23/ 1103	Groundwater	1	3								✓	✓	✓	✓	✓	✓
008	AP-7			Groundwater	1	3								✓	✓	✓	✓	✓	✓
009	AP-8	4.35	4-12-23/ 1212	Groundwater	1	3								✓	✓	✓	✓	✓	✓
010	AP-9			Groundwater	1	3								✓	✓	✓	✓	✓	✓
011	AP-10	3.05	4-12-23/ 1350	Groundwater	1	3								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Jenny Carroll J. Glo	4-12-23 1755		4-12-23 1755

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CTG 4-12-23

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23040094

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 9.0 °C CG

Preserved in: [ ] LAB [x] FIELD FOR LAB USE ONLY

LAB NOTES: ph 8374, CBS 4-13-23.

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No

Are these samples known to be hazardous? [ ] Yes [x] No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:

*elevations, pH, conductivity, temperature

**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo

Quarterly monitoring

PROJECT NAME/NUMBER

Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

JCalp & JCandy

RESULTS REQUESTED

[x] Standard [ ] 1-2 Day (100% Surcharge)

[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID		Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23040094-001	RW-3			Groundwater	1	3								✔	✔	✔	✔	✔	✔
002	AP-1			Groundwater	1	3								✔	✔	✔	✔	✔	✔
003	AP-2			Groundwater	1	3								✔	✔	✔	✔	✔	✔
004	AP-3			Groundwater	1	3								✔	✔	✔	✔	✔	✔
005	AP-4	9.52	4-13-23/ 1013	Groundwater	1	3								✔	✔	✔	✔	✔	✔
006	AP-5	13.05	4-13-23/ 1127	Groundwater	1	3								✔	✔	✔	✔	✔	✔
007	AP-6			Groundwater	1	3								✔	✔	✔	✔	✔	✔
008	AP-7			Groundwater	1	3								✔	✔	✔	✔	✔	✔
009	AP-8			Groundwater	1	3								✔	✔	✔	✔	✔	✔
010	AP-9			Groundwater	1	3								✔	✔	✔	✔	✔	✔
011	AP-10			Groundwater	1	3								✔	✔	✔	✔	✔	✔

(HNO3 to pH<2 4/13/23)

Relinquished By	Date/Time	Received By	Date/Time
Jennifer Carroll J. Sch	4-13-23 / 1449	Monyun Peter	4/13/23 1449 (+5.0 temp)

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CBS 4-13-23

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 23040094

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
J Culp & T Carroll

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID		Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	CL F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23040094-012	AP-11			Groundwater	1	3								✔	✔	✔	✔	✔	✔
013	AP-12			Groundwater	1	3								✔	✔	✔	✔	✔	✔
014	AP-13			Groundwater	1	3								✔	✔	✔	✔	✔	✔
015	AP-14	2.40	4-13-23 1106	Groundwater	1	3								✔	✔	✔	✔	✔	✔
				Groundwater															
				Groundwater															
				Groundwater															
				Groundwater															
				Groundwater															
				Groundwater															
				Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Jason Carroll 2.606	4-13-23 1449	Morgan Perin	4/13/23 1449

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23040094

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 7.8 °C
Preserved in: [X] LAB [X] FIELD 4-18-23 FOR LAB USE ONLY LTG5
LAB NOTES: pH<2 8374. Added HNO3(8907) to 2L Amb.
CFT 4-18-23

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
JCalp & TCarroll

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID		Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23040094-001	RW-3			Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1			Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2			Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3			Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4			Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5			Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6			Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7	10.46	4-17-23 1559	Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8			Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9	12.13	4-17-23 1521	Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10			Groundwater	1	2								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carroll	4/17/23 18:34	AMP	4/17/23 18:34

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CFT 4-18-23

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 23040094

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

Client Comments:

*elevations, pH, conductivity, temperature

**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo

Quarterly monitoring

PROJECT NAME/NUMBER

Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

T Carroll JCalp

RESULTS REQUESTED

☑ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23040094-012	AP-11 14.20	4-17-23 1349	Groundwater	1	3								✔	✔	✔	✔	✔	✔
013	AP-12 14.96	4-17-23 1312	Groundwater	1	3								✔	✔	✔	✔	✔	✔
014	AP-13 13.91	4-17-23 1134	Groundwater	1	3								✔	✔	✔	✔	✔	✔
015	AP-14		Groundwater	1	3								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carroll	4/17/23 1834		4/17/23 1834

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client:

Project Number: Task #: Start Date: Time:

Field Personnel: J. Cobb / T. Carroll Finish Date: 4-11-23 Time: 1224

WELL INFORMATION

Well ID: RW-3

Casing ID: inches

EVENT TYPE

Well Development Low-Flow / Low Stress Sampling Other

Well Volume Approach Sampling (Specify): Low Flow

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	1157		8.74								
	1212	0.65			14.1	7.13	737	2.24	12.81	-108.0	
	1215	0.78			14.1	7.11	740	2.12	9.92	-110.2	
	1218	0.91			14.1	7.09	743	2.00	8.42	-112.5	
	1221	1.04			14.2	7.08	745	1.89	4.80	-114.4	
	1224	1.17		14.90	14.2	7.06	749	1.78	4.49	-116.3	

NOTES (continued)

Bladder pump / Clear / No turbidity / Slight odor

ABBREVIATIONS

Cond. - Actual Conductivity
FT BTOC - Feet Below Top of Casing na - Not Applicable
nm - Not Measured
ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units
Temp - Temperature
°C - Degrees Celcius

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CCP Client:

Project Number: Task #: Start Date: Time:

Field Personnel: J. Cobb / T. Carroll Finish Date: 4-12-23 Time: 1449

WELL INFORMATION

Well ID: AP-2

Casing ID: inches

EVENT TYPE

Well Development Low-Flow / Low Stress Sampling Other

Well Volume Approach Sampling (Specify): Low Flow

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	1401		7.24								
	1437	1.56			13.1	6.45	1450	0.70	11.34	-2.1	
	1440	1.69			13.1	6.45	1453	0.69	11.01	-2.4	
	1443	1.82			13.0	6.45	1460	0.67	10.17	-2.7	
	1446	1.82			13.1	6.45	1465	0.66	8.94	-2.9	
	1449	1.95		7.38	13.1	6.44	1469	0.64	9.24	-3.2	

NOTES (continued)

Bladder Pump / Slight turbidity / Strong odor / Clear

ABBREVIATIONS

Cond. - Actual Conductivity
FT BTOC - Feet Below Top of Casing na - Not Applicable
nm - Not Measured
ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units
Temp - Temperature
°C - Degrees Celcius

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CwLP Client:

Project Number: Task #: Start Date: Time:

Field Personnel: J.Gelb/T. Carroll Finish Date: 4-12-23 Time: 1526

WELL INFORMATION

Well ID: AP3

Casing ID: inches

EVENT TYPE

Well Development

Well Volume Approach Sampling

Low-Flow / Low Stress Sampling Other

(Specify): Low Flow

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	1505		9.63								
	1520	0.65			13.1	6.64	1302	1.09	7.99	-78.7	
	1523	0.78			13.0	6.64	1303	0.99	6.92	-79.7	
	1526	0.91		9.70	13.1	6.64	1300	0.91	6.21	-80.6	

NOTES (continued)

Bladder Pump / Clear / no odor / no turbidity

ABBREVIATIONS

Cond. - Actual Conductivity
FT BTOC - Feet Below Top of Casing na - Not Applicable
nm - Not Measured
ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units
Temp - Temperature
°C - Degrees Celcius

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP
Client:
Project Number:
Task #:
Start Date:
Time:
Field Personnel: J-Cap / T. Carroll
Finish Date: 4-17-23
Time: 1559

WELL INFORMATION

Well ID: AP-7
Casing ID: inches

EVENT TYPE

☐ Well Development
☐ Well Volume Approach Sampling
☐ Low-Flow / Low Stress Sampling
☐ Other (Specify):

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	1532		10.46								
	1547	0.65			12.5	7.10	675	3.4	19.88	-96.9	
	1550	0.78			12.5	7.09	681	3.1	26.30	-99.1	
	1553	0.91			12.5	7.08	689	2.8	30.59	-102.2	
	1556	1.04			12.6	7.09	698	2.7	25.70	-104.0	
	1559	1.17		19.15	12.6	7.11	712	2.6	27.53	-104.4	

NOTES (continued)

Bladder Pump / odor moderate / clear / slight turbidity /

ABBREVIATIONS

Cond. - Actual Conductivity
FT BTOC - Feet Below Top of Casing
na - Not Applicable
nm - Not Measured
ORP - Oxidation-Reduction Potential
SEC - Specific Electrical Conductance
SU - Standard Units
Temp - Temperature
°C - Degrees Celcius

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client:

Project Number: Task #: Start Date: Time:

Field Personnel: J. Cap / T. Carroll Finish Date: 4-12-23 Time: 1212

WELL INFORMATION

Well ID: AO-8

Casing ID: inches

EVENT TYPE

Well Development

Well Volume Approach Sampling

Low-Flow / Low Stress Sampling Other

(Specify): Low Flow

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	1127		4.35								
	1154	1.17			13.6	6.80	971	0.76	22.90	-159.8	
	1157	1.30			13.6	6.80	970	0.73	22.41	-160.5	
	1200	1.43			13.6	6.79	969	0.70	17.84	-160.7	
	1203	1.56			13.8	6.79	970	0.66	14.62	-160.3	
	1206	1.69			13.8	6.78	970	0.67	13.26	-160.2	
	1209	1.82			13.9	6.78	971	0.66	12.88	-160.1	
	1212	1.95		4.52	13.9	6.77	970	0.65	12.83	-159.6	

NOTES (continued)

Submersible pump / Clear / Slight turbidity / no odor

ABBREVIATIONS

Cond. - Actual Conductivity
FT BTOC - Feet Below Top of Casing na - Not Applicable
nm - Not Measured
ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units
Temp - Temperature
°C - Degrees Celcius

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

May 23, 2023

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 23040094

Order No.: 23041812

Dear Shelly Hennessy:

Summit Environmental Technologies, Inc. received 15 sample(s) on 4/26/2023 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **23041812**
Date: **5/23/2023**

CLIENT: TEKLAB Inc,
Project: 23040094

WorkOrder Narrative:
23041812: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **23041812**
Date: **5/23/2023**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **23041812**

23-May-23

CLIENT: TEKLAB Inc,
Project: 23040094

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
23041812-001	23040094-001		4/11/2023 12:24:00 PM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-002	23040094-002		4/12/2023 12:49:00 PM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-003	23040094-003		4/12/2023 2:49:00 PM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-004	23040094-004		4/12/2023 3:26:00 PM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-005	23040094-005		4/13/2023 10:13:00 AM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-006	23040094-006		4/13/2023 11:27:00 AM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-007	23040094-007		4/12/2023 11:03:00 AM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-008	23040094-008		4/17/2023 3:59:00 PM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-009	23040094-009		4/12/2023 12:12:00 PM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-010	23040094-010		4/17/2023 3:21:00 PM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-011	23040094-011		4/12/2023 1:50:00 PM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-012	23040094-012		4/17/2023 1:49:00 PM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-013	23040094-013		4/17/2023 1:12:00 PM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-014	23040094-014		4/17/2023 11:34:00 AM	4/26/2023 1:10:00 PM	Non-Potable Water
23041812-015	23040094-015		4/13/2023 11:06:00 AM	4/26/2023 1:10:00 PM	Non-Potable Water

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,

Project: 23040094

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23041812-001A	23040094-001	4/11/2023 12:24:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		4/28/2023 9:55:00 AM	5/9/2023 12:05:00 PM
				Radium-228 (EPA 904.0)		4/28/2023 9:55:00 AM	5/8/2023 2:58:00 PM
				Radium-228 (EPA 904.0)		5/11/2023 9:48:00 AM	5/16/2023 3:00:00 PM
23041812-002A	23040094-002	4/12/2023 12:49:00 PM		Radium-226 (EPA 903.0)		4/28/2023 9:55:00 AM	5/9/2023 12:05:00 PM
				Radium-228 (EPA 904.0)		4/28/2023 9:55:00 AM	5/8/2023 2:58:00 PM
23041812-003A	23040094-003	4/12/2023 2:49:00 PM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-004A	23040094-004	4/12/2023 3:26:00 PM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-005A	23040094-005	4/13/2023 10:13:00 AM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-006A	23040094-006	4/13/2023 11:27:00 AM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-007A	23040094-007	4/12/2023 11:03:00 AM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-008A	23040094-008	4/17/2023 3:59:00 PM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-009A	23040094-009	4/12/2023 12:12:00 PM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-010A	23040094-010	4/17/2023 3:21:00 PM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-011A	23040094-011	4/12/2023 1:50:00 PM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM

Original

Summit Environmental Technologies, Inc.
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DATES REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,

Project: 23040094

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23041812-012A	23040094-012	4/17/2023 1:49:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-013A	23040094-013	4/17/2023 1:12:00 PM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-014A	23040094-014	4/17/2023 11:34:00 AM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM
23041812-015A	23040094-015	4/13/2023 11:06:00 AM		Radium-226 (EPA 903.0)		5/1/2023 12:25:00 PM	5/10/2023 9:46:00 AM
				Radium-228 (EPA 904.0)		5/1/2023 12:25:00 PM	5/9/2023 3:21:00 PM

Original

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Analytical Report

(consolidated)

WO#: **23041812**

Date Reported: **5/23/2023**

CLIENT: TEKLAB Inc,
Project: 23040094
Lab ID: 23041812-001
Client Sample ID: 23040094-001

Collection Date: 4/11/2023 12:24:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	0.19	1.00	U	pCi/L	± 0.1	1	5/9/2023 12:05:00 PM
Yield	0.96					1	5/9/2023 12:05:00 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	0.29	1.00	U	pCi/L	± 0.43	1	5/16/2023 3:00:00 PM
Yield	0.9					1	5/16/2023 3:00:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23041812**

Date Reported: **5/23/2023**

CLIENT: TEKLAB Inc,
Project: 23040094
Lab ID: 23041812-003
Client Sample ID: 23040094-003

Collection Date: 4/12/2023 2:49:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	0.29	1.00	U	pCi/L	± 0.16	1	5/10/2023 9:46:00 AM
Yield	0.94					1	5/10/2023 9:46:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	2.21	1.00		pCi/L	± 0.92	1	5/9/2023 3:21:00 PM
Yield	0.94					1	5/9/2023 3:21:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23041812**

Date Reported: **5/23/2023**

CLIENT: TEKLAB Inc,
Collection Date: 4/12/2023 3:26:00 PM
Project: 23040094
Lab ID: 23041812-004
Matrix: NON-POTABLE WATER
Client Sample ID: 23040094-004

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	-0.03	1.00	U	pCi/L	± 0.17	1	5/10/2023 9:46:00 AM
Yield	0.9					1	5/10/2023 9:46:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	0.39	1.00	U	pCi/L	± 0.72	1	5/9/2023 3:21:00 PM
Yield	0.96					1	5/9/2023 3:21:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23041812**

Date Reported: **5/23/2023**

CLIENT: TEKLAB Inc,

Collection Date: 4/17/2023 3:59:00 PM

Project: 23040094

Lab ID: 23041812-008

Matrix: NON-POTABLE WATER

Client Sample ID: 23040094-008

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	0.37	1.00	U	pCi/L	± 0.17	1	5/10/2023 9:46:00 AM
Yield	0.94					1	5/10/2023 9:46:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	1.17	1.00		pCi/L	± 0.89	1	5/9/2023 3:21:00 PM
Yield	0.94					1	5/9/2023 3:21:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23041812**

Date Reported: **5/23/2023**

CLIENT: TEKLAB Inc,
Project: 23040094
Lab ID: 23041812-009
Client Sample ID: 23040094-009

Collection Date: 4/12/2023 12:12:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	1.22	1.00		pCi/L	± 0.28	1	5/10/2023 9:46:00 AM
Yield	1					1	5/10/2023 9:46:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	1.66	1.00		pCi/L	± 0.94	1	5/9/2023 3:21:00 PM
Yield	1					1	5/9/2023 3:21:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **64709**

Sample ID: **MB-64709**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163427**
Client ID: **PBW**	Batch ID: **64709**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/8/2023**	SeqNo: **4346663**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.640	1.00		0	0						J
Yield	0.980			0	0						

Sample ID: **LCS-64709**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163427**
Client ID: **LCSW**	Batch ID: **64709**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/8/2023**	SeqNo: **4346664**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.43	1.00	5.000	0	88.6	70	130				
Yield	1.00			0	0						

Sample ID: **RLCD-64709**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163427**
Client ID: **BatchQC**	Batch ID: **64709**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/8/2023**	SeqNo: **4346668**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.970	1.00	1.000	0	97.0	50	150				J
Yield	1.00			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,

Project: 23040094 **BatchID:** **64709**

Sample ID: **23041659-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **4/28/2023** RunNo: **163427**

Client ID: **BatchQC** Batch ID: **64709** TestNo: **E904.0** **E903-904** Analysis Date: **5/8/2023** SeqNo: **4346672**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	U
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **64709**

Sample ID: **MB-64709**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163434**
Client ID: **PBW**	Batch ID: **64709**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4346930**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	1.00										

Sample ID: **LCS-64709**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163434**
Client ID: **LCSW**	Batch ID: **64709**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4346931**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.16	1.00	5.000	0	103	70	130				

Sample ID: **LCSD-64709**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163434**
Client ID: **LCSS02**	Batch ID: **64709**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4346932**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.38	1.00	5.000	0	108	70	130	5.160	4.17	20	

Sample ID: **RLC-64709**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163434**
Client ID: **BatchQC**	Batch ID: **64709**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4346934**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **64709**

Sample ID: **RLC-64709**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163434**
Client ID: **BatchQC**	Batch ID: **64709**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4346934**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.21	1.00	1.000	0	121	50	150				

Sample ID: **RLCD-64709**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163434**
Client ID: **BatchQC**	Batch ID: **64709**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4346935**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.09	1.00	1.000	0	109	50	150				

Sample ID: **23041658-001AMS**	SampType: **MS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163434**
Client ID: **BatchQC**	Batch ID: **64709**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4346936**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.09	1.00	5.000	0	102	70	130				

Sample ID: **23041659-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **4/28/2023**	RunNo: **163434**
Client ID: **BatchQC**	Batch ID: **64709**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4346939**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **64709**

Sample ID: **23041659-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/28/2023** RunNo: **163434**
Client ID: **BatchQC** Batch ID: **64709** TestNo: **E903.0** **E903-904** Analysis Date: **5/9/2023** SeqNo: **4346939**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Yield	0.970							0.9600	1.04	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **64851**

Sample ID: **MB-64851**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163841**
Client ID: **PBW**	Batch ID: **64851**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4362722**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.930	1.00		0	0						J
Yield	0.880			0	0						

Sample ID: **LCS-64851**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163841**
Client ID: **LCSW**	Batch ID: **64851**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4362723**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.60	1.00	5.000	0	72.0	70	130				
Yield	0.880			0	0						

Sample ID: **RLC-64851**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163841**
Client ID: **BatchQC**	Batch ID: **64851**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/9/2023**	SeqNo: **4362726**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.69	1.00	1.000	0	269	50	150				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **64851**

Sample ID: **RLCD-64851** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/1/2023** RunNo: **163841**
Client ID: **BatchQC** Batch ID: **64851** TestNo: **E904.0** **E903-904** Analysis Date: **5/9/2023** SeqNo: **4362727**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.99	1.00	1.000	0	199	50	150				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **64851**

Sample ID: **23041819-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/1/2023** RunNo: **163841**
Client ID: **BatchQC** Batch ID: **64851** TestNo: **E904.0** **E903-904** Analysis Date: **5/9/2023** SeqNo: **4362731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	U
Yield	0.930			0	0			0.9800	5.24		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **64851**

Sample ID: **MB-64851**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163869**
Client ID: **PBW**	Batch ID: **64851**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/10/2023**	SeqNo: **4363196**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	0.880										

Sample ID: **LCS-64851**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163869**
Client ID: **LCSW**	Batch ID: **64851**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/10/2023**	SeqNo: **4363197**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.48	1.00	5.000	0	110	70	130				

Sample ID: **LCSD-64851**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163869**
Client ID: **LCSS02**	Batch ID: **64851**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/10/2023**	SeqNo: **4363198**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.17	1.00	5.000	0	103	70	130	5.480	5.82	20	

Sample ID: **RLCD-64851**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163869**
Client ID: **BatchQC**	Batch ID: **64851**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/10/2023**	SeqNo: **4363201**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23041812**
23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **64851**

Sample ID: **RLCD-64851**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163869**
Client ID: **BatchQC**	Batch ID: **64851**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/10/2023**	SeqNo: **4363201**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.34	1.00	1.000	0	134	50	150				

Sample ID: **23041815-001AMS**	SampType: **MS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163869**
Client ID: **BatchQC**	Batch ID: **64851**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/10/2023**	SeqNo: **4363202**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.61	1.00	5.000	0.9600	93.0	70	130				

Sample ID: **23041819-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163869**
Client ID: **BatchQC**	Batch ID: **64851**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/10/2023**	SeqNo: **4363205**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	0.940							0.9600	2.11	0	

Sample ID: **23041990-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/1/2023**	RunNo: **163869**
Client ID: **BatchQC**	Batch ID: **64851**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/10/2023**	SeqNo: **4363207**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **64851**

Sample ID: **23041990-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/1/2023** RunNo: **163869**
Client ID: **BatchQC** Batch ID: **64851** TestNo: **E903.0** **E903-904** Analysis Date: **5/10/2023** SeqNo: **4363207**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.760	1.00						0	200	20	JR
Yield	0.990							0.9700	2.04	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **65044**

Sample ID: **MB-65044**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/11/2023**	RunNo: **163963**
Client ID: **PBW**	Batch ID: **65044**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/16/2023**	SeqNo: **4366735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.660	1.00		0	0						J
Yield	0.890			0	0						

Sample ID: **LCS-65044**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/11/2023**	RunNo: **163963**
Client ID: **LCSW**	Batch ID: **65044**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/16/2023**	SeqNo: **4366736**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.81	1.00	5.000	0	56.2	70	130				
Yield	0.910			0	0						

Sample ID: **LCSD-65044**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/11/2023**	RunNo: **163963**
Client ID: **LCSS02**	Batch ID: **65044**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/16/2023**	SeqNo: **4366737**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.74	1.00	5.000	0	74.8	70	130	2.810	28.4	20	
Yield	0.960			0	0			0.9100	5.35		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23041812**

23-May-23

Client: TEKLAB Inc,
Project: 23040094 **BatchID:** **65044**

Sample ID: **RLCD-65044**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/11/2023**	RunNo: **163963**
Client ID: **BatchQC**	Batch ID: **65044**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/16/2023**	SeqNo: **4366740**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.23	1.00	1.000	0	123	50	150				
Yield	0.960			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

23041812

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Tracy Carroll/TEKLAB | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 on your standard turn around time.
Samples collected from an IL site.
Batch QC is required for all analyses requested. EDD requested..

Project# 23040094

Contact: Shelly Hennessey | Email: shennessey@teklabinc.com
Requested Due Date: Standard TAT | Billing/PO: 34257 | Phone: (618) 344-1004

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228												
	23040094-001	4/11/23 1224	HNO3	Groundwater	✔	PH	1	CPM	23								
	23040094-002	4/12/23 1249	HNO3	Groundwater	✔		1		29								
	23040094-003	4/12/23 1449	HNO3	Groundwater	✔		1		31								
	23040094-004	4/12/23 1526	HNO3	Groundwater	✔		1		36								
	23040094-005	4/13/23 1013	HNO3	Groundwater	✔		1		24								
	23040094-006	4/13/23 1127	HNO3	Groundwater	✔		1		35								
	23040094-007	4/12/23 1103	HNO3	Groundwater	✔		1		21								
	23040094-008	4/17/23 1559	HNO3	Groundwater	✔		1		27								
	23040094-009	4/12/23 1212	HNO3	Groundwater	✔		1		32								
	23040094-010	4/17/23 1521	HNO3	Groundwater	✔		1		39								
	23040094-011	4/12/23 1350	HNO3	Groundwater	✔	✔	1	✔	41								

*Relinquished By	Date/Time	Received By	Date/Time
[illegible]	4/18/23	[illegible]	04/26/23 1310

13.1+0.1=13.2, Fedex cooler

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA
3/2/2016

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Tracy Carroll/TEKLAB | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 on your standard turn around time.
Samples collected from an IL site.
Batch QC is required for all analyses requested. EDD requested..

Project# 23040094

Contact: Shelly Hennessey | Email: shennessey@teklabinc.com
Requested Due Date: Standard TAT | Billing/PO: 34257 | Phone: (618) 344-1004

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228												
	23040094-012	4/17/23 1349	HNO3	Groundwater	☑	PH	1	CRM	16								
	23040094-013	4/17/23 1312	HNO3	Groundwater	☑		1		20								
	23040094-014	4/17/23 1134	HNO3	Groundwater	☑		1		19								
	23040094-015	4/13/23 1106	HNO3	Groundwater	☑	✓	1	✓	28								
			HNO3	Groundwater	☐												
			HNO3	Groundwater	☐												
			HNO3	Groundwater	☐												
			HNO3	Groundwater	☐												
			HNO3	Groundwater	☐												
			HNO3	Groundwater	☐												
			HNO3	Groundwater	☐												

*Relinquished By	Date/Time	Received By	Date/Time
JMP	4/18/23		

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights. Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA
3/2/2016

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **23041812** RcptNo: **1**

Logged by:	**Anthony W. Britton**	**4/26/2023 1:10:00 PM**	Anthony Britton
Completed By:	**Anthony W. Britton**	**4/26/2023 4:55:12 PM**	Anthony Britton
Reviewed By:	**Jennifer Woolf**	**4/26/2023 6:42:30 PM**	Jennifer Woolf

Chain of Custody

1.	Were seals intact?	Yes ☑	No ☐	Not Present ☐
2.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3.	How was the sample delivered?	FedEx		

Log In

4.	Coolers are present?	Yes ☐	No ☑	NA ☐
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	13.2	Good	Not Present			

May 03, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Landfill Monitoring Wells G1-G2 **WorkOrder:** 23040093

Dear Eric Staley:

TEKLAB, INC received 12 samples on 4/12/2023 5:55:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Work Order: 23040093
Client Project: Landfill Monitoring Wells G1-G2
Report Date: 03-May-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	31
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23040093

Client Project: Landfill Monitoring Wells G1-G2 **Report Date:** 03-May-23

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power

Work Order: 23040093

Client Project: Landfill Monitoring Wells G1-G2

Report Date: 03-May-23

Qualifiers

- Unknown hydrocarbon

B - Analyte detected in associated Method Blank

C - RL shown is a Client Requested Quantitation Limit

E - Value above quantitation range

H - Holding times exceeded

I - Associated internal standard was outside method criteria

J - Analyte detected below quantitation limits

M - Manual Integration used to determine area response

ND - Not Detected at the Reporting Limit

R - RPD outside accepted recovery limits

S - Spike Recovery outside recovery limits

T - TIC(Tentatively identified compound)

X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 23040093
Client Project: Landfill Monitoring Wells G1-G2
Report Date: 03-May-23

Cooler Receipt Temp: 3.8 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 23040093

Client Project: Landfill Monitoring Wells G1-G2

Report Date: 03-May-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 23040093

Client Project: Landfill Monitoring Wells G1-G2 **Report Date:** 03-May-23

Lab ID: 23040093-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 04/11/2023 10:49

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	04/11/2023 10:49	R327707
Depth to water	*	-5.00		**10.62**	ft	1	04/11/2023 10:49	R327707
Depth to water from measuring point	*	0		**13.37**	ft	1	04/11/2023 10:49	R327707
Elevation of groundwater surface	*	0		**542.23**	ft	1	04/11/2023 10:49	R327707
Measuring Point Elevation	*	0		**555.60**	ft	1	04/11/2023 10:49	R327707
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.7**	°F	1	04/11/2023 10:49	R327707
SW-846 9040B								
pH, Field	*	1.00		**6.47**		1	04/11/2023 10:49	R327707
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1550**	µmhos/cm @25C	1	04/11/2023 10:49	R327707
EPA 600 350.1 (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.75**	mg/L	1	04/13/2023 13:54	R327246
EPA 600 350.1 (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.74**	mg/L	1	04/13/2023 13:51	R327246
EPA 600 353.2 R2.0 (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/12/2023 17:13	R327235
EPA 600 353.2 R2.0 (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/12/2023 18:17	R327235
STANDARD METHODS 2540 C (DISSOLVED) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1120**	mg/L	1	04/14/2023 11:57	R327370
STANDARD METHODS 5210 B 2001, 2011								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/12/2023 17:20	204912
STANDARD METHODS 5220 D (TOTAL) 1997								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/17/2023 13:14	R327362
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/17/2023 9:47	204993
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	100		**389**	mg/L	10	04/14/2023 9:25	R327292
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**399**	mg/L	10	04/14/2023 10:20	R327292
SW-846 9060								
Total Organic Carbon (TOC)	NELAP	1.0		**2.8**	mg/L	1	04/18/2023 19:38	R327458
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**< 0.10**	mg/L	1	04/13/2023 11:36	R327239
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	4		**44**	mg/L	1	04/14/2023 9:20	R327293
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**41**	mg/L	1	04/14/2023 10:16	R327293
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**7970**	µg/L	1	04/13/2023 12:53	204916
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/13/2023 12:53	204916
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/13/2023 12:53	204916
Magnesium	NELAP	0.050		**79.4**	mg/L	1	04/13/2023 12:53	204916

Client: City Water, Light & Power **Work Order:** 23040093

Client Project: Landfill Monitoring Wells G1-G2 **Report Date:** 03-May-23

Lab ID: 23040093-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 04/11/2023 10:49

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/13/2023 12:53	204916
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**635**	µg/L	1	04/13/2023 16:19	204911
Barium	NELAP	2.5		**622**	µg/L	1	04/13/2023 16:19	204911
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/13/2023 16:19	204911
Boron	NELAP	20.0		**8390**	µg/L	1	04/13/2023 16:19	204911
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/13/2023 16:19	204911
Calcium	NELAP	0.100		**191**	mg/L	1	04/13/2023 16:19	204911
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/13/2023 16:19	204911
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/13/2023 16:19	204911
Copper	NELAP	5.0		**< 5.0**	µg/L	1	04/13/2023 16:19	204911
Iron	NELAP	40.0		**43300**	µg/L	1	04/13/2023 16:19	204911
Magnesium	NELAP	0.050		**83.2**	mg/L	1	04/13/2023 16:19	204911
Manganese	NELAP	7.0		**178**	µg/L	1	04/13/2023 16:19	204911
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	04/13/2023 16:19	204911
Potassium	NELAP	0.100		**2.24**	mg/L	1	04/13/2023 16:19	204911
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	04/13/2023 16:19	204911
Silver	NELAP	7.0		**< 7.0**	µg/L	1	04/13/2023 16:19	204911
Sodium	NELAP	0.050		**29.8**	mg/L	1	04/13/2023 16:19	204911
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	04/13/2023 16:19	204911
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/13/2023 16:19	204911
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**150**	µg/L	5	04/14/2023 21:14	204916
Lead	NELAP	1.0		**< 1.0**	µg/L	5	04/13/2023 20:24	204916
LCS recovered outside upper control limits for Pb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	04/13/2023 20:03	204911
Arsenic	NELAP	1.0		**152**	µg/L	5	04/13/2023 20:03	204911
Lead	NELAP	1.0		**< 1.0**	µg/L	5	04/13/2023 20:03	204911
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	04/13/2023 20:03	204911
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/13/2023 10:17	204914
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/13/2023 10:15	204914

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 23040093
Client Project: Landfill Monitoring Wells G1-G2
Report Date: 03-May-23

Carrier: Justin Colp
Received By: TWM

Completed by: Timothy W. Mathis
On: 13-Apr-23

Reviewed by: Elizabeth A. Hurley
On: 13-Apr-23

Pages to follow: Chain of custody 4 Extra pages included 11

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 3.8
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

R111, G112, G113, G120, G121, G122, and Duplicate were received on 4/10/23 at 1916 (on ice 3.4C - LTG 5).. - ehurley - 4/11/2023 10:05:36 AM

pH strip #88374/79929. - CET/ehurley - 4/11/2023 10:06:08 AM

R101, AW-1, AW-2, and RW-3 were received on 4/11/23 at 1745 (on ice 10.2C - LTG5). - EAH 4/13/23

pH strip #79929/87147. - acolin - 4/12/2023 12:42:00 PM

G110 was received on 4/12/23 at 1755 (on ice 3.8C - LTG1). - EAH 4/13/23

pH strip #79929/88374. - CET/TMathis - 4/13/2023 7:28:42 AM

G110 was filtered and preserved for the dissolved parameters upon arrival at the laboratory. - TMathis - 4/13/2023 7:29:33 AM

Additional NaOH (81662) and H2SO4 (86787) were needed in G110 upon arrival at the laboratory. - TMathis - 4/13/2023 7:29:51 AM

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23040093

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

23040093

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 3.4 °C LTG.

Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES: Phs 8874/9929. Azide NaOH (8166) to all NaOH samples. CTF 4-11-23

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:

Quarter 2

*elevations, pH, conductivity, temperature

**As B Cd Cr Pb Mg Hg Zn

***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER

Landfill Monitoring Wells G1-G2

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED

☐ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID		Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED										
					UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)				
23040093-001	R101			Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
002	G110			Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
003	R111	24.66	4-10-23	1731	Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
004	G112	27.57	4-10-23	1623	Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
005	G113	3.90	4-10-23	1500	Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
006	G120	14.93	4-10-23	1253	Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
007	G121	26.85	4-10-23	1349	Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
008	G122	28.70	4-10-23	1417	Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
009	AW-1				Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
010	AW-2				Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
011	RW-3				Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	4-10-23 / 1916	Meghan Reiter	4/10/23 1916

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CTF 4-11-23

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 23040093

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:

Quarter 2

*elevations, pH, conductivity, temperature

**As B Cd Cr Pb Mg Hg Zn

***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER

Landfill Monitoring Wells G1-G2

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED

☐ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)				
23040093-012	Duplicate 27.57	4-10-23 1623	Groundwater	2	2	1	4							✔	✔	✔	✔	✔	✔	✔	✔	✔				
			Groundwater																							
			Groundwater																							
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			Groundwater																							
			Groundwater																							
			Groundwater																							

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	4-10-23 / 1916	Morgan Porter	4/10/23 1916

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23040093

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 10.2 °C
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY LTG5
LAB NOTES:
pH 79929, 87147 AC 4/12/23

Client Comments: X = Filter in lab
Quarter 2
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2

SAMPLE COLLECTOR'S NAME
JColp / TFarrell

RESULTS REQUESTED
[ ] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)				
23040093-001	R101 5.80	4-11-23/1416	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
002	G110 ~~8.23~~ 7.97	4-11-23/1527	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
003	R111		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
004	G112		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
005	G113		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
006	G120		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
007	G121		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
008	G122		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
009	AW-1 13.37	4-11-23/1049	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
010	AW-2 4.20	4-11-23/1142	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
011	RW-3 8.74	4-11-23/1224	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				

Relinquished By	Date/Time	Received By	Date/Time
Tfarrell	4/11/23 1745	Allison Colp	4/11/23 1745

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23040093

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 3.8 °C TG.1

Preserved in: ☒ LAB ☐ FIELD

FOR LAB USE ONLY

LAB NOTES: pH-583/4/1799391 Added NaOH (81662) to 6/10. Added
* = Filter in lab H2SO4 (86787) to 125ml amber

Client Comments: From 6/10.

Quarter 2 4-13-23
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
Landfill Monitoring Wells G1-G2	

RESULTS REQUESTED

☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl SO4 TDS (O)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)				
23040093-001	R101		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
002	G110 * 23.47	4-12-23 1017	Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
003	R111		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
004	G112		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
005	G113		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
006	G120		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
007	G121		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
008	G122		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
009	AW-1		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
010	AW-2		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
011	RW-3		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				

Relinquished By	Date/Time	Received By	Date/Time
J. Gb	4-12-23 1755		4.12.23 1755

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CB 4-13-23

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CCR LP Client: Vistra

Project Number: Task #: Start Date: Time:

Field Personnel: J. Cobb / T. Carroll Finish Date: 4-11-23 Time: 1049

WELL INFORMATION

Well ID: AW-1

Casing ID: inches

EVENT TYPE

Well Development

Well Volume Approach Sampling

Low-Flow / Low Stress Sampling Other

(Specify): Low Flow

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	0952		13.37								
	1034	1.82			14.2	6.47	1548	0.76	17.49	-158.2	
	1037	1.95			14.3	6.47	1549	0.73	19.01	-158.3	
	1040	2.08			14.3	6.47	1549	0.71	16.05	-158.2	
	1043	2.21			14.3	6.47	1549	0.69	13.94	-157.9	
	1046	2.34			14.3	6.47	1548	0.67	12.65	-157.6	
	1049	2.47		17.80	14.3	6.47	1548	0.66	13.81	-157.4	

NOTES (continued)

Submersible Pump / Clear / Slight turbidity / no odor

ABBREVIATIONS

Cond. - Actual Conductivity
FT BTOC - Feet Below Top of Casing na - Not Applicable
nm - Not Measured
ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units
Temp - Temperature
°C - Degrees Celcius

Third Quarter 2023

August 16, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 23070002

Dear Eric Staley:

TEKLAB, INC received 15 samples on 7/7/2023 4:44:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23070002
Report Date: 16-Aug-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	25
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23070002

Client Project: Ash Pond Monitoring Wells **Report Date:** 16-Aug-23

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 23070002

Client Project: Ash Pond Monitoring Wells
Report Date: 16-Aug-23

Qualifiers

- Unknown hydrocarbon
B - Analyte detected in associated Method Blank
C - RL shown is a Client Requested Quantitation Limit
E - Value above quantitation range
H - Holding times exceeded
I - Associated internal standard was outside method criteria
J - Analyte detected below quantitation limits
M - Manual Integration used to determine area response
ND - Not Detected at the Reporting Limit
R - RPD outside accepted recovery limits
S - Spike Recovery outside recovery limits
T - TIC(Tentatively identified compound)
X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 23070002
Client Project: Ash Pond Monitoring Wells
Report Date: 16-Aug-23

Cooler Receipt Temp: 5.2 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23070002
Report Date: 16-Aug-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power
Work Order: 23070002
Client Project: Ash Pond Monitoring Wells
Report Date: 16-Aug-23
Lab ID: 23070002-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 07/06/2023 12:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	07/06/2023 12:23	R332756
Depth to water	*	-5.00		**8.29**	ft	1	07/06/2023 12:23	R332756
Depth to water from measuring point	*	0		**10.99**	ft	1	07/06/2023 12:23	R332756
Elevation of groundwater surface	*	0		**528.51**	ft	1	07/06/2023 12:23	R332756
Measuring Point Elevation	*	0		**539.50**	ft	1	07/06/2023 12:23	R332756
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	07/06/2023 12:23	R332756
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.3**	NTU	1	07/06/2023 12:23	R332756
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.5**	°F	1	07/06/2023 12:23	R332756
SW-846 9040B								
pH, Field	*	1.00		**7.13**		1	07/06/2023 12:23	R332756
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**437**	µmhos/cm @25C	1	07/06/2023 12:23	R332756
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**290**	mg/L	2.5	07/07/2023 15:00	R331380
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**22**	mg/L	1	07/24/2023 14:05	R333047
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.27**	mg/L	1	07/11/2023 12:53	R331398
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**28**	mg/L	1	07/24/2023 14:06	R333070
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.106**	mg/L	1	07/11/2023 18:26	208261
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/11/2023 18:26	208261
Boron	NELAP	0.0200		**0.0595**	mg/L	1	07/12/2023 13:56	208261
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/11/2023 18:26	208261
Calcium	NELAP	0.100	B	**52.8**	mg/L	1	07/11/2023 18:26	208261
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/11/2023 18:26	208261
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/11/2023 18:26	208261
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	07/11/2023 18:26	208261
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/11/2023 18:26	208261
Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/12/2023 2:05	208261
Arsenic	NELAP	0.0010		**0.0831**	mg/L	5	07/12/2023 2:05	208261
Lithium	*	0.0030		**< 0.0030**	mg/L	5	07/17/2023 11:48	208261
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/12/2023 2:05	208261
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/12/2023 2:05	208261
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/11/2023 15:26	208286
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	07/24/2023 15:18	R335080

Client: City Water, Light & Power
Work Order: 23070002
Client Project: Ash Pond Monitoring Wells
Report Date: 16-Aug-23
Lab ID: 23070002-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 07/06/2023 12:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		**See Attached**	pci/L	1	07/24/2023 15:18	R335080

Client: City Water, Light & Power
Work Order: 23070002
Client Project: Ash Pond Monitoring Wells
Report Date: 16-Aug-23
Lab ID: 23070002-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 07/07/2023 12:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	07/07/2023 12:31	R332756
Depth to water	*	-5.00		**6.07**	ft	1	07/07/2023 12:31	R332756
Depth to water from measuring point	*	0		**8.57**	ft	1	07/07/2023 12:31	R332756
Elevation of groundwater surface	*	0		**527.53**	ft	1	07/07/2023 12:31	R332756
Measuring Point Elevation	*	0		**536.10**	ft	1	07/07/2023 12:31	R332756
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	07/07/2023 12:31	R332756
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.3**	NTU	1	07/07/2023 12:31	R332756
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.3**	°F	1	07/07/2023 12:31	R332756
SW-846 9040B								
pH, Field	*	1.00		**6.40**		1	07/07/2023 12:31	R332756
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1390**	µmhos/cm @25C	1	07/07/2023 12:31	R332756
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1600**	mg/L	2.5	07/11/2023 10:29	R331470
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**795**	mg/L	20	07/24/2023 14:39	R333047
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.20**	mg/L	1	07/11/2023 12:58	R331398
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**54**	mg/L	2	07/26/2023 19:46	R333204
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0719**	mg/L	1	07/11/2023 18:30	208261
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/11/2023 18:30	208261
Boron	NELAP	0.0200		**3.73**	mg/L	1	07/12/2023 20:40	208261
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/11/2023 18:30	208261
Calcium	NELAP	0.100	B	**244**	mg/L	1	07/11/2023 18:30	208261
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/11/2023 18:30	208261
Cobalt	NELAP	0.0050		**0.0085**	mg/L	1	07/11/2023 18:30	208261
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	07/11/2023 18:30	208261
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/11/2023 18:30	208261
Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/12/2023 3:13	208261
Arsenic	NELAP	0.0010		**0.0020**	mg/L	5	07/12/2023 3:13	208261
Lithium	*	0.0030		**0.0063**	mg/L	5	07/17/2023 11:58	208261
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/12/2023 3:13	208261
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/12/2023 3:13	208261
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/11/2023 15:31	208286
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	07/24/2023 15:18	R335080
Radium-228	*	0		**See Attached**	pci/L	1	07/24/2023 15:18	R335080

Client: City Water, Light & Power **Work Order:** 23070002

Client Project: Ash Pond Monitoring Wells **Report Date:** 16-Aug-23

Lab ID: 23070002-004 **Client Sample ID:** AP-3

Matrix: GROUNDWATER **Collection Date:** 07/07/2023 13:16

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	07/07/2023 13:16	R332756
Depth to water	*	-5.00		**9.01**	ft	1	07/07/2023 13:16	R332756
Depth to water from measuring point	*	0		**10.71**	ft	1	07/07/2023 13:16	R332756
Elevation of groundwater surface	*	0		**524.69**	ft	1	07/07/2023 13:16	R332756
Measuring Point Elevation	*	0		**535.40**	ft	1	07/07/2023 13:16	R332756
Measuring Point Height Above Land Surface	*	0		**1.70**	ft	1	07/07/2023 13:16	R332756
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.2**	NTU	1	07/07/2023 13:16	R332756
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.5**	°F	1	07/07/2023 13:16	R332756
SW-846 9040B								
pH, Field	*	1.00		**6.53**		1	07/07/2023 13:16	R332756
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1230**	µmhos/cm @25C	1	07/07/2023 13:16	R332756
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**990**	mg/L	2.5	07/11/2023 10:29	R331470
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**467**	mg/L	10	07/24/2023 14:48	R333047
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.21**	mg/L	1	07/11/2023 13:00	R331398
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**51**	mg/L	2	07/24/2023 14:43	R333070
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0993**	mg/L	1	07/11/2023 18:31	208261
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/11/2023 18:31	208261
Boron	NELAP	0.200		**14.0**	mg/L	10	07/12/2023 20:39	208261
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/11/2023 18:31	208261
Calcium	NELAP	0.100	B	**189**	mg/L	1	07/11/2023 18:31	208261
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/11/2023 18:31	208261
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/11/2023 18:31	208261
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	07/11/2023 18:31	208261
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/11/2023 18:31	208261
Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/12/2023 3:18	208261
Arsenic	NELAP	0.0010		**0.0109**	mg/L	5	07/12/2023 3:18	208261
Lithium	*	0.0030		**0.0063**	mg/L	5	07/17/2023 12:03	208261
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/12/2023 3:18	208261
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/12/2023 3:18	208261
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/11/2023 15:33	208286
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	07/24/2023 15:18	R335080
Radium-228	*	0		**See Attached**	pci/L	1	07/24/2023 15:18	R335080

Client: City Water, Light & Power
Work Order: 23070002
Client Project: Ash Pond Monitoring Wells
Report Date: 16-Aug-23
Lab ID: 23070002-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 07/07/2023 12:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	07/07/2023 12:23	R332756
Depth to water	*	-5.00		**8.66**	ft	1	07/07/2023 12:23	R332756
Depth to water from measuring point	*	0		**11.32**	ft	1	07/07/2023 12:23	R332756
Elevation of groundwater surface	*	0		**527.70**	ft	1	07/07/2023 12:23	R332756
Measuring Point Elevation	*	0		**539.02**	ft	1	07/07/2023 12:23	R332756
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	07/07/2023 12:23	R332756
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**11**	NTU	1	07/07/2023 12:23	R332756
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.2**	°F	1	07/07/2023 12:23	R332756
SW-846 9040B								
pH, Field	*	1.00		**7.28**		1	07/07/2023 12:23	R332756
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**586**	µmhos/cm @25C	1	07/07/2023 12:23	R332756
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**300**	mg/L	2.5	07/11/2023 10:30	R331470
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**20**	mg/L	1	07/24/2023 15:28	R333047
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.34**	mg/L	1	07/11/2023 13:09	R331398
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**39**	mg/L	1	07/24/2023 15:28	R333070
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.106**	mg/L	1	07/11/2023 18:49	208261
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/11/2023 18:49	208261
Boron	NELAP	0.0200		**0.141**	mg/L	1	07/15/2023 16:25	208261
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/11/2023 18:49	208261
Calcium	NELAP	0.100	B	**49.6**	mg/L	1	07/11/2023 18:49	208261
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/11/2023 18:49	208261
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/11/2023 18:49	208261
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	07/11/2023 18:49	208261
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/11/2023 18:49	208261
Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/12/2023 3:35	208261
Arsenic	NELAP	0.0010		**0.0412**	mg/L	5	07/12/2023 3:35	208261
Lithium	*	0.0030		**0.0047**	mg/L	5	07/17/2023 12:46	208261
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/12/2023 3:35	208261
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/12/2023 3:35	208261
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/11/2023 15:51	208286
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	07/25/2023 15:30	R335080
Radium-228	*	0		**See Attached**	pci/L	1	07/25/2023 15:30	R335080

Client: City Water, Light & Power
Work Order: 23070002
Client Project: Ash Pond Monitoring Wells
Report Date: 16-Aug-23
Lab ID: 23070002-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 07/07/2023 10:39

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	07/07/2023 10:39	R332756
Depth to water	*	-5.00		**3.84**	ft	1	07/07/2023 10:39	R332756
Depth to water from measuring point	*	0		**6.74**	ft	1	07/07/2023 10:39	R332756
Elevation of groundwater surface	*	0		**530.46**	ft	1	07/07/2023 10:39	R332756
Measuring Point Elevation	*	0		**537.20**	ft	1	07/07/2023 10:39	R332756
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	07/07/2023 10:39	R332756
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.6**	NTU	1	07/07/2023 10:39	R332756
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.8**	°F	1	07/07/2023 10:39	R332756
SW-846 9040B								
pH, Field	*	1.00		**6.75**		1	07/07/2023 10:39	R332756
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**906**	µmhos/cm @25C	1	07/07/2023 10:39	R332756
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**555**	mg/L	2.5	07/11/2023 10:52	R331470
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	07/24/2023 15:36	R333047
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.29**	mg/L	1	07/11/2023 13:18	R331398
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**25**	mg/L	1	07/24/2023 15:36	R333070
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.378**	mg/L	1	07/11/2023 18:50	208261
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/11/2023 18:50	208261
Boron	NELAP	0.0200		**0.0932**	mg/L	1	07/15/2023 16:27	208261
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/11/2023 18:50	208261
Calcium	NELAP	0.100	B	**107**	mg/L	1	07/11/2023 18:50	208261
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/11/2023 18:50	208261
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/11/2023 18:50	208261
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	07/11/2023 18:50	208261
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/11/2023 18:50	208261
Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/12/2023 4:20	208261
Arsenic	NELAP	0.0010		**0.0513**	mg/L	5	07/12/2023 4:20	208261
Lithium	*	0.0030		**0.0074**	mg/L	5	07/17/2023 12:51	208261
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/12/2023 4:20	208261
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/12/2023 4:20	208261
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/11/2023 15:54	208286
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	07/25/2023 15:30	R335080
Radium-228	*	0		**See Attached**	pci/L	1	07/25/2023 15:30	R335080

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23070002
Report Date: 16-Aug-23

Carrier: Tracy Carroll

Received By: ANC

Completed by: Allison Colin
On: 10-Jul-23

Reviewed by: Ellie Hopkins
On: 10-Jul-23

Pages to follow: Chain of custody 3 Extra pages included 42

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 5.2
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #90719. - acolin - 7/10/2023 9:09:38 AM

Additional nitric acid (90404) was needed in AP2 2L, AP3 2L, AP4 2L, AP8 2L, AP9 2L, AP10 2L, AP12 250 & 2L upon arrival at the laboratory. - acolin - 7/10/2023 9:09:41 AM

Samples collected on 7/7/23 were delivered to the laboratory on 7/7/23 at 1644 (on ice - 5.2C - LTG#1). pH strip #90719 - ERH 7/10/23

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23070002

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 5.2 °C GTG S
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: pH-9719.Cert 7-6-23.

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
JCarroll

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity								
23070002-001	RW-3	7/6/23 1223	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
002	AP-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
005	AP-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
007	AP-6	7/6/23 1330	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓								

Relinquished By	Date/Time	Received By	Date/Time
Jeremy Carroll	7/6/23 1703		7-6-23 1730

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

7-6-23

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23070002

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 5.2 °C

Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY #1

LAB NOTES: PH 90719

2L 2L 2L 2L 2L 2L 250+2L

Added HNO3(90404) to AP2, AP3, AP4, AP8, AP9, AP10, AP12

ANR 7/10/23

Client Comments:

*elevations, pH, conductivity, temperature

**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo

Quarterly monitoring

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER

Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

Justin Colp TCarroll

RESULTS REQUESTED

☑ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23070002-001	RW-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	AP-1	7/7/23 1108	Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	AP-2	1231	Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	AP-3	1316	Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	AP-4	7-7-23 1142	Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	AP-5	7-7-23 1312	Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	AP-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	AP-7	7-7-23 1223	Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AP-8	7/7/23 1039	Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AP-9	7-7-23 1240	Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	AP-10	7/7/23 1147	Groundwater	1	2								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
Teresa Carroll	7/7/23 1644		7/7/23 1644

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 23070002

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Gilp TCarroll

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23070002-012	AP-11	7-7-23 / 1434	Groundwater	1	2								✓	✓	✓	✓	✓	✓
013	AP-12	" / 1416	Groundwater	1	2								✓	✓	✓	✓	✓	✓
014	AP-13	" / 1347	Groundwater	1	2								✓	✓	✓	✓	✓	✓
015	AP-14	" / 1121	Groundwater	1	2								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carroll	7/7/23 1644	Allison Lee	7/7 1644

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

August 15, 2023

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 23070002

Dear Shelly Hennessy:

Order No.: 23070747

Summit Environmental Technologies, Inc. received 15 sample(s) on 7/12/2023 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **23070747**
Date: **8/15/2023**

CLIENT: TEKLAB Inc,
Project: 23070002

WorkOrder Narrative:
23070747: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

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Qualifiers and Acronyms

WO#: **23070747**
Date: **8/15/2023**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **23070747**

15-Aug-23

CLIENT: TEKLAB Inc,
Project: 23070002

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
23070747-001	23070002-001		7/6/2023 12:23:00 PM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-002	23070002-002		7/7/2023 11:08:00 AM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-003	23070002-003		7/7/2023 12:31:00 PM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-004	23070002-004		7/7/2023 1:16:00 PM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-005	23070002-005		7/7/2023 11:42:00 AM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-006	23070002-006		7/7/2023 1:12:00 PM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-007	23070002-007		7/6/2023 1:30:00 PM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-008	23070002-008		7/7/2023 12:23:00 PM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-009	23070002-009		7/7/2023 10:39:00 AM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-010	23070002-010		7/7/2023 12:40:00 PM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-011	23070002-011		7/7/2023 11:47:00 AM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-012	23070002-012		7/7/2023 2:34:00 PM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-013	23070002-013		7/7/2023 2:16:00 PM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-014	23070002-014		7/7/2023 1:47:00 PM	7/12/2023 12:00:00 PM	Non-Potable Water
23070747-015	23070002-015		7/7/2023 11:21:00 AM	7/12/2023 12:00:00 PM	Non-Potable Water

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DATES REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23070747-001A	23070002-001	7/6/2023 12:23:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		7/17/2023 2:35:11 PM	7/25/2023 9:25:00 AM
				Radium-228 (EPA 904.0)		7/17/2023 2:35:11 PM	7/24/2023 3:18:00 PM
23070747-002A	23070002-002	7/7/2023 11:08:00 AM		Radium-226 (EPA 903.0)		7/17/2023 2:35:11 PM	7/25/2023 9:25:00 AM
				Radium-228 (EPA 904.0)		7/17/2023 2:35:11 PM	7/24/2023 3:18:00 PM
23070747-003A	23070002-003	7/7/2023 12:31:00 PM		Radium-226 (EPA 903.0)		7/17/2023 2:35:11 PM	7/25/2023 9:25:00 AM
				Radium-228 (EPA 904.0)		7/17/2023 2:35:11 PM	7/24/2023 3:18:00 PM
23070747-004A	23070002-004	7/7/2023 1:16:00 PM		Radium-226 (EPA 903.0)		7/17/2023 2:35:11 PM	7/25/2023 9:25:00 AM
				Radium-228 (EPA 904.0)		7/17/2023 2:35:11 PM	7/24/2023 3:18:00 PM
23070747-005A	23070002-005	7/7/2023 11:42:00 AM		Radium-226 (EPA 903.0)		7/17/2023 2:35:11 PM	7/25/2023 9:25:00 AM
				Radium-228 (EPA 904.0)		7/17/2023 2:35:11 PM	7/24/2023 3:18:00 PM
23070747-006A	23070002-006	7/7/2023 1:12:00 PM		Radium-226 (EPA 903.0)		7/21/2023 11:56:00 AM	7/27/2023 10:01:00 AM
				Radium-228 (EPA 904.0)		7/21/2023 11:56:00 AM	7/26/2023 4:09:00 PM
23070747-007A	23070002-007	7/6/2023 1:30:00 PM		Radium-226 (EPA 903.0)		7/19/2023 2:03:37 PM	7/26/2023 10:02:00 AM
				Radium-228 (EPA 904.0)		7/19/2023 2:03:37 PM	7/25/2023 3:30:00 PM
23070747-008A	23070002-008	7/7/2023 12:23:00 PM		Radium-226 (EPA 903.0)		7/19/2023 2:03:37 PM	7/26/2023 10:02:00 AM
				Radium-228 (EPA 904.0)		7/19/2023 2:03:37 PM	7/25/2023 3:30:00 PM
23070747-009A	23070002-009	7/7/2023 10:39:00 AM		Radium-226 (EPA 903.0)		7/19/2023 2:03:37 PM	7/26/2023 10:02:00 AM
				Radium-228 (EPA 904.0)		7/19/2023 2:03:37 PM	7/25/2023 3:30:00 PM
23070747-010A	23070002-010	7/7/2023 12:40:00 PM		Radium-226 (EPA 903.0)		7/19/2023 2:03:37 PM	7/26/2023 10:02:00 AM
				Radium-228 (EPA 904.0)		7/19/2023 2:03:37 PM	7/25/2023 3:30:00 PM
23070747-011A	23070002-011	7/7/2023 11:47:00 AM		Radium-226 (EPA 903.0)		7/19/2023 2:03:37 PM	7/26/2023 10:02:00 AM
				Radium-228 (EPA 904.0)		7/19/2023 2:03:37 PM	7/25/2023 3:30:00 PM
23070747-012A	23070002-012	7/7/2023 2:34:00 PM		Radium-226 (EPA 903.0)		7/19/2023 2:03:37 PM	7/26/2023 10:02:00 AM

Original

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DATES REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,

Project: 23070002

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23070747-012A	23070002-012	7/7/2023 2:34:00 PM	Non-Potable Water	Radium-228 (EPA 904.0)		7/19/2023 2:03:37 PM	7/25/2023 3:30:00 PM
23070747-013A	23070002-013	7/7/2023 2:16:00 PM		Radium-226 (EPA 903.0)		7/19/2023 2:03:37 PM	7/26/2023 10:02:00 AM
				Radium-228 (EPA 904.0)		7/19/2023 2:03:37 PM	7/25/2023 3:30:00 PM
23070747-014A	23070002-014	7/7/2023 1:47:00 PM		Radium-226 (EPA 903.0)		7/19/2023 2:03:37 PM	7/26/2023 10:02:00 AM
				Radium-228 (EPA 904.0)		7/19/2023 2:03:37 PM	7/25/2023 3:30:00 PM
				Radium-228 (EPA 904.0)		8/10/2023 4:23:11 PM	8/14/2023 3:29:00 PM
				Radium-228 (EPA 904.0)		7/27/2023 11:50:00 AM	8/3/2023 4:04:00 PM
23070747-015A	23070002-015	7/7/2023 11:21:00 AM		Radium-226 (EPA 903.0)		7/19/2023 2:03:37 PM	7/26/2023 10:02:00 AM
				Radium-228 (EPA 904.0)		7/19/2023 2:03:37 PM	7/25/2023 3:30:00 PM

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Analytical Report

(consolidated)

WO#: **23070747**

Date Reported: **8/15/2023**

CLIENT: TEKLAB Inc,
Collection Date: 7/6/2023 12:23:00 PM
Project: 23070002
Lab ID: 23070747-001
Matrix: NON-POTABLE WATER
Client Sample ID: 23070002-001

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.06	1	7/25/2023 9:25:00 AM
Yield	1.00					1	7/25/2023 9:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.74	1	7/24/2023 3:18:00 PM
Yield	1.00					1	7/24/2023 3:18:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23070747**

Date Reported: **8/15/2023**

CLIENT: TEKLAB Inc,
Collection Date: 7/7/2023 12:31:00 PM
Project: 23070002
Lab ID: 23070747-003
Matrix: NON-POTABLE WATER
Client Sample ID: 23070002-003

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.09	1	7/25/2023 9:25:00 AM
Yield	1.00					1	7/25/2023 9:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.74	1	7/24/2023 3:18:00 PM
Yield	1.00					1	7/24/2023 3:18:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23070747**

Date Reported: **8/15/2023**

CLIENT: TEKLAB Inc,
Collection Date: 7/7/2023 1:16:00 PM
Project: 23070002
Lab ID: 23070747-004
Matrix: NON-POTABLE WATER
Client Sample ID: 23070002-004

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.05	1	7/25/2023 9:25:00 AM
Yield	1.00					1	7/25/2023 9:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.87	1	7/24/2023 3:18:00 PM
Yield	1.00					1	7/24/2023 3:18:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23070747**

Date Reported: **8/15/2023**

CLIENT: TEKLAB Inc,
Project: 23070002
Lab ID: 23070747-008
Client Sample ID: 23070002-008

Collection Date: 7/7/2023 12:23:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.06	1	7/26/2023 10:02:00 AM
Yield	1.00					1	7/26/2023 10:02:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.53	1	7/25/2023 3:30:00 PM
Yield	0.910					1	7/25/2023 3:30:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **23070747**

Date Reported: **8/15/2023**

CLIENT: TEKLAB Inc,
Collection Date: 7/7/2023 10:39:00 AM
Project: 23070002
Lab ID: 23070747-009
Matrix: NON-POTABLE WATER
Client Sample ID: 23070002-009

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.17	1	7/26/2023 10:02:00 AM
Yield	1.00					1	7/26/2023 10:02:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.54	1	7/25/2023 3:30:00 PM
Yield	1.00					1	7/25/2023 3:30:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

Summit Environmental Technologies, Inc.
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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **66938**

Sample ID: **MB-66938**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167890**
Client ID: **PBW**	Batch ID: **66938**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/24/2023**	SeqNo: **4506021**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.950			0	0						

Sample ID: **LCSD-66938**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167890**
Client ID: **LCSS02**	Batch ID: **66938**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/24/2023**	SeqNo: **4506023**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.74	1.00	5.000	0	94.8	70	130	3.440	31.8	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **RLC-66938**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167890**
Client ID: **BatchQC**	Batch ID: **66938**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/24/2023**	SeqNo: **4506025**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	78.0	50	150				
Yield	1.00			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **66938**

Sample ID: **RLCD-66938** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/17/2023** RunNo: **167890**
Client ID: **BatchQC** Batch ID: **66938** TestNo: **E904.0** **E903-904** Analysis Date: **7/24/2023** SeqNo: **4506026**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.02	1.00	1.000	0	102	50	150				
Yield	1.00			0	0						

Sample ID: **23070595-001AMS** SampType: **MS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/17/2023** RunNo: **167890**
Client ID: **BatchQC** Batch ID: **66938** TestNo: **E904.0** **E903-904** Analysis Date: **7/24/2023** SeqNo: **4506027**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.04	1.00	5.000	0	40.8	70	130				S
Yield	1.00			1.000	0						

Sample ID: **23070596-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/17/2023** RunNo: **167890**
Client ID: **BatchQC** Batch ID: **66938** TestNo: **E904.0** **E903-904** Analysis Date: **7/24/2023** SeqNo: **4506030**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	0.910			0	0			0.9500	4.30		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **66938**

Sample ID: **23070597-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/17/2023** RunNo: **167890**
Client ID: **BatchQC** Batch ID: **66938** TestNo: **E904.0** **E903-904** Analysis Date: **7/24/2023** SeqNo: **4506032**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **66938**

Sample ID: **MB-66938**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167894**
Client ID: **PBW**	Batch ID: **66938**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506087**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-66938**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167894**
Client ID: **LCSW**	Batch ID: **66938**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506088**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.00	1.00	5.000	0	100	70	130				

Sample ID: **LCSD-66938**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167894**
Client ID: **LCSS02**	Batch ID: **66938**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.16	1.00	5.000	0	103	70	130	5.000	3.15	20	

Sample ID: **RLC-66938**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167894**
Client ID: **BatchQC**	Batch ID: **66938**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **66938**

Sample ID: **RLC-66938**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167894**
Client ID: **BatchQC**	Batch ID: **66938**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.34	1.00	1.000	0	134	50	150				

Sample ID: **RLCD-66938**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167894**
Client ID: **BatchQC**	Batch ID: **66938**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506092**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.11	1.00	1.000	0	111	50	150				

Sample ID: **23070595-001AMS**	SampType: **MS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167894**
Client ID: **BatchQC**	Batch ID: **66938**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.35	1.00	5.000	0	87.0	70	130				

Sample ID: **23070596-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167894**
Client ID: **BatchQC**	Batch ID: **66938**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506096**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **66938**

Sample ID: **23070596-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167894**
Client ID: **BatchQC**	Batch ID: **66938**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506096**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Yield	1.00							1.000	0	0	

Sample ID: **23070597-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/17/2023**	RunNo: **167894**
Client ID: **BatchQC**	Batch ID: **66938**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506098**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67011**

Sample ID: **MB-67011**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167896**
Client ID: **PBW**	Batch ID: **67011**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506126**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-67011**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167896**
Client ID: **LCSW**	Batch ID: **67011**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506127**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.58	1.00	5.000	0	71.6	70	130				
Yield	1.00			0	0						

Sample ID: **RLCD-67011**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167896**
Client ID: **BatchQC**	Batch ID: **67011**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/25/2023**	SeqNo: **4506131**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	78.0	50	150				
Yield	1.00			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67011**

Sample ID: **23071031-001AMS** SampType: **MS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/19/2023** RunNo: **167896**
Client ID: **BatchQC** Batch ID: **67011** TestNo: **E904.0** **E903-904** Analysis Date: **7/25/2023** SeqNo: **4506132**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.64	1.00	5.000	0	52.8	70	130				S
Yield	1.00			1.000	0						

Sample ID: **23071032-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/19/2023** RunNo: **167896**
Client ID: **BatchQC** Batch ID: **67011** TestNo: **E904.0** **E903-904** Analysis Date: **7/25/2023** SeqNo: **4506135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			0.9100	9.42		

Sample ID: **23070816-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/19/2023** RunNo: **167896**
Client ID: **BatchQC** Batch ID: **67011** TestNo: **E904.0** **E903-904** Analysis Date: **7/25/2023** SeqNo: **4506137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67011**

Sample ID: **MB-67011**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167898**
Client ID: **PBW**	Batch ID: **67011**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4506168**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-67011**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167898**
Client ID: **LCSW**	Batch ID: **67011**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4506169**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.50	1.00	5.000	0	90.0	70	130				

Sample ID: **LCSD-67011**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167898**
Client ID: **LCSS02**	Batch ID: **67011**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4506170**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.42	1.00	5.000	0	88.4	70	130	4.500	1.79	20	

Sample ID: **RLC-67011**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167898**
Client ID: **BatchQC**	Batch ID: **67011**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4506172**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67011**

Sample ID: **RLC-67011**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167898**
Client ID: **BatchQC**	Batch ID: **67011**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4506172**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.07	1.00	1.000	0	107	50	150				

Sample ID: **RLCD-67011**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167898**
Client ID: **BatchQC**	Batch ID: **67011**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4506173**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	91.0	50	150				

Sample ID: **23071031-001AMS**	SampType: **MS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167898**
Client ID: **BatchQC**	Batch ID: **67011**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4506174**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.43	1.00	5.000	0	88.6	70	130				

Sample ID: **23071032-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/19/2023**	RunNo: **167898**
Client ID: **BatchQC**	Batch ID: **67011**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4506177**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67011**

Sample ID: **23071032-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **7/19/2023** RunNo: **167898**
Client ID: **BatchQC** Batch ID: **67011** TestNo: **E903.0** **E903-904** Analysis Date: **7/26/2023** SeqNo: **4506177**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Yield	1.00							1.000	0	0	

Sample ID: **23070816-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **7/19/2023** RunNo: **167898**
Client ID: **BatchQC** Batch ID: **67011** TestNo: **E903.0** **E903-904** Analysis Date: **7/26/2023** SeqNo: **4506179**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67083**

Sample ID: **MB-67083**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/21/2023**	RunNo: **168035**
Client ID: **PBW**	Batch ID: **67083**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4510072**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-67083**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/21/2023**	RunNo: **168035**
Client ID: **LCSW**	Batch ID: **67083**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4510073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.91	1.00	5.000	0	78.2	70	130				
Yield	1.00			0	0						

Sample ID: **RLC-67083**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **7/21/2023**	RunNo: **168035**
Client ID: **BatchQC**	Batch ID: **67083**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/26/2023**	SeqNo: **4510076**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	76.0	50	150				
Yield	1.00			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67083**

Sample ID: **23071034-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **7/21/2023** RunNo: **168035**
Client ID: **BatchQC** Batch ID: **67083** TestNo: **E904.0** **E903-904** Analysis Date: **7/26/2023** SeqNo: **4510107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.31	1.00		0	0			2.560	10.3	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67083**

Sample ID: **MB-67083**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/21/2023**	RunNo: **168045**
Client ID: **PBW**	Batch ID: **67083**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/27/2023**	SeqNo: **4510502**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.990										

Sample ID: **LCSD-67083**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/21/2023**	RunNo: **168045**
Client ID: **LCSS02**	Batch ID: **67083**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/27/2023**	SeqNo: **4510504**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.56	1.00	5.000	0	111	70	130	6.720	18.9	20	

Sample ID: **RLC-67083**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/21/2023**	RunNo: **168045**
Client ID: **BatchQC**	Batch ID: **67083**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/27/2023**	SeqNo: **4510506**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	75.0	50	150				

Sample ID: **RLCD-67083**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/21/2023**	RunNo: **168045**
Client ID: **BatchQC**	Batch ID: **67083**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/27/2023**	SeqNo: **4510507**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67083**

Sample ID: **RLCD-67083**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/21/2023**	RunNo: **168045**
Client ID: **BatchQC**	Batch ID: **67083**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/27/2023**	SeqNo: **4510507**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.22	1.00	1.000	0	122	50	150				

Sample ID: **23071033-001AMS**	SampType: **MS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/21/2023**	RunNo: **168045**
Client ID: **BatchQC**	Batch ID: **67083**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/27/2023**	SeqNo: **4510508**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.44	1.00	5.000	0	109	70	130				

Sample ID: **23071096-002ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **7/21/2023**	RunNo: **168045**
Client ID: **BatchQC**	Batch ID: **67083**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/27/2023**	SeqNo: **4510518**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67719**

Sample ID: **23072069-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/10/2023** RunNo: **169062**
Client ID: **BatchQC** Batch ID: **67719** TestNo: **E904.0** **E903-904** Analysis Date: **8/14/2023** SeqNo: **4541097**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	
Yield	0.970			0	0			0.8900	8.60		

Sample ID: **23072069-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/10/2023** RunNo: **169062**
Client ID: **BatchQC** Batch ID: **67719** TestNo: **E904.0** **E903-904** Analysis Date: **8/14/2023** SeqNo: **4541099**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.04	1.00		0	0			1.340	25.2	30	
Yield	0.900			0	0			0.8700	3.39		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67719**

Sample ID: **MB-67719**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/10/2023**	RunNo: **169062**
Client ID: **PBW**	Batch ID: **67719**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/14/2023**	SeqNo: **4541078**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-67719**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/10/2023**	RunNo: **169062**
Client ID: **LCSW**	Batch ID: **67719**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/14/2023**	SeqNo: **4541079**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.61	1.00	5.000	0	72.2	70	130				
Yield	0.980			0	0						

Sample ID: **LCSD-67719**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/10/2023**	RunNo: **169062**
Client ID: **LCSS02**	Batch ID: **67719**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/14/2023**	SeqNo: **4541080**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.50	1.00	5.000	0	70.0	70	130	3.610	3.09	20	
Yield	1.00			0	0			0.9800	2.02		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23070747**

15-Aug-23

Client: TEKLAB Inc,
Project: 23070002 **BatchID:** **67719**

Sample ID: **RLC-67719**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/10/2023**	RunNo: **169062**
Client ID: **BatchQC**	Batch ID: **67719**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/14/2023**	SeqNo: **4541082**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	64.0	50	150				
Yield	1.00			0	0						

Sample ID: **23080067-001AMS**	SampType: **MS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/10/2023**	RunNo: **169062**
Client ID: **BatchQC**	Batch ID: **67719**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/14/2023**	SeqNo: **4541084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.78	1.00	5.000	0	116	70	130				
Yield	1.00			1.000	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Pg ___ of ___ 23070747

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium (226, 228, ~~and combined~~) by method EPA903.0/904.0
on standard TAT. Collected in IL SAN 7/10/23

Project# 23070002

Contact: Shelly Hennessy Email: shennessy@teklabinc.com
Requested Due Date: NTAT Billing/PO: 34677 Phone: 618-344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	com=	diff								
	23070002-001	7/6/23 12.23	HNO3	Groundwater	✔	✔	35		1							
	23070002-002	7/7/23 11.08	HNO3	Groundwater	✔	✔	16		1							
	23070002-003	7/7/23 12.31	HNO3	Groundwater	✔	✔	23		1							
	23070002-004	7/7/23 13.16	HNO3	Groundwater	✔	✔	34		1							
	23070002-005	7/7/23 11.42	HNO3	Groundwater	✔	✔	31		1							
	23070002-006	7/7/23 13.12	HNO3	Groundwater	✔	✔	36		1							
	23070002-007	7/6/23 13.30	HNO3	Groundwater	✔	✔	23		1							
	23070002-008	7/7/23 12.23	HNO3	Groundwater	✔	✔	OK		1							
	23070002-009	7/7/23 10.39	HNO3	Groundwater	✔	✔	36		1							
	23070002-010	7/7/23 12.40	HNO3	Groundwater	✔	✔	37		1							
	23070002-011	7/7/23 11.47	HNO3	Groundwater	✔	✔	36		1							

*Relinquished By	Date/Time	Received By	Date/Time
Allison Cole (fedex)	7/10/23	C.Cr	7/12/23 1200
		TWO DOT received, no COA	

23.4+0.0=
23.4
fedex
cooler

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights. Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA
3/2/2016

Pg ___ of 23070747

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium (226, 228, and combined) by method EPA903.0/904.0
on standard TAT.

Project# 23070002

Contact: Shelly Hennessy Email: shennessy@teklabinc.com
Requested Due Date: NTAT Billing/PO: 34677 Phone: 618-344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	CDM PH									
	23070002-012	7/7/23 14.34	HNO3	Groundwater	✔	✔	13	1								
	23070002-013	7/7/23 14.16	HNO3	Groundwater	✔	✔	32	1								
	23070002-014	7/7/23 13.47	HNO3	Groundwater	✔	✔	33	1								
	23070002-015	7/7/23 11.21	HNO3	Groundwater	✔	✔	26	1								
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												

*Relinquished By	Date/Time	Received By	Date/Time
Allison Colin (Fedex)	7/10/23		

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA
3/2/2016

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **23070747** RcptNo: **1**

Logged by:	**Christina N. Gemma**	**7/12/2023 12:00:00 PM**	C. Gemma
Completed By:	**Jacqueline Rasile**	**7/13/2023 1:07:43 AM**	
Reviewed By:	**Jennifer Woolf**	**7/13/2023 6:52:05 PM**	Jennifer Woolf

Chain of Custody

1.	Were seals intact?	Yes ☑	No ☐	Not Present ☐
2.	Is Chain of Custody complete?	Yes ☐	No ☑	Not Present ☐
3.	How was the sample delivered?	FedEx		

Log In

4.	Coolers are present?	Yes ☑	No ☐	NA ☐
5.	Was an attempt made to cool the samples?	Yes ☐	No ☐	NA ☑
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☐	NA ☑
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

confirmed with clinet second bottle labled -001 is the -004 bottle
Two 001 bottles rec'd, no 004 bottle.

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	23.4	Good	Not Present			

August 03, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Landfill Monitoring Wells **WorkOrder:** 23070001

Dear Eric Staley:

TEKLAB, INC received 12 samples on 7/7/2023 4:44:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 23070001
Report Date: 03-Aug-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	19
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23070001

Client Project: Landfill Monitoring Wells **Report Date:** 03-Aug-23

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 23070001

Client Project: Landfill Monitoring Wells
Report Date: 03-Aug-23

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 23070001
Report Date: 03-Aug-23

Cooler Receipt Temp: 6.2 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 23070001

Client Project: Landfill Monitoring Wells

Report Date: 03-Aug-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 23070001

Client Project: Landfill Monitoring Wells **Report Date:** 03-Aug-23

Lab ID: 23070001-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 07/05/2023 12:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	07/05/2023 12:23	R331691
Depth to water	*	-5.00		**11.94**	ft	1	07/05/2023 12:23	R331691
Depth to water from measuring point	*	0		**14.69**	ft	1	07/05/2023 12:23	R331691
Elevation of groundwater surface	*	0		**540.91**	ft	1	07/05/2023 12:23	R331691
Measuring Point Elevation	*	0		**555.60**	ft	1	07/05/2023 12:23	R331691
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.0**	°F	1	07/05/2023 12:23	R331691
SW-846 9040B								
pH, Field	*	1.00		**6.51**		1	07/05/2023 12:23	R331691
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1310**	µmhos/cm @25C	1	07/05/2023 12:23	R331691
EPA 600 350.1 (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.83**	mg/L	1	07/06/2023 12:59	R331208
EPA 600 353.2 R2.0 (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**0.073**	mg/L	1	07/06/2023 13:09	R331256
STANDARD METHODS 2540 C (DISSOLVED) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1160**	mg/L	2.5	07/06/2023 13:37	R331272
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	07/11/2023 16:35	208250
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	100		**354**	mg/L	10	07/14/2023 19:48	R331653
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	4		**39**	mg/L	1	07/14/2023 19:30	R331669
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0	S	**8150**	µg/L	1	07/07/2023 15:30	207897
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/07/2023 15:30	207897
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	07/07/2023 15:30	207897
Magnesium	NELAP	0.050	S	**80.6**	mg/L	1	07/07/2023 15:30	207897
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	07/07/2023 15:30	207897
Matrix spike control limits are not applicable due to high sample/spike ratio.								
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**149**	µg/L	5	07/11/2023 0:37	207897
Lead	NELAP	1.0		**< 1.0**	µg/L	5	07/11/2023 0:37	207897
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/07/2023 12:54	208168

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 23070001
Report Date: 03-Aug-23

Carrier: Tracy Carroll

Received By: ANC

Completed by: Allison Colin
On: 05-Jul-23

Reviewed by: Ellie Hopkins
On: 10-Jul-23

Pages to follow: Chain of custody 4 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 6.2
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

Additional sodium hydroxide (81662) was needed in all Cyanide containers (G120, G121, AW-1) upon arrival at the laboratory. - acolin - 7/5/2023 4:44:06 PM

Samples collected on 7/5/23 were delivered to the laboratory on 7/5/23 at 1632 (on ice - 6.2C - LTG#5). pH strip #90719/79929 - ANC/ERH 7/7/23

Additional sodium hydroxide (81662) was needed in G113 and G122 upon arrival at the laboratory. CET 7/6/23

Samples collected on 7/6/23 were delivered to the laboratory on 7/6/23 at 1703 (on ice - 5.2C - LTG#5). pH strip #90719/79929 - CET/ERH 7/7/23

Samples collected on 7/7/23 were delivered to the laboratory on 7/7/23 at 1644 (on ice - 13.2C - LTG#5). pH strip #90719/79929 - CET/ERH 7/7/23

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23070001

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 6.2 °C
Preserved in: ☑ LAB ☐ FIELD FOR LAB USE ONLY #5
LAB NOTES:
PH 07/19/7929 Added NaOH(8166) to All Cyanide Samples

Client Comments:
Quarters 1, 3, & 4
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn

PROJECT NAME/NUMBER: Landfill Monitoring Wells
SAMPLE COLLECTOR'S NAME: T Carroll

RESULTS REQUESTED: ☑ Standard ☐ 1-2 Day (100% Surcharge) ☐ Other ☐ 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Thallium (T)	As B (T)	Magnesium (T)	Boron (T)	Ammonia (T)
23070001-001	R101		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓						
002	G110		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X					
003	R111		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓		X				
004	G112		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X					
005	G113		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X					
006	G120	7/5/23 1311	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X		X			
007	G121	7/5/23 1402	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X			X	X	
008	G122		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓						
009	AW-1	7/5/23 1223	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓						
010	AW-2		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓						
011	RW-3		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓						

Relinquished By	Date/Time	Received By	Date/Time
Tony Carroll	7/5/23 1632	[signature]	7/5/23 1632

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23070001

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 5.2 °C CTR: 5

Preserved in: ☑ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES: PW907/9/7929. AJLL NaOH 01662) to G113 9/12 6/22. CAS 7-6-23.

Client Comments:

Quarters 1, 3, & 4

*elevations, pH, conductivity, temperature

**As B Cd Cr Pb Mg Hg Zn

PROJECT NAME/NUMBER

Landfill Monitoring Wells

SAMPLE COLLECTOR'S NAME

TCarroll JJCole

RESULTS REQUESTED

☑ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Thallium (T)	As B (T)	Magnesium (T)	Boron (T)	Ammonia (T)
23070001-001	R101		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓						
002	G110	7/6/23 1138	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X					
003	R111	7.6.23/ 1344	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓		X				
004	G112	7.6.23/ 1148	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X					
005	G113	7.6.23/ 1410	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X					
006	G120		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X		X			
007	G121		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X			X	X	
008	G122	7.6.23/ 1449	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓						
009	AW-1		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓						
010	AW-2	7/6/23 1409	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓						
011	RW-3	7/6/23 1223	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓						

Relinquished By	Date/Time	Received By	Date/Time
Jenny Carroll	7/6/23 1703		7-6-23 1703

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CAS 7-6-23

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 23070001

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
Quarters 1, 3, & 4
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells

SAMPLE COLLECTOR'S NAME
TCarroll / JCole

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)
23070001-012	DUPLICATE	7/6/23 1409	Groundwater	1	1	1	1							✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carroll	7/6/23 1703		7-6-23 1703

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23070001

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 13.2 °C
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY #5
LAB NOTES: pm90 7A/7A. CRO 7-7-23

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
Quarters 1, 3, & 4
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Thallium (T)	As B (T)	Magnesium (T)	Boron (T)	Ammonia (T)
23070001-001	R101	7-7-23 1054	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓					
002	G110		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X				
003	R111		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓		X			
004	G112		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X				
005	G113		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X				
006	G120		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X		X		
007	G121		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓	X			X	X
008	G122		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓					
009	AW-1		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓					
010	AW-2		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓					
011	RW-3		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓					

Relinquished By	Date/Time	Received By	Date/Time
Jenny Carroll	7/7/23 1644	Allison Coleman	7/7/23 1644

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CRO 7-7-23

Fourth Quarter 2023

November 27, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 23101164

Dear Eric Staley:

TEKLAB, INC received 15 samples on 10/25/2023 5:15:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23101164
Report Date: 27-Nov-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	22
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23101164

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Nov-23

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power

Work Order: 23101164

Client Project: Ash Pond Monitoring Wells

Report Date: 27-Nov-23

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 23101164
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Nov-23

Cooler Receipt Temp: 4.8 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & Radium-228 analyses were performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
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Kansas City

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Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23101164
Report Date: 27-Nov-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 23101164

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Nov-23

Lab ID: 23101164-001 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 10/25/2023 12:34

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	10/25/2023 12:34	R338505
Depth to water	*	-5.00		**9.09**	ft	1	10/25/2023 12:34	R338505
Depth to water from measuring point	*	0		**11.79**	ft	1	10/25/2023 12:34	R338505
Elevation of groundwater surface	*	0		**527.71**	ft	1	10/25/2023 12:34	R338505
Measuring Point Elevation	*	0		**539.50**	ft	1	10/25/2023 12:34	R338505
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	10/25/2023 12:34	R338505
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.6**	NTU	1	10/25/2023 12:34	R338505
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.3**	°F	1	10/25/2023 12:34	R338505
SW-846 9040B								
pH, Field	*	1.00		**7.31**		1	10/25/2023 12:34	R338505
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**632**	µmhos/cm @25C	1	10/25/2023 12:34	R338505
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**340**	mg/L	5	10/30/2023 11:49	R338538
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**16**	mg/L	1	10/27/2023 19:42	R338425
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.44**	mg/L	1	11/02/2023 14:55	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**31**	mg/L	1	10/27/2023 19:41	R338455
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.165**	mg/L	1	11/02/2023 10:47	213836
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/02/2023 10:47	213836
Boron	NELAP	0.0200		**0.117**	mg/L	1	11/02/2023 10:47	213836
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/02/2023 10:47	213836
Calcium	NELAP	0.100		**58.7**	mg/L	1	11/02/2023 10:47	213836
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 10:47	213836
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 10:47	213836
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/02/2023 10:47	213836
Lithium	NELAP	0.0050		**0.0147**	mg/L	1	11/02/2023 10:47	213836
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/02/2023 10:47	213836
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:03	213836
Arsenic	NELAP	0.0010		**0.740**	mg/L	5	11/02/2023 19:03	213836
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:03	213836
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/02/2023 19:03	213836
PQL recovered outside upper control limits for Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	10/31/2023 13:26	213968
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/10/2023 0:00	R339727
Radium-228	*	0		**See Attached**	pci/L	1	11/10/2023 0:00	R339727

Client: City Water, Light & Power
Work Order: 23101164
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Nov-23
Lab ID: 23101164-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 10/26/2023 13:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	10/26/2023 13:05	R338505
Depth to water	*	-5.00		**6.20**	ft	1	10/26/2023 13:05	R338505
Depth to water from measuring point	*	0		**8.70**	ft	1	10/26/2023 13:05	R338505
Elevation of groundwater surface	*	0		**527.40**	ft	1	10/26/2023 13:05	R338505
Measuring Point Elevation	*	0		**536.10**	ft	1	10/26/2023 13:05	R338505
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	10/26/2023 13:05	R338505
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**15**	NTU	1	10/26/2023 13:05	R338505
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.9**	°F	1	10/26/2023 13:05	R338505
SW-846 9040B								
pH, Field	*	1.00		**6.57**		1	10/26/2023 13:05	R338505
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1380**	µmhos/cm @25C	1	10/26/2023 13:05	R338505
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1020**	mg/L	1	10/31/2023 10:25	R338603
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**380**	mg/L	20	10/30/2023 13:50	R338498
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.27**	mg/L	1	11/02/2023 14:58	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**40**	mg/L	2	10/30/2023 13:44	R338509
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0716**	mg/L	1	10/31/2023 17:43	213879
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	10/31/2023 17:43	213879
Boron	NELAP	0.0200		**3.23**	mg/L	1	10/31/2023 17:43	213879
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	10/31/2023 17:43	213879
Calcium	NELAP	0.100		**204**	mg/L	1	10/31/2023 17:43	213879
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 17:43	213879
Cobalt	NELAP	0.0050		**0.0091**	mg/L	1	10/31/2023 17:43	213879
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	10/31/2023 17:43	213879
Lithium	NELAP	0.0050		**0.0056**	mg/L	1	10/31/2023 17:43	213879
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	10/31/2023 17:43	213879
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/01/2023 10:52	213879
Arsenic	NELAP	0.0010		**0.0020**	mg/L	5	11/01/2023 10:52	213879
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/01/2023 10:52	213879
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/01/2023 10:52	213879
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	10/31/2023 14:43	213968
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/10/2023 0:00	R339727
Radium-228	*	0		**See Attached**	pci/L	1	11/10/2023 0:00	R339727

Client: City Water, Light & Power **Work Order:** 23101164

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Nov-23

Lab ID: 23101164-004 **Client Sample ID:** AP-3

Matrix: GROUNDWATER **Collection Date:** 10/26/2023 13:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	10/26/2023 13:25	R338505
Depth to water	*	-5.00		**8.39**	ft	1	10/26/2023 13:25	R338505
Depth to water from measuring point	*	0		**10.09**	ft	1	10/26/2023 13:25	R338505
Elevation of groundwater surface	*	0		**525.31**	ft	1	10/26/2023 13:25	R338505
Measuring Point Elevation	*	0		**535.40**	ft	1	10/26/2023 13:25	R338505
Measuring Point Height Above Land Surface	*	0		**1.70**	ft	1	10/26/2023 13:25	R338505
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**11**	NTU	1	10/26/2023 13:25	R338505
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.8**	°F	1	10/26/2023 13:25	R338505
SW-846 9040B								
pH, Field	*	1.00		**6.69**		1	10/26/2023 13:25	R338505
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1290**	µmhos/cm @25C	1	10/26/2023 13:25	R338505
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1080**	mg/L	2.5	10/31/2023 10:26	R338603
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**495**	mg/L	20	11/02/2023 12:38	R338709
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.25**	mg/L	1	11/02/2023 14:02	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	8	S	**57**	mg/L	2	10/30/2023 14:08	R338509
Matrix spike did not recover within control limits due to matrix interference.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.113**	mg/L	1	10/31/2023 17:46	213879
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	10/31/2023 17:46	213879
Boron	NELAP	0.0200		**15.2**	mg/L	1	10/31/2023 17:46	213879
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	10/31/2023 17:46	213879
Calcium	NELAP	0.100		**181**	mg/L	1	10/31/2023 17:46	213879
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 17:46	213879
Cobalt	NELAP	0.0050		**0.0051**	mg/L	1	10/31/2023 17:46	213879
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	10/31/2023 17:46	213879
Lithium	NELAP	0.0050		**0.0051**	mg/L	1	10/31/2023 17:46	213879
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	10/31/2023 17:46	213879
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/01/2023 10:58	213879
Arsenic	NELAP	0.0010		**0.0182**	mg/L	5	11/01/2023 10:58	213879
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/01/2023 10:58	213879
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/01/2023 10:58	213879
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	10/31/2023 14:45	213968
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/10/2023 0:00	R339727
Radium-228	*	0		**See Attached**	pci/L	1	11/10/2023 0:00	R339727

Client: City Water, Light & Power **Work Order:** 23101164

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Nov-23

Lab ID: 23101164-008 **Client Sample ID:** AP-7

Matrix: GROUNDWATER **Collection Date:** 10/26/2023 13:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	10/26/2023 13:58	R338505
Depth to water	*	-5.00		**9.79**	ft	1	10/26/2023 13:58	R338505
Depth to water from measuring point	*	0		**12.45**	ft	1	10/26/2023 13:58	R338505
Elevation of groundwater surface	*	0		**526.57**	ft	1	10/26/2023 13:58	R338505
Measuring Point Elevation	*	0		**539.02**	ft	1	10/26/2023 13:58	R338505
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	10/26/2023 13:58	R338505
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.8**	NTU	1	10/26/2023 13:58	R338505
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.1**	°F	1	10/26/2023 13:58	R338505
SW-846 9040B								
pH, Field	*	1.00		**7.15**		1	10/26/2023 13:58	R338505
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**478**	µmhos/cm @25C	1	10/26/2023 13:58	R338505
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**352**	mg/L	1	10/31/2023 12:06	R338603
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**15**	mg/L	1	10/30/2023 15:04	R338498
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.53**	mg/L	1	11/02/2023 13:57	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**60**	mg/L	2	11/01/2023 14:16	R338688
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.158**	mg/L	1	10/31/2023 18:23	213879
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	10/31/2023 18:23	213879
Boron	NELAP	0.0200		**0.331**	mg/L	1	10/31/2023 18:23	213879
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	10/31/2023 18:23	213879
Calcium	NELAP	0.100		**50.6**	mg/L	1	10/31/2023 18:23	213879
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 18:23	213879
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 18:23	213879
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	10/31/2023 18:23	213879
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 18:23	213879
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	10/31/2023 18:23	213879
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/01/2023 12:17	213879
Arsenic	NELAP	0.0010		**0.0750**	mg/L	5	11/01/2023 12:17	213879
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/01/2023 12:17	213879
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/01/2023 12:17	213879
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	10/31/2023 14:59	213968
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/10/2023 0:00	R339727
Radium-228	*	0		**See Attached**	pci/L	1	11/10/2023 0:00	R339727

Client: City Water, Light & Power
Work Order: 23101164
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Nov-23
Lab ID: 23101164-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 10/26/2023 9:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	10/26/2023 9:30	R338505
Depth to water	*	-5.00		**5.17**	ft	1	10/26/2023 9:30	R338505
Depth to water from measuring point	*	0		**8.07**	ft	1	10/26/2023 9:30	R338505
Elevation of groundwater surface	*	0		**529.13**	ft	1	10/26/2023 9:30	R338505
Measuring Point Elevation	*	0		**537.20**	ft	1	10/26/2023 9:30	R338505
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	10/26/2023 9:30	R338505
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.1**	NTU	1	10/26/2023 9:30	R338505
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.4**	°F	1	10/26/2023 9:30	R338505
SW-846 9040B								
pH, Field	*	1.00		**7.01**		1	10/26/2023 9:30	R338505
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**926**	µmhos/cm @25C	1	10/26/2023 9:30	R338505
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**430**	mg/L	2.5	10/31/2023 12:06	R338603
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	10/30/2023 15:06	R338498
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.31**	mg/L	1	11/02/2023 15:04	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**25**	mg/L	1	10/30/2023 15:07	R338509
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.374**	mg/L	1	10/31/2023 18:27	213879
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	10/31/2023 18:27	213879
Boron	NELAP	0.0200		**0.0896**	mg/L	1	10/31/2023 18:27	213879
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	10/31/2023 18:27	213879
Calcium	NELAP	0.100		**101**	mg/L	1	10/31/2023 18:27	213879
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 18:27	213879
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 18:27	213879
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	10/31/2023 18:27	213879
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 18:27	213879
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	10/31/2023 18:27	213879
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/01/2023 12:23	213879
Arsenic	NELAP	0.0010		**0.0395**	mg/L	5	11/01/2023 12:23	213879
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/01/2023 12:23	213879
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/01/2023 12:23	213879
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	10/31/2023 15:01	213968
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/10/2023 0:00	R339727
Radium-228	*	0		**See Attached**	pci/L	1	11/10/2023 0:00	R339727

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 23101164
Report Date: 27-Nov-23

Carrier: Justin Colp
Received By: HAW

Completed by: Timothy W. Mathis
On: 26-Oct-23

Reviewed by: Ellie Hopkins
On: 27-Oct-23

Pages to follow: Chain of custody 3 Extra pages included 57

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	4.8	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.						
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑			
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑			
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐			
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑			

Any No responses must be detailed below or on the COC.

pH strip #90719 CET. - TMathis - 10/26/2023 12:47:39 PM

pH strip #90719. - amberdilallo - 10/27/2023 9:49:59 AM

Samples collected on 10/26/23 were delivered to the laboratory on 10/26/23 at 1707 (on ice - 2.6C - LTG1). - HW/ERH 10/27/23

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23101164

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 4.8 °C CTL
Preserved in: [ ] LAB [x] FIELD FOR LAB USE ONLY
LAB NOTES: pH 9079-485 10-26-23
*TE SM 11/6/23

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other ____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23101164-001	RW-3	10-25-23 / 1235* 1234*	Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	10-25-23 1715	[signature]	10/25/23 1715

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CTL 10-21-23

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23101164

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 2 cl °C
Preserved in: ☐ LAB ☒ FIELD FOR LAB USE ONLY
LAB NOTES: 9079 10/27/23
XTE SAH 11/6/23

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Gb

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23101164-001	RW-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	AP-1	10-26-23/ 1222	Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	AP-2	1305	Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	AP-3	* 133525	Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	AP-4	1406	Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	AP-5	1444	Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	AP-6	0909	Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	AP-7	10-26-23/ 1358	Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AP-8	10-26-23/ 0930	Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AP-9	10-26-23/ 1446	Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	AP-10	10-26-23/ 1243	Groundwater	1	2								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	10-26-23 17:07	Hannah NA	10/26/23 1707

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 23101164

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Gp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23101164-012	AP-11	10-26-23 / 1152	Groundwater	1	2								✔	✔	✔	✔	✔	✔
013	AP-12	1120	Groundwater	1	2								✔	✔	✔	✔	✔	✔
014	AP-13	1033	Groundwater	1	2								✔	✔	✔	✔	✔	✔
015	AP-14	1351	Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	10.26.23 17:05	[signature]	10/26/23 1707

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101164
Technician(s): JC, BG

Groundwater Sampling Summary
CWLP- 4Q 2023

			Weather				Well Condition				
WO Sample	**Well ID**	**Program/ Sample Type**	**Temp (°F)**	**Precipitation**	**Wind Direction**	**Sky**	**Well Pad**	**Casing**	**Protective Cover**	**Reference Mark/ ID**	**Well Locked**
001	RW-3	Groundwater Sample	70.0	None	S	Clear	Good	Good	Good	No	No
002	AP-1	Groundwater Sample	72.0	Light	S	Cloudy	Good	Good	Good	No	No
003	AP-2	Groundwater Sample	72.0	Light	S	Partly cloudy	Good	Good	Good	No	No
004	AP-3	Groundwater Sample	71.0	Light	S	Partly cloudy	Good	Good	Good	No	No
005	AP-4	Groundwater Sample	71.0	None	S	Partly cloudy	Good	Good	Good	Yes	No
006	AP-5	Groundwater Sample	71.0	Light	S	Partly cloudy	Good	Good	Good	Yes	No
007	AP-6	Groundwater Sample	66.0	None	S	Partly cloudy	Good	Good	Good	No	No
008	AP-7	Groundwater Sample	71.0	Light	S	Cloudy	Good	Good	Good	Yes	No
009	AP-8	Groundwater Sample	66.0	None	S	Partly cloudy	Good	Good	Good	Yes	No
010	AP-9	Groundwater Sample	71.0	Light	S	Cloudy	Good	Good	Good	Yes	No
011	AP-10	Groundwater Sample	72.0	Light	S	Partly cloudy	Good	Good	Good	No	No
012	AP-11	Groundwater Sample	71.0	None	S	Cloudy	Good	Good	Good	No	No
013	AP-12	Groundwater Sample	70.0	None	S	Partly cloudy	Good	Good	Good	No	No
014	AP-13	Groundwater Sample	67.0	None	S	Partly cloudy	Good	Good	Good	Yes	No
015	AP-14	Groundwater Sample	71.0	None	S	Partly cloudy	Good	Good	Good	No	No

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101164
Technician(s): JC, BG

Groundwater Sampling Summary
CWLP- 4Q 2023

		GW Level Measurement				Purge Activities							
WO Sample	**Well ID**	**Sampler Initials**	**Date/Time**	**DTW (ft)**	**DTB (ft)**	**Sampler Initials**	**Purge Date**			**Sampling Device**	**Well Diameter (in)**	**Actual Volume Purged (L)**	**Purge Rate (mL/min)**
001	RW-3	BG	10/26/23 12:26	11.79	44.01	BG	10/25/2023	12:24	12:35	Bladder Pump	2"	2.0	181.8
002	AP-1	BG	10/26/23 12:12	11.42	31.08	BG	10/26/2023	12:12	12:22	Bladder Pump	2"	3.0	300.0
003	AP-2	BG	10/26/23 12:52	8.70	21.33	BG	10/26/2023	12:52	13:05	Bladder Pump	2"	2.5	192.3
004	AP-3	BG	10/26/23 13:12	10.09		BG	10/26/2023	13:12	13:35	Bladder Pump	2"	2.0	87.0
005	AP-4	BG	10/26/23 13:57	10.79	60.41	BG	10/26/2023	13:57	14:06	Bladder Pump	2"	2.0	222.2
006	AP-5	BG	10/26/23 14:33	18.17	31.27	BG	10/26/2023	13:32	14:44	Bladder Pump	2"	4.0	55.6
007	AP-6	BG	10/26/23 8:57	10.06	39.62	BG	10/26/2023	08:58	09:09	Submersible Pump	2"	1.7	154.5
008	AP-7	TAC	10/26/23 13:35	12.45	42.52	TAC	10/26/2023	13:12	13:58	Bladder Pump	2"	3.5	76.1
009	AP-8	BG	10/26/23 9:18	8.07	39.60	BG	10/26/2023	09:20	09:30	Submersible Pump	2"	2.0	200.0
010	AP-9	TAC	10/26/23 14:26	13.87	39.60	TAC	10/26/2023	14:30	14:46	Submersible Pump	2"	2.5	156.2
011	AP-10	BG	10/26/23 12:30	6.57	38.07	BG	10/26/2023	12:30	12:43	Submersible Pump	2"	4.0	307.7
012	AP-11	BG	10/26/23 11:30	15.96	22.95	BG	10/26/2023	11:30	11:52	Submersible Pump	2"	6.0	272.7
013	AP-12	BG	10/26/23 10:43	18.44	30.40	BG	10/26/2023	10:43	11:20	Submersible Pump	2"	8.5	229.7
014	AP-13	BG	10/26/23 9:58	19.88	31.00	BG	10/26/2023	09:59	10:33	Submersible Pump	2"	9.5	279.4
015	AP-14	BG	10/26/23 13:37	3.72	31.20	BG	10/26/2023	13:38	13:51	Submersible Pump	2"	5.0	384.6

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101164
Technician(s): JC, BG

Groundwater Sampling Summary
CWLP- 4Q 2023

WO Sample	Well ID	Sampling Activities and Observations									
		Sampler Initials	Date	Sample Time	Sampling Method	Field Filtered	Appearance	Odor	Color	Post-Sample DTW (ft)	Drawdown (ft)
001	RW-3	bg	10/25/23	12:34	Low Flow	Yes	Clear	Slight	CLEAR	14.45	**2.66**
002	AP-1	BG	10/26/23	12:22	Low Flow	No	Clear	None	CLEAR	11.69	0.27
003	AP-2	BG	10/26/23	13:05	Low Flow	No	Clear	None	clear	8.82	0.12
004	AP-3	BG	10/26/23	13:25	Low Flow	No	Clear	Slight	Clear	10.43	0.34
005	AP-4	BG	10/26/23	14:06	Low Flow	No	Clear	Slight	Clear	11.11	0.32
006	AP-5	BG	10/26/23	14:44	Low Flow	No	Clear	None	Clear	20.72	**2.55**
007	AP-6	BG	10/26/23	09:09	Low Flow	No	Clear	Slight	clear	12.07	**2.01**
008	AP-7	TAC	10/26/23	13:58	Low Flow	No	Clear	None	None	14.42	**1.97**
009	AP-8	BG	10/26/23	09:30	Low Flow	No	Clear	None	CLEAR	8.54	0.47
010	AP-9	TAC	10/26/23	14:46	Low Flow	No	Clear	None	None	13.87	0.00
011	AP-10	BG	10/26/23	12:43	Low Flow	No	Clear	Slight	clear	6.23	-0.34
012	AP-11	BG	10/26/23	11:52	Low Flow	No	Clear	Slight	clear	16.46	0.50
013	AP-12	BG	10/26/23	11:20	Low Flow	No	Cloudy	Slight	Gray	19.44	**1.00**
014	AP-13	BG	10/26/23	10:33	Low Flow	No	Cloudy	Moderate	Gray	21.27	**1.39**
015	AP-14	BG	10/26/23	13:51	Low Flow	No	Clear	None	Clear	3.60	-0.12

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101164
Technician(s): JC, BG

Groundwater Sampling Summary
CWLP- 4Q 2023

WO Sample	Well ID	COMMENTS
001	RW-3	GW Level measurement time should be 1226 not 1504. logged this in the worng column
002	AP-1	
003	AP-2	
004	AP-3	
005	AP-4	
006	AP-5	
007	AP-6	
008	AP-7	
009	AP-8	
010	AP-9	
011	AP-10	
012	AP-11	
013	AP-12	
014	AP-13	
015	AP-14	

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101164
Technician(s): JC, BG

Stabilized Field Parameters Summary
CWLP- 4Q 2023

Well ID	Date	Time	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	DTB (ft)	DTW (ft)	LIMS ID
RW-3	10/25/2023	12:34	15.7	60.3	7.31	632.4	1.39	8.6	-125.8	44.01	11.79	23101164-001A
AP-1	10/26/2023	12:22	15.4	59.7	6.71	1,710.9	1.31	11.94	-103.3	31.08	11.42	23101164-002A
AP-2	10/26/2023	13:05	16.6	61.9	6.57	1,375.8	1.04	15.13	-16.1	21.33	8.70	23101164-003A
AP-3	10/26/2023	13:25	18.2	64.8	6.69	1,293.6	1.28	10.54	-79.9		10.09	23101164-004A
AP-4	10/26/2023	14:06	19.1	66.4	6.99	865.9	1.78	8.84	-91.3	60.41	10.79	23101164-005A
AP-5	10/26/2023	14:44	14.4	57.9	7.17	652.7	2.61	2.05	-2.3	31.27	18.17	23101164-006A
AP-6	10/26/2023	9:09	15.2	59.4	7.17	609.4	1.75	9.52	-101.5	39.62	10.06	23101164-007A
AP-7	10/26/2023	13:58	14.5	58.1	7.15	478.1	0.67	7.82	-155.7	42.52	12.45	23101164-008A
AP-8	10/26/2023	9:30	15.2	59.4	7.01	926.5	1.41	9.1	-111.3	39.60	8.07	23101164-009A
AP-9	10/26/2023	14:46	17.1	62.8	6.81	743.3	1.14	10.37	-111.2	39.60	13.87	23101164-010A
AP-10	10/26/2023	12:43	14.9	58.8	6.82	1,182.1	0.94	12.43	-111.3	38.07	6.57	23101164-011A
AP-11	10/26/2023	11:52	16.7	62.1	6.60	1,038.9	0.91	11.89	-84.2	22.95	15.96	23101164-012A
AP-12	10/26/2023	11:20	15.7	60.3	6.62	1,816.3	0.66	63.28	-144.5	30.40	18.44	23101164-013A
AP-13	10/26/2023	10:33	15.5	59.9	6.74	820.7	1.03	159.47	-94.3	31.00	19.88	23101164-014A
AP-14	10/26/2023	13:51	14.3	57.7	7.06	1,735.5	0.97	6.91	-50.6	31.20	3.72	23101164-015A

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101164
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
RW-3	10/25/2023	12:28	11.79	15.0	59.0	7.31	613.2	613.2	3.08	3.23	-61
RW-3	10/25/2023	12:31	11.79	16.0	60.8	7.25	633.4	633.4	1.93	8.1	-95.4
RW-3	10/25/2023	12:34	11.79	15.7	60.3	7.31	632.4	632.4	1.39	8.6	-125.8

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101164
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-2	10/26/2023	12:56	8.7	16.8	62.2	6.60	1,378.7	1,378.7	2.31	21.59	-20.8
AP-2	10/26/2023	12:59	8.7	16.7	62.1	6.58	1,375.7	1,375.7	1.54	19.53	-18
AP-2	10/26/2023	13:02	8.7	16.7	62.1	6.57	1,375.2	1,375.2	1.21	13.35	-16.9
AP-2	10/26/2023	13:05	8.7	16.6	61.88	6.57	1,375.8	1,375.8	1.04	15.13	-16.1

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101164
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-3	10/26/2023	13:16	10.09	18.3	64.9	6.82	1,258.1	1,258.1	4.12	12.63	-50.7
AP-3	10/26/2023	13:19	10.09	18.0	64.4	6.72	1,280.4	1,280.4	2.34	16.99	-64.5
AP-3	10/26/2023	13:22	10.09	18.2	64.8	6.70	1,289.4	1,289.4	1.58	11.27	-74.9
AP-3	10/26/2023	13:25	10.09	18.2	64.76	6.69	1,293.6	1,293.6	1.28	10.54	-79.9

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101164
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-7	10/26/2023	13:49	12.45	14.3	57.7	7.17	455.0	455.0	0.78	25.78	-151
AP-7	10/26/2023	13:52	12.45	14.5	58.1	7.16	456.5	456.5	0.74	21.99	-153.2
AP-7	10/26/2023	13:55	12.45	14.6	58.3	7.15	472.5	472.5	0.7	3.96	-154.3
AP-7	10/26/2023	13:58	12.45	14.5	58.1	7.15	478.1	478.1	0.67	7.82	-155.7

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101164
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-8	10/26/2023	9:24	8.07	15.0	59.0	7.03	927.0	927.0	2.61	17.19	-96.7
AP-8	10/26/2023	9:27	8.07	15.1	59.2	7.02	926.5	926.5	1.77	11.27	-105.8
AP-8	10/26/2023	9:30	8.07	15.2	59.4	7.01	926.5	926.5	1.41	9.1	-111.3

Summit Environmental Technologies, Inc.
3310 Win St.
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November 22, 2023

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 23101164

Dear Shelly Hennessy:

Order No.: 23110120

Summit Environmental Technologies, Inc. received 15 sample(s) on 11/1/2023 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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Case Narrative

WO#: **23110120**
Date: **11/22/2023**

CLIENT: TEKLAB Inc,
Project: 23101164

WorkOrder Narrative:
23110120: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

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Cuyahoga Falls, Ohio 4422
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Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **23110120**
Date: **11/22/2023**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **23110120**

22-Nov-23

CLIENT: TEKLAB Inc,
Project: 23101164

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
23110120-001	23101164-001		10/25/2023 12:35:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-002	23101164-002		10/26/2023 12:22:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-003	23101164-003		10/26/2023 1:05:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-004	23101164-004		10/26/2023 1:35:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-005	23101164-005		10/26/2023 2:06:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-006	23101164-006		10/26/2023 2:44:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-007	23101164-007		10/26/2023 9:09:00 AM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-008	23101164-008		10/26/2023 1:58:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-009	23101164-009		10/26/2023 9:30:00 AM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-010	23101164-010		10/26/2023 2:46:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-011	23101164-011		10/26/2023 12:43:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-012	23101164-012		10/26/2023 11:52:00 AM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-013	23101164-013		10/26/2023 11:20:00 AM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-014	23101164-014		10/26/2023 10:33:00 AM	11/1/2023 11:45:00 AM	Non-Potable Water
23110120-015	23101164-015		10/26/2023 1:51:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water

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DATES REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,

Project: 23101164

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23110120-001A	23101164-001	10/25/2023 12:35:00 PM	Non-Potable Water	Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-002A	23101164-002	10/26/2023 12:22:00 PM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-003A	23101164-003	10/26/2023 1:05:00 PM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-004A	23101164-004	10/26/2023 1:35:00 PM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-005A	23101164-005	10/26/2023 2:06:00 PM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-006A	23101164-006	10/26/2023 2:44:00 PM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-007A	23101164-007	10/26/2023 9:09:00 AM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-008A	23101164-008	10/26/2023 1:58:00 PM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM

Original

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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,

Project: 23101164

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23110120-008A	23101164-008	10/26/2023 1:58:00 PM	Non-Potable Water	Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-009A	23101164-009	10/26/2023 9:30:00 AM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-010A	23101164-010	10/26/2023 2:46:00 PM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-011A	23101164-011	10/26/2023 12:43:00 PM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-012A	23101164-012	10/26/2023 11:52:00 AM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-013A	23101164-013	10/26/2023 11:20:00 AM		Combined Radium (EPA903+904)			11/15/2023 7:54:51 AM
				Radium-226 (EPA 903.0)		11/7/2023 1:38:00 PM	11/13/2023 10:53:00 AM
				Radium-228 (EPA 904.0)		11/7/2023 1:38:00 PM	11/10/2023 3:00:00 PM
23110120-014A	23101164-014	10/26/2023 10:33:00 AM		Combined Radium (EPA903+904)			11/17/2023 7:27:41 AM
				Radium-226 (EPA 903.0)		11/9/2023 2:11:46 PM	11/15/2023 10:35:00 AM
				Radium-228 (EPA 904.0)		11/9/2023 2:11:46 PM	11/14/2023 2:13:00 PM
23110120-015A	23101164-015	10/26/2023 1:51:00 PM		Combined Radium (EPA903+904)			11/17/2023 7:27:41 AM
				Radium-226 (EPA 903.0)		11/9/2023 2:11:46 PM	11/15/2023 10:35:00 AM
				Radium-228 (EPA 904.0)		11/9/2023 2:11:46 PM	11/14/2023 2:13:00 PM

Original

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Analytical Report

(consolidated)

WO#: **23110120**

Date Reported: **11/22/2023**

CLIENT: TEKLAB Inc,

Collection Date: 10/25/2023 12:35:00 PM

Project: 23101164

Lab ID: 23110120-001

Matrix: NON-POTABLE WATER

Client Sample ID: 23101164-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**		Analyst: **CXS**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	1.09	2.00	U	pCi/L	± 0.750	1	11/15/2023 7:54:51 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	0.19	1.00	U	pCi/L	± 0.0700	1	11/13/2023 10:53:00 A
Yield	1					1	11/13/2023 10:53:00 A
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	0.9	1.00	J	pCi/L	± 0.680	1	11/10/2023 3:00:00 PM
Yield	1					1	11/10/2023 3:00:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at testcode

Original

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Analytical Report

(consolidated)

WO#: **23110120**

Date Reported: **11/22/2023**

CLIENT: TEKLAB Inc,

Collection Date: 10/26/2023 1:05:00 PM

Project: 23101164

Lab ID: 23110120-003

Matrix: NON-POTABLE WATER

Client Sample ID: 23101164-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**		Analyst: **CXS**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	0.42	2.00	U	pCi/L	± 0.610	1	11/15/2023 7:54:51 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	0.17	1.00	U	pCi/L	± 0.0700	1	11/13/2023 10:53:00 A
Yield	0.99					1	11/13/2023 10:53:00 A
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	0.25	1.00	U	pCi/L	± 0.540	1	11/10/2023 3:00:00 PM
Yield	1					1	11/10/2023 3:00:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
U	Samples with CalcVal < MDL
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

Original

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Analytical Report

(consolidated)

WO#: **23110120**

Date Reported: **11/22/2023**

CLIENT: TEKLAB Inc,

Collection Date: 10/26/2023 1:35:00 PM

Project: 23101164

Lab ID: 23110120-004

Matrix: NON-POTABLE WATER

Client Sample ID: 23101164-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**		Analyst: **CXS**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	0.65	2.00	U	pCi/L	± 0.670	1	11/15/2023 7:54:51 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	0.17	1.00	U	pCi/L	± 0.0700	1	11/13/2023 10:53:00 A
Yield	1					1	11/13/2023 10:53:00 A
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	0.48	1.00	U	pCi/L	± 0.600	1	11/10/2023 3:00:00 PM
Yield	1					1	11/10/2023 3:00:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at testcode

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **23110120**

Date Reported: **11/22/2023**

CLIENT: TEKLAB Inc,

Collection Date: 10/26/2023 1:58:00 PM

Project: 23101164

Lab ID: 23110120-008

Matrix: NON-POTABLE WATER

Client Sample ID: 23101164-008

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**		Analyst: **CXS**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	0.8	2.00	U	pCi/L	± 0.770	1	11/15/2023 7:54:51 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	0.33	1.00	U	pCi/L	± 0.100	1	11/13/2023 10:53:00 A
Yield	0.98					1	11/13/2023 10:53:00 A
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	0.47	1.00	U	pCi/L	± 0.670	1	11/10/2023 3:00:00 PM
Yield	1					1	11/10/2023 3:00:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at testcode

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Analytical Report

(consolidated)

WO#: **23110120**

Date Reported: **11/22/2023**

CLIENT: TEKLAB Inc,

Collection Date: 10/26/2023 9:30:00 AM

Project: 23101164

Lab ID: 23110120-009

Matrix: NON-POTABLE WATER

Client Sample ID: 23101164-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**		Analyst: **CXS**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	1.55	2.00	U	pCi/L	± 0.970	1	11/15/2023 7:54:51 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	0.05	1.00	U	pCi/L	± 0.160	1	11/13/2023 10:53:00 A
Yield	1					1	11/13/2023 10:53:00 A
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	1.5	1.00		pCi/L	± 0.810	1	11/10/2023 3:00:00 PM
Yield	0.99					1	11/10/2023 3:00:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
U	Samples with CalcVal < MDL
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,

Project: 23101164 **BatchID:** **70288**

Sample ID: **23110093-002AMS** SampType: **MS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/7/2023** RunNo: **174559**

Client ID: **BatchQC** Batch ID: **70288** TestNo: **E904.0** **E903-904** Analysis Date: **11/10/2023** SeqNo: **4721762**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.85	1.00	5.000	1.460	87.8	70	130				
Yield	1.00			1.000	0						

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,
Project: 23101164 **BatchID:** **70288**

Sample ID: **MB-70288**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174559**
Client ID: **PBW**	Batch ID: **70288**	TestNo: **E904.0**	**E903-904**	Analysis Date: **11/10/2023**	SeqNo: **4721756**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	1.00			0	0						

Sample ID: **LCS-70288**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174559**
Client ID: **LCSW**	Batch ID: **70288**	TestNo: **E904.0**	**E903-904**	Analysis Date: **11/10/2023**	SeqNo: **4721757**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.82	1.00	5.000	0	96.4	70	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-70288**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174559**
Client ID: **LCSS02**	Batch ID: **70288**	TestNo: **E904.0**	**E903-904**	Analysis Date: **11/10/2023**	SeqNo: **4721758**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.74	1.00	5.000	0	74.8	70	130	4.820	25.2	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,

Project: 23101164 **BatchID:** **70288**

Sample ID: **RLCD-70288** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/7/2023** RunNo: **174559**

Client ID: **BatchQC** Batch ID: **70288** TestNo: **E904.0** **E903-904** Analysis Date: **11/10/2023** SeqNo: **4721761**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.10	1.00	1.000	0	110	50	150				
Yield	0.970			0	0						

Sample ID: **23110191-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/7/2023** RunNo: **174559**

Client ID: **BatchQC** Batch ID: **70288** TestNo: **E904.0** **E903-904** Analysis Date: **11/10/2023** SeqNo: **4721783**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0.7400	200	20	RU
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,

Project: 23101164 **BatchID:** **70288**

Sample ID: **23110093-002AMS** SampType: **MS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/7/2023** RunNo: **174560**

Client ID: **BatchQC** Batch ID: **70288** TestNo: **E903.0** **E903-904** Analysis Date: **11/13/2023** SeqNo: **4721797**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.76	1.00	5.000	0	115	70	130				

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,
Project: 23101164 **BatchID:** **70288**

Sample ID: **MB-70288**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174560**
Client ID: **PBW**	Batch ID: **70288**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/13/2023**	SeqNo: **4721791**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	0.990										

Sample ID: **LCS-70288**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174560**
Client ID: **LCSW**	Batch ID: **70288**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/13/2023**	SeqNo: **4721792**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.76	1.00	5.000	0	95.2	70	130				

Sample ID: **LCSD-70288**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174560**
Client ID: **LCSS02**	Batch ID: **70288**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/13/2023**	SeqNo: **4721793**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.50	1.00	5.000	0	90.0	70	130	4.760	5.62	20	

Sample ID: **RLC-70288**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174560**
Client ID: **BatchQC**	Batch ID: **70288**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/13/2023**	SeqNo: **4721795**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,
Project: 23101164 **BatchID:** **70288**

Sample ID: **RLC-70288**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174560**
Client ID: **BatchQC**	Batch ID: **70288**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/13/2023**	SeqNo: **4721795**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.29	1.00	1.000	0	129	50	150				

Sample ID: **RLCD-70288**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174560**
Client ID: **BatchQC**	Batch ID: **70288**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/13/2023**	SeqNo: **4721796**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.18	1.00	1.000	0	118	50	150				

Sample ID: **23110190-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174560**
Client ID: **BatchQC**	Batch ID: **70288**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/13/2023**	SeqNo: **4721816**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	1.00							1.000	0	0	

Sample ID: **23110191-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/7/2023**	RunNo: **174560**
Client ID: **BatchQC**	Batch ID: **70288**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/13/2023**	SeqNo: **4721818**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,
Project: 23101164 **BatchID:** **70288**

Sample ID: **23110191-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/7/2023** RunNo: **174560**
Client ID: **BatchQC** Batch ID: **70288** TestNo: **E903.0** **E903-904** Analysis Date: **11/13/2023** SeqNo: **4721818**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,
Project: 23101164 **BatchID:** **70385**

Sample ID: **23110328-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/9/2023** RunNo: **174694**
Client ID: **BatchQC** Batch ID: **70385** TestNo: **E904.0** **E903-904** Analysis Date: **11/14/2023** SeqNo: **4725143**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0.7700	200	30	RU
Yield	0.840			0	0			0.9100	8.00		

Sample ID: **23110328-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/9/2023** RunNo: **174694**
Client ID: **BatchQC** Batch ID: **70385** TestNo: **E904.0** **E903-904** Analysis Date: **11/14/2023** SeqNo: **4725145**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.910	1.00		0	0			0	200	30	JR
Yield	0.730			0	0			0.9600	27.2		

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,
Project: 23101164 **BatchID:** **70385**

Sample ID: **MB-70385**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **11/9/2023**	RunNo: **174694**
Client ID: **PBW**	Batch ID: **70385**	TestNo: **E904.0**	**E903-904**	Analysis Date: **11/14/2023**	SeqNo: **4725103**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	1.00			0	0						

Sample ID: **LCS-70385**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **11/9/2023**	RunNo: **174694**
Client ID: **LCSW**	Batch ID: **70385**	TestNo: **E904.0**	**E903-904**	Analysis Date: **11/14/2023**	SeqNo: **4725104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.03	1.00	5.000	0	80.6	70	130				
Yield	0.850			0	0						

Sample ID: **RLC-70385**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **11/9/2023**	RunNo: **174694**
Client ID: **BatchQC**	Batch ID: **70385**	TestNo: **E904.0**	**E903-904**	Analysis Date: **11/14/2023**	SeqNo: **4725107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.930	1.00	1.000	0	93.0	50	150				J
Yield	0.920			0	0						

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,
Project: 23101164 **BatchID:** **70385**

Sample ID: **23110328-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/9/2023** RunNo: **174727**
Client ID: **BatchQC** Batch ID: **70385** TestNo: **E903.0** **E903-904** Analysis Date: **11/15/2023** SeqNo: **4726100**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	U
Yield	1.00							1.000	0	0	

Sample ID: **23110328-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/9/2023** RunNo: **174727**
Client ID: **BatchQC** Batch ID: **70385** TestNo: **E903.0** **E903-904** Analysis Date: **11/15/2023** SeqNo: **4726102**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	U
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

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QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,
Project: 23101164 **BatchID:** **70385**

Sample ID: **MB-70385**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/9/2023**	RunNo: **174727**
Client ID: **PBW**	Batch ID: **70385**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/15/2023**	SeqNo: **4726091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	0.960										

Sample ID: **LCS-70385**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/9/2023**	RunNo: **174727**
Client ID: **LCSW**	Batch ID: **70385**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/15/2023**	SeqNo: **4726092**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.82	1.00	5.000	0	116	70	130				

Sample ID: **LCSD-70385**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/9/2023**	RunNo: **174727**
Client ID: **LCSS02**	Batch ID: **70385**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/15/2023**	SeqNo: **4726093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.96	1.00	5.000	0	99.2	70	130	5.820	16.0	20	

Sample ID: **RLC-70385**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/9/2023**	RunNo: **174727**
Client ID: **BatchQC**	Batch ID: **70385**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/15/2023**	SeqNo: **4726095**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **23110120**

22-Nov-23

Client: TEKLAB Inc,
Project: 23101164 **BatchID:** **70385**

Sample ID: **RLC-70385** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/9/2023** RunNo: **174727**
Client ID: **BatchQC** Batch ID: **70385** TestNo: **E903.0** **E903-904** Analysis Date: **11/15/2023** SeqNo: **4726095**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	60.0	50	150				

Sample ID: **RLCD-70385** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/9/2023** RunNo: **174727**
Client ID: **BatchQC** Batch ID: **70385** TestNo: **E903.0** **E903-904** Analysis Date: **11/15/2023** SeqNo: **4726096**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.820	1.00	1.000	0	82.0	50	150				J

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spe

Original

Pg 1 of 2 23110120

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: Teklab INC QC Level: 1

Comments: Please Issue reports and invoices via email only
Please analyze for Radium (226, 228, and combined) by method EPA903.0/904.0
on standard TAT Please include negative values (no ND).
Batch QC and CCR EDD are required. Receipt summary requested.

Project# 23101164

Contact: Shelly Hennessy Email: shennessy
Requested Due Date: 20 business days or less Billing/PO: 35260
Phone: 618 344 1004

State of Origin: IL

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	Combined Radium										pH	CPM
	23101164-001	10/25/23 1235	HNO3	Groundwater	✔	✔	✔										1	25
	23101164-002	10/26/23 1222	HNO3	Groundwater	✔	✔	✔										1	21
	23101164-003	10/26/23 1305	~~Unpres~~ HNO3	Groundwater	✔	✔	✔										1	31
	23101164-004	10/26/23 1335	~~Unpres~~	Groundwater	✔	✔	✔										1	31
	23101164-005	10/26/23 1406	~~Unpres~~	Groundwater	✔	✔	✔										1	18
	23101164-006	10/26/23 1444	~~Unpres~~	Groundwater	✔	✔	✔										1	31
	23101164-007	10/26/23 0909	~~Unpres~~	Groundwater	✔	✔	✔										1	18
	23101164-008	10/26/23 1358	~~Unpres~~	Groundwater	✔	✔	✔										1	18
	23101164-009	10/26/23 0930	~~Unpres~~	Groundwater	✔	✔	✔										1	31
	23101164-010	10/26/23 1446	~~Unpres~~	Groundwater	✔	✔	✔										1	27
	23101164-011	10/26/23 1243	~~Unpres~~	Groundwater	✔	✔	✔										1	15

*Relinquished By	Date/Time	Received By	Date/Time
		Jackie Nesbitt	11-1-23 11:45

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA
3/2/2016

17.3, 13.5, 13.6 / Couriers / FedEx

17.6, 13.4, 13.5

TEKLAB, INC. Chain of Custody

23110120

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: Teklab INC QC Level: 1

Project# 23101164

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium (226, 228, and combined) by method EPA903.0/904.0
on standard TAT Please include negative values (no ND).
Batch QC and CCR EDD are required. Receipt summary requested.

Contact: Shelly Hennessy Email: shennessy
Requested Due Date: 20 business days or less Billing/PO: 35260
Phone: 618 344 1004 State of Origin:

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	Combined Radium										
	23101164-012 10/20/23	~~10/26/23~~ 1152	HNO3	Groundwater	✔	✔	✔								11		
	23101164-013	10/26/23 1120	HNO3	Groundwater	✔	✔	✔								1		
	23101164-014	10/26/23 1033	~~Unpres~~ HNO3	Groundwater	✔	✔	✔								1		
	23101164-015	10/26/23 1351	~~Unpres~~ ↓	Groundwater	✔	✔	✔								1		
			Unpres	Groundwater													
			Unpres	Groundwater													
			Unpres	Groundwater													
			Unpres	Groundwater													
			Unpres	Groundwater													
			Unpres	Groundwater													

CPM
11
15
18
50

*Relinquished By	Date/Time	Received By	Date/Time
			11-1-23/1145

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA
3/2/2018

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 23110120 RcptNo: 1

Logged by:	Jacqueline Rasile	11/1/2023 11:45:00 AM	Jackie Rasile
Completed By:	Jacqueline Rasile	11/2/2023 11:10:56 AM	Jackie Rasile
Reviewed By:	Jennifer Woolf	11/2/2023 1:45:17 PM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☑
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☐ NA ☑
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	13.5	Good	Not Present			

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 23110120 RcptNo: 1

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	13.6	Good	Not Present			
3	17.7	Good	Not Present			

November 14, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Landfill Monitoring Wells **WorkOrder:** 23101166

Dear Eric Staley:

TEKLAB, INC received 12 samples on 10/25/2023 5:15:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 23101166
Report Date: 14-Nov-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	19
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23101166

Client Project: Landfill Monitoring Wells **Report Date:** 14-Nov-23

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power

Work Order: 23101166

Client Project: Landfill Monitoring Wells

Report Date: 14-Nov-23

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 23101166
Report Date: 14-Nov-23

Cooler Receipt Temp: 4.8 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 23101166

Client Project: Landfill Monitoring Wells

Report Date: 14-Nov-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power
Work Order: 23101166
Client Project: Landfill Monitoring Wells
Report Date: 14-Nov-23
Lab ID: 23101166-009
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 10/25/2023 9:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	10/25/2023 9:59	R338510
Depth to water	*	-5.00		**14.63**	ft	1	10/25/2023 9:59	R338510
Depth to water from measuring point	*	0		**17.38**	ft	1	10/25/2023 9:59	R338510
Elevation of groundwater surface	*	0		**538.22**	ft	1	10/25/2023 9:59	R338510
Measuring Point Elevation	*	0		**555.60**	ft	1	10/25/2023 9:59	R338510
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.1**	°F	1	10/25/2023 9:59	R338510
SW-846 9040B								
pH, Field	*	1.00		**6.54**		1	10/25/2023 9:59	R338510
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1450**	µmhos/cm @25C	1	10/25/2023 9:59	R338510
EPA 600 350.1 (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.56**	mg/L	1	10/27/2023 13:38	R338368
EPA 600 353.2 R2.0 (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**0.086**	mg/L	1	10/26/2023 13:49	R338390
STANDARD METHODS 2540 C (DISSOLVED) 1997, 2011								
Total Dissolved Solids	NELAP	50		**965**	mg/L	2.5	10/30/2023 12:58	R338538
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	10/31/2023 16:41	213865
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	100		**360**	mg/L	10	10/27/2023 17:47	R338425
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	4		**43**	mg/L	1	10/27/2023 17:41	R338455
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**7880**	µg/L	1	11/02/2023 9:07	214021
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/01/2023 15:45	214021
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	11/01/2023 15:45	214021
Magnesium	NELAP	0.050		**80.3**	mg/L	1	11/01/2023 15:45	214021
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	11/01/2023 15:45	214021
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**216**	µg/L	5	11/01/2023 20:20	214021
Lead	NELAP	1.0		**< 1.0**	µg/L	5	11/01/2023 20:20	214021
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/01/2023 13:17	214030

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 23101166
Report Date: 14-Nov-23

Carrier: Justin Colp
Received By: HAW

Completed by: Timothy W. Mathis
On: 26-Oct-23

Reviewed by: Ellie Hopkins
On: 26-Oct-23

Pages to follow: Chain of custody 3 Extra pages included 12

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	4.8	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.						
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑			
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑			
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐			
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑			

Any No responses must be detailed below or on the COC.

pH strip #90719/79929 CET. - TMathis - 10/26/2023 12:35:55 PM

Additional NaOH (81662) was needed in all Cyanide containers; Additional H2SO4 (90128) was needed upon arrival at the laboratory in G120.- TMathis - 10/26/2023 12:36:37 PM

Samples collected on 10/26/23 were delivered to the laboratory on 10/26/23 at 1707 (on ice - 2.4C - LTG1). - AMD/ERH 10/27/23

Additional NaOH (81662) was needed upon arrival at the laboratory in G113. - amberdilallo - 10/27/2023 9:42:38 AM

pH strip #79929/90719. - amberdilallo - 10/27/2023 9:42:58 AM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23011606

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 4.8 °C GTG
Preserved in: ☑ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: pH 7/9/7/29. added NaOH(81662) to all NaOH samples. Added H2SO4(907158) to G120.

Client Comments: GW 10-26-23
Quarters 1, 3, & 4
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
XTE SAH 11/6/23

PROJECT NAME/NUMBER: Landfill Monitoring Wells
SAMPLE COLLECTOR'S NAME: Justin Colp

RESULTS REQUESTED: ☑ Standard ☐ 1-2 Day (100% Surcharge) ☐ Other ☐ 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)
23011606-001	R101	10-25-23 / 1442	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
002	G110		Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
003	R111		Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
004	G112	10-25-23 / 1053	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
005	G113		Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
006	G120	10-25-23 / 1339	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
007	G121	1201	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
008	G122	1129	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
009	AW-1	0959	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
010	AW-2	1318	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔
011	RW-3	10-25-23 / 1235	Groundwater	2	1	1	1						✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	10-25-23 1715	[signature]	10/25/23 1715

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

GW 10-26-23

Print PDF

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 23101166

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:

Quarters 1, 3, & 4

*elevations, pH, conductivity, temperature

**As B Cd Cr Pb Mg Hg Zn

PROJECT NAME/NUMBER

Landfill Monitoring Wells

SAMPLE COLLECTOR'S NAME

Justin Colp

RESULTS REQUESTED

☑ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)
23101166-012	DUPLICATE	10-25-23 1201	Groundwater	1	1	1	1							✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	10-25-23 1715	[signature]	10/25/23 1715

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Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 23101166

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 2.4 °C
Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY LTCL
LAB NOTES: Added NaOH (filtered) to G113. pH ✓
XTE 11/6/23 7009/9079

Client Comments:
Quarters 1, 3, & 4
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn

10/27/23

PROJECT NAME/NUMBER
Landfill Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)
23101166-001	R101		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
002	G110	10-25-23 / 1220	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
003	R111	10-25-23 / 1135	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
004	G112		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
005	G113	10-25-23 / ~~1422~~	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
006	G120	1422 ~~1415~~ *	Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
007	G121		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
008	G122		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓
011	RW-3		Groundwater	2	1	1	1						✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
[signature]	10-26-23 1707	[signature]	10/26/23 1707

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101166
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AW-1	10/25/2023	9:38	17.38	15.1	6.44	1,447.0	1,447.0	2.11	123.41	-45.2
AW-1	10/25/2023	9:41	17.38	15.0	6.48	1,448.4	1,448.4	1.63	117.73	-59.6
AW-1	10/25/2023	9:44	17.38	15.0	6.50	1,447.7	1,447.7	1.38	121.79	-68.3
AW-1	10/25/2023	9:47	17.38	15.1	6.51	1,448.1	1,448.1	1.22	117.33	-74.4
AW-1	10/25/2023	9:50	17.38	15.1	6.52	1,449.6	1,449.6	1.11	103.92	-79.5
AW-1	10/25/2023	9:53	17.38	14.9	6.53	1,449.9	1,449.9	0.99	97.27	-83.9
AW-1	10/25/2023	9:56	17.38	15.1	6.54	1,448.8	1,448.8	0.91	86.14	-87
AW-1	10/25/2023	9:59	17.38	15.1	6.54	1,449.2	1,449.2	0.86	80.77	-89.9

November 30, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 23101165

Dear Eric Staley:

TEKLAB, INC received 11 samples on 10/25/2023 5:15:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 23101165
Report Date: 30-Nov-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	19
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23101165

Client Project: FGDS Landfill **Report Date:** 30-Nov-23

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 23101165
Client Project: FGDS Landfill
Report Date: 30-Nov-23

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 23101165
Client Project: FGDS Landfill
Report Date: 30-Nov-23

Cooler Receipt Temp: 4.8 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & Radium-228 analyses were performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 23101165
Client Project: FGDS Landfill
Report Date: 30-Nov-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 23101165

Client Project: FGDS Landfill **Report Date:** 30-Nov-23

Lab ID: 23101165-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 10/25/2023 9:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	10/25/2023 9:59	R338823
Depth to water	*	-5.00		**14.63**	ft	1	10/25/2023 9:59	R338823
Depth to water from measuring point	*	0		**17.38**	ft	1	10/25/2023 9:59	R338823
Elevation of groundwater surface	*	0		**538.22**	ft	1	10/25/2023 9:59	R338823
Measuring Point Elevation	*	0		**555.60**	ft	1	10/25/2023 9:59	R338823
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	10/25/2023 9:59	R338823
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**81**	NTU	1	10/25/2023 9:59	R338823
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.1**	°F	1	10/25/2023 9:59	R338823
SW-846 9040B								
pH, Field	*	1.00		**6.54**		1	10/25/2023 9:59	R338823
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1450**	µmhos/cm @25C	1	10/25/2023 9:59	R338823
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**1220**	mg/L	5	10/30/2023 11:50	R338538
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**384**	mg/L	10	10/27/2023 20:51	R338425
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**< 0.10**	mg/L	1	11/02/2023 15:50	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**40**	mg/L	1	10/27/2023 20:45	R338455
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**1.96**	mg/L	1	11/02/2023 11:49	213836
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/02/2023 11:49	213836
Boron	NELAP	0.0200		**8.66**	mg/L	1	11/02/2023 11:49	213836
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/02/2023 11:49	213836
Calcium	NELAP	0.100		**197**	mg/L	1	11/02/2023 11:49	213836
Chromium	NELAP	0.0050		**0.0101**	mg/L	1	11/02/2023 11:49	213836
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 11:49	213836
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/02/2023 11:49	213836
Lithium	NELAP	0.0050		**0.0739**	mg/L	1	11/02/2023 11:49	213836
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/02/2023 11:49	213836
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 20:16	213836
Arsenic	NELAP	0.0010		**0.208**	mg/L	5	11/02/2023 20:16	213836
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 20:16	213836
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/02/2023 20:16	213836
PQL recovered outside upper control limits for Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/01/2023 12:24	214005
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/21/2023 0:00	R339861
Radium-228	*	0		**See Attached**	pci/L	1	11/21/2023 0:00	R339861

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 23101165
Report Date: 30-Nov-23

Carrier: Justin Colp

Received By: HAW

Completed by: Timothy W. Mathis
On: 26-Oct-23

Reviewed by: Ellie Hopkins
On: 27-Oct-23

Pages to follow: Chain of custody 2 Extra pages included 45

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 4.8
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #90719 CET. - TMathis - 10/26/2023 12:50:41 PM

Additional Nitric Acid (92447) was needed in AW-2 250 and G120 2L upon arrival at the laboratory. - TMathis - 10/26/2023 12:55:07 PM

pH strip #90719. - amberdilallo - 10/27/2023 9:46:53 AM

Samples collected on 10/26/23 were delivered to the laboratory on 10/26/23 at 1707 (on ice - 2.4C - LTG1). - HW/ERH 10/27/23

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 23101165

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 4.8 °C CT 6.5
Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: pH in 2719, A2282 HNO3 (9244) to AW-2 250m and G120 2L. CAS 10-26-23.

Client Comments: *TE 1234 SAH 11/7/23
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 23101164-001

PROJECT NAME/NUMBER: FGDS Landfill
SAMPLE COLLECTOR'S NAME: Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23101165-001	R101	10-25-23 / 1442	Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	G110		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	R111		Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	G112	10-25-23 / 1053	Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	G113		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	G120	10-25-23 / 1339	Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	G121	1201	Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	G122	1129	Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AW-1	0959	Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AW-2	1318	Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	RW-3 ⊛	* 1235	Groundwater	0	0								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	10-25-23 1715	[signature]	10/25/23 1715

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CAO 10/26/23

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 23101165

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 2.4 °C (TC#1)
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: 9019 Sum 10/27/23

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 23101164-001

PROJECT NAME/NUMBER: FGDS Landfill
SAMPLE COLLECTOR'S NAME: Justin Gilp

RESULTS REQUESTED: [✓] Standard [ ] 1-2 Day (100% Surcharge) [ ] Other [ ] 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23101165-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G110	10-25-23/1220	Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	R111	10-25-23/1135	Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	G113 *	10-25-23/~~1422~~	Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	G120	10/25 1422 1415	Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	G121	TE SAN 11/7/23	Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	G122		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	RW-3 ⊛		Groundwater	0	0								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Brett Gilp	10-26-23 17:07	Hardin Wa	10/26/23 1707

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Summary
CWLP- 4Q 2023

			Weather				Well Condition				
WO Sample	**Well ID**	**Program/ Sample Type**	**Temp (°F)**	**Precipitation**	**Wind Direction**	**Sky**	**Well Pad**	**Casing**	**Protective Cover**	**Reference Mark/ ID**	**Well Locked**
001	R101	Groundwater Sample	74.0	None	S	Clear	Good	Good	Good	Yes	**No**
002	G110	Groundwater Sample	71.0	Light	S	Cloudy	Good	Good	Good	**No**	**No**
003	R111	Groundwater Sample	71.0	None	S	Cloudy	Good	Good	Good	Yes	**No**
004	G112	Groundwater Sample	64.0	None	SW	Cloudy	Good	Good	Good	Yes	**No**
005	G113	Groundwater Sample	73.0	None	S	Clear	Good	Good	Good	Yes	**No**
006	G120	Groundwater Sample	71.0	None	S	Clear	Good	Good	Good	Yes	**No**
007	G121	Groundwater Sample	68.0	None	S	Cloudy	Good	Good	Good	Yes	**No**
008	G122	Groundwater Sample	67.0	None	S	Partly cloudy	Good	Good	Good	Yes	**No**
009	AW-1	Groundwater Sample	64.0	None	SW	Cloudy	Good	Good	Good	Yes	**No**
010	AW-2	Groundwater Sample	71.0	None	S	Partly cloudy	Good	Good	Good	Yes	**No**
011	RW-3	Groundwater Sample	70.0	None	S	Clear	Good	Good	Good	**No**	**No**

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Summary
CWLP- 4Q 2023

		GW Level Measurement				Purge Activities							
WO Sample	**Well ID**	**Sampler Initials**	**Date/Time**	**DTW (ft)**	**DTB (ft)**	**Sampler Initials**	**Purge Date**			**Sampling Device**	**Well Diameter (in)**	**Actual Volume Purged (L)**	**Purge Rate (mL/min)**
001	R101	BG	10/25/23 14:35	8.73	35.27	BG	10/25/2023	14:34	14:42	Submersible Pump	2"	3.0	375.0
002	G110	TAC	10/26/23 12:00	25.72	57.15	TAC	10/26/2023	12:05	12:20	Peristaltic Pump	2"	3.5	233.3
003	R111	TAC	10/26/23 11:14	26.87	55.75	TAC	10/26/2023	11:18	11:35	Submersible Pump	2"	6.0	352.9
004	G112	BG	10/25/23 10:22	30.42	58.81	BG	10/25/2023	10:23	10:53	Submersible Pump	2"	7.0	233.3
005	G113	BG	10/25/23 14:10	9.62	12.85	BG	10/25/2023	14:11	14:22	Submersible Pump	2"	3.0	272.7
006	G120	bg	10/25/23 13:30	18.61	50.37	BG	10/25/2023	13:32	13:39	Submersible Pump	2"	2.0	285.7
007	G121	BG	10/25/23 11:39	30.54	58.56	BG	10/25/2023	11:40	12:01	Submersible Pump	2"	8.0	381.0
008	G122	BG	10/25/23 11:07	32.24	49.29	BG	10/25/2023	11:09	11:29	Submersible Pump	2"	7.0	350.0
009	AW-1	BG	10/25/23 9:25	17.38	54.81	BG	10/25/2023	09:28	09:59	Submersible Pump	2"	7.0	225.8
010	AW-2	BG	10/25/23 12:51	7.41	32.64	BG	10/25/2023	12:52	13:18	Submersible Pump	2"	6.0	230.8
011	RW-3	BG	10/26/23 12:26	11.79	44.01	BG	10/25/2023	12:24	12:35	Bladder Pump	2"	2.0	181.8

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

November 28, 2023

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 23101165

Dear Shelly Hennessy:

Order No.: 23110123

Summit Environmental Technologies, Inc. received 11 sample(s) on 11/1/2023 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **23110123**
Date: **11/28/2023**

CLIENT: TEKLAB Inc,
Project: 23101165

WorkOrder Narrative:
23110123: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44&
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **23110123**
Date: **11/28/2023**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **23110123**

28-Nov-23

CLIENT: TEKLAB Inc,
Project: 23101165

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
23110123-001	23101165-001		10/25/2023 2:42:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110123-002	23101165-002		10/26/2023 12:20:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110123-003	23101165-003		10/26/2023 11:35:00 AM	11/1/2023 11:45:00 AM	Non-Potable Water
23110123-004	23101165-004		10/25/2023 10:53:00 AM	11/1/2023 11:45:00 AM	Non-Potable Water
23110123-005	23101165-005		10/26/2023 2:15:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110123-006	23101165-006		10/25/2023 1:39:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110123-007	23101165-007		10/25/2023 12:01:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110123-008	23101165-008		10/25/2023 11:29:00 AM	11/1/2023 11:45:00 AM	Non-Potable Water
23110123-009	23101165-009		10/25/2023 9:59:00 AM	11/1/2023 11:45:00 AM	Non-Potable Water
23110123-010	23101165-010		10/25/2023 1:18:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water
23110123-011	23101165-011		10/25/2023 12:35:00 PM	11/1/2023 11:45:00 AM	Non-Potable Water

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DATES REPORT

WO#: **23110123**

28-Nov-23

Client: TEKLAB Inc,

Project: 23101165

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23110123-001A	23101165-001	10/25/2023 2:42:00 PM	Non-Potable Water	Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/9/2023 2:11:46 PM	11/15/2023 10:35:00 AM
				Radium-228 (EPA 904.0)		11/9/2023 2:11:46 PM	11/14/2023 2:13:00 PM
23110123-002A	23101165-002	10/26/2023 12:20:00 PM		Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/9/2023 2:11:46 PM	11/15/2023 10:35:00 AM
				Radium-228 (EPA 904.0)		11/9/2023 2:11:46 PM	11/14/2023 2:13:00 PM
23110123-003A	23101165-003	10/26/2023 11:35:00 AM		Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/9/2023 2:11:46 PM	11/15/2023 10:35:00 AM
				Radium-228 (EPA 904.0)		11/9/2023 2:11:46 PM	11/14/2023 2:13:00 PM
23110123-004A	23101165-004	10/25/2023 10:53:00 AM		Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/9/2023 2:11:46 PM	11/15/2023 10:35:00 AM
				Radium-228 (EPA 904.0)		11/9/2023 2:11:46 PM	11/14/2023 2:13:00 PM
23110123-005A	23101165-005	10/26/2023 2:15:00 PM		Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/9/2023 2:11:46 PM	11/15/2023 10:35:00 AM
				Radium-228 (EPA 904.0)		11/9/2023 2:11:46 PM	11/14/2023 2:13:00 PM
23110123-006A	23101165-006	10/25/2023 1:39:00 PM		Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/9/2023 2:11:46 PM	11/15/2023 10:35:00 AM
				Radium-228 (EPA 904.0)		11/9/2023 2:11:46 PM	11/14/2023 2:13:00 PM
23110123-007A	23101165-007	10/25/2023 12:01:00 PM		Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/9/2023 2:11:46 PM	11/15/2023 10:35:00 AM
				Radium-228 (EPA 904.0)		11/9/2023 2:11:46 PM	11/14/2023 2:13:00 PM
23110123-008A	23101165-008	10/25/2023 11:29:00 AM		Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/21/2023 12:03:19 PM	11/22/2023 9:43:00 AM

Original

Summit Environmental Technologies, Inc.
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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **23110123**

28-Nov-23

Client: TEKLAB Inc,

Project: 23101165

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23110123-008A	23101165-008	10/25/2023 11:29:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		11/21/2023 12:03:19 PM	11/21/2023 2:30:00 PM
23110123-009A	23101165-009	10/25/2023 9:59:00 AM		Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/21/2023 12:03:19 PM	11/22/2023 9:43:00 AM
				Radium-228 (EPA 904.0)		11/21/2023 12:03:19 PM	11/21/2023 2:30:00 PM
23110123-010A	23101165-010	10/25/2023 1:18:00 PM		Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/21/2023 12:03:19 PM	11/22/2023 9:43:00 AM
				Radium-228 (EPA 904.0)		11/21/2023 12:03:19 PM	11/21/2023 2:30:00 PM
23110123-011A	23101165-011	10/25/2023 12:35:00 PM		Combined Radium (EPA903+904)			11/28/2023 8:32:00 AM
				Radium-226 (EPA 903.0)		11/21/2023 12:03:19 PM	11/22/2023 9:43:00 AM
				Radium-228 (EPA 904.0)		11/21/2023 12:03:19 PM	11/21/2023 2:30:00 PM

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **23110123**

Date Reported: **11/28/2023**

CLIENT: TEKLAB Inc,

Collection Date: 10/25/2023 9:59:00 AM

Project: 23101165

Lab ID: 23110123-009

Matrix: NON-POTABLE WATER

Client Sample ID: 23101165-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**		Analyst: **CXS**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	0.45	2.00	U	pCi/L	± 0.450	1	11/28/2023 8:32:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	0.11	1.00	U	pCi/L	± 0.0600	1	11/22/2023 9:43:00 AM
Yield	0.94					1	11/22/2023 9:43:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	0.34	1.00	U	pCi/L	± 0.390	1	11/21/2023 2:30:00 PM
Yield	0.95					1	11/21/2023 2:30:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at testcode

Original

November 30, 2023

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 23101165

Dear Eric Staley:

TEKLAB, INC received 11 samples on 10/25/2023 5:15:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 23101165
Report Date: 30-Nov-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	19
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 23101165

Client Project: FGDS Landfill **Report Date:** 30-Nov-23

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 23101165
Client Project: FGDS Landfill
Report Date: 30-Nov-23

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 23101165
Client Project: FGDS Landfill
Report Date: 30-Nov-23

Cooler Receipt Temp: 4.8 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & Radium-228 analyses were performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 23101165
Client Project: FGDS Landfill
Report Date: 30-Nov-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 23101165

Client Project: FGDS Landfill **Report Date:** 30-Nov-23

Lab ID: 23101165-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 10/25/2023 14:42

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	10/25/2023 14:42	R338823
Depth to water	*	-5.00		**5.93**	ft	1	10/25/2023 14:42	R338823
Depth to water from measuring point	*	0		**8.73**	ft	1	10/25/2023 14:42	R338823
Elevation of groundwater surface	*	0		**538.07**	ft	1	10/25/2023 14:42	R338823
Measuring Point Elevation	*	0		**546.80**	ft	1	10/25/2023 14:42	R338823
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	10/25/2023 14:42	R338823
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**14**	NTU	1	10/25/2023 14:42	R338823
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.2**	°F	1	10/25/2023 14:42	R338823
SW-846 9040B								
pH, Field	*	1.00		**6.81**		1	10/25/2023 14:42	R338823
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1200**	µmhos/cm @25C	1	10/25/2023 14:42	R338823
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**840**	mg/L	1	10/30/2023 11:49	R338538
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**271**	mg/L	10	10/27/2023 19:55	R338425
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.13**	mg/L	1	11/02/2023 15:24	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**112**	mg/L	5	10/27/2023 19:49	R338455
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0621**	mg/L	1	11/02/2023 10:48	213836
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/02/2023 10:48	213836
Boron	NELAP	0.0200		**0.126**	mg/L	1	11/02/2023 10:48	213836
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/02/2023 10:48	213836
Calcium	NELAP	0.100		**162**	mg/L	1	11/02/2023 10:48	213836
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 10:48	213836
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 10:48	213836
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/02/2023 10:48	213836
Lithium	NELAP	0.0050		**0.0524**	mg/L	1	11/02/2023 10:48	213836
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/02/2023 10:48	213836
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:09	213836
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:09	213836
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:09	213836
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/02/2023 19:09	213836
PQL recovered outside upper control limits for Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/01/2023 10:30	214005
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/14/2023 0:00	R339861
Radium-228	*	0		**See Attached**	pci/L	1	11/14/2023 0:00	R339861

Client: City Water, Light & Power **Work Order:** 23101165

Client Project: FGDS Landfill **Report Date:** 30-Nov-23

Lab ID: 23101165-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 10/26/2023 12:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.05**	ft	1	10/26/2023 12:20	R338823
Depth to water	*	-5.00		**23.11**	ft	1	10/26/2023 12:20	R338823
Depth to water from measuring point	*	0		**25.72**	ft	1	10/26/2023 12:20	R338823
Elevation of groundwater surface	*	0		**531.48**	ft	1	10/26/2023 12:20	R338823
Measuring Point Elevation	*	0		**557.20**	ft	1	10/26/2023 12:20	R338823
Measuring Point Height Above Land Surface	*	0		**2.61**	ft	1	10/26/2023 12:20	R338823
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.9**	NTU	1	10/26/2023 12:20	R338823
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.8**	°F	1	10/26/2023 12:20	R338823
SW-846 9040B								
pH, Field	*	1.00		**6.84**		1	10/26/2023 12:20	R338823
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**603**	µmhos/cm @25C	1	10/26/2023 12:20	R338823
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**418**	mg/L	1	10/31/2023 12:12	R338603
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	10/30/2023 16:19	R338498
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.14**	mg/L	1	11/02/2023 15:27	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**6**	mg/L	1	10/30/2023 16:19	R338509
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.174**	mg/L	1	10/31/2023 15:55	213981
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	10/31/2023 15:55	213981
Boron	NELAP	0.0200		**0.0951**	mg/L	1	10/31/2023 15:55	213981
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	10/31/2023 15:55	213981
Calcium	NELAP	0.100		**103**	mg/L	1	10/31/2023 15:55	213981
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 15:55	213981
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 15:55	213981
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	10/31/2023 15:55	213981
Lithium	NELAP	0.0050		**0.0248**	mg/L	1	11/02/2023 10:17	213981
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	10/31/2023 15:55	213981
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/31/2023 19:47	213981
Arsenic	NELAP	0.0010		**0.0053**	mg/L	5	10/31/2023 19:47	213981
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/01/2023 14:21	213981
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/31/2023 19:47	213981
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/01/2023 12:04	214005
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/14/2023 0:00	R339861
Radium-228	*	0		**See Attached**	pci/L	1	11/14/2023 0:00	R339861

Client: City Water, Light & Power **Work Order:** 23101165

Client Project: FGDS Landfill **Report Date:** 30-Nov-23

Lab ID: 23101165-004 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 10/25/2023 10:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.99**	ft	1	10/25/2023 10:53	R338823
Depth to water	*	-5.00		**28.24**	ft	1	10/25/2023 10:53	R338823
Depth to water from measuring point	*	0		**30.42**	ft	1	10/25/2023 10:53	R338823
Elevation of groundwater surface	*	0		**524.38**	ft	1	10/25/2023 10:53	R338823
Measuring Point Elevation	*	0		**554.80**	ft	1	10/25/2023 10:53	R338823
Measuring Point Height Above Land Surface	*	0		**2.18**	ft	1	10/25/2023 10:53	R338823
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**39**	NTU	1	10/25/2023 10:53	R338823
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.9**	°F	1	10/25/2023 10:53	R338823
SW-846 9040B								
pH, Field	*	1.00		**7.01**		1	10/25/2023 10:53	R338823
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1410**	µmhos/cm @25C	1	10/25/2023 10:53	R338823
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**950**	mg/L	5	10/30/2023 11:50	R338538
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**223**	mg/L	10	10/27/2023 20:03	R338425
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.18**	mg/L	1	11/02/2023 15:40	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**135**	mg/L	5	10/27/2023 19:57	R338455
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.462**	mg/L	1	11/02/2023 10:50	213836
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/02/2023 10:50	213836
Boron	NELAP	0.0200		**0.387**	mg/L	1	11/02/2023 10:50	213836
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/02/2023 10:50	213836
Calcium	NELAP	0.100	S	**202**	mg/L	1	11/02/2023 10:50	213836
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 10:50	213836
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 10:50	213836
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/02/2023 10:50	213836
Lithium	NELAP	0.0050		**0.0496**	mg/L	1	11/02/2023 10:50	213836
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/02/2023 10:50	213836
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:34	213836
Arsenic	NELAP	0.0010		**0.0021**	mg/L	5	11/02/2023 19:34	213836
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:34	213836
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/02/2023 19:34	213836
PQL recovered outside upper control limits for Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/01/2023 12:13	214005
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/14/2023 0:00	R339861

Client: City Water, Light & Power **Work Order:** 23101165

Client Project: FGDS Landfill **Report Date:** 30-Nov-23

Lab ID: 23101165-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 10/25/2023 14:22

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**524.85**	ft	1	10/25/2023 14:22	R338823
Depth to water	*	-5.00		**7.12**	ft	1	10/25/2023 14:22	R338823
Depth to water from measuring point	*	0		**9.62**	ft	1	10/25/2023 14:22	R338823
Elevation of groundwater surface	*	0		**528.08**	ft	1	10/25/2023 14:22	R338823
Measuring Point Elevation	*	0		**537.70**	ft	1	10/25/2023 14:22	R338823
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	10/25/2023 14:22	R338823
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.8**	NTU	1	10/25/2023 14:22	R338823
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.0**	°F	1	10/25/2023 14:22	R338823
SW-846 9040B								
pH, Field	*	1.00		**6.21**		1	10/25/2023 14:22	R338823
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1790**	µmhos/cm @25C	1	10/25/2023 14:22	R338823
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1300**	mg/L	1	10/31/2023 12:13	R338603
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**366**	mg/L	20	10/30/2023 16:47	R338498
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.32**	mg/L	1	11/02/2023 15:43	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**61**	mg/L	5	10/30/2023 16:29	R338509
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.437**	mg/L	1	10/31/2023 15:56	213981
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	10/31/2023 15:56	213981
Boron	NELAP	0.0200		**1.88**	mg/L	1	10/31/2023 15:56	213981
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	10/31/2023 15:56	213981
Calcium	NELAP	0.100		**323**	mg/L	1	10/31/2023 15:56	213981
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 15:56	213981
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	10/31/2023 15:56	213981
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	10/31/2023 15:56	213981
Lithium	NELAP	0.0050		**0.0682**	mg/L	1	11/02/2023 10:21	213981
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	10/31/2023 15:56	213981
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/31/2023 19:57	213981
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	10/31/2023 19:57	213981
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/01/2023 14:32	213981
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/31/2023 19:57	213981
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/01/2023 12:15	214005
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/14/2023 0:00	R339861
Radium-228	*	0		**See Attached**	pci/L	1	11/14/2023 0:00	R339861

Client: City Water, Light & Power **Work Order:** 23101165

Client Project: FGDS Landfill **Report Date:** 30-Nov-23

Lab ID: 23101165-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 10/25/2023 12:01

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	10/25/2023 12:01	R338823
Depth to water	*	-5.00		**28.67**	ft	1	10/25/2023 12:01	R338823
Depth to water from measuring point	*	0		**30.54**	ft	1	10/25/2023 12:01	R338823
Elevation of groundwater surface	*	0		**525.06**	ft	1	10/25/2023 12:01	R338823
Measuring Point Elevation	*	0		**555.60**	ft	1	10/25/2023 12:01	R338823
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	10/25/2023 12:01	R338823
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**15**	NTU	1	10/25/2023 12:01	R338823
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.0**	°F	1	10/25/2023 12:01	R338823
SW-846 9040B								
pH, Field	*	1.00		**6.83**		1	10/25/2023 12:01	R338823
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1410**	µmhos/cm @25C	1	10/25/2023 12:01	R338823
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**1040**	mg/L	5	10/30/2023 11:50	R338538
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**293**	mg/L	10	10/27/2023 20:34	R338425
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.18**	mg/L	1	11/02/2023 15:47	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**31**	mg/L	1	10/27/2023 20:29	R338455
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.527**	mg/L	1	11/02/2023 11:46	213836
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/02/2023 11:46	213836
Boron	NELAP	0.0200		**3.09**	mg/L	1	11/02/2023 11:46	213836
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/02/2023 11:46	213836
Calcium	NELAP	0.100		**180**	mg/L	1	11/02/2023 11:46	213836
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 11:46	213836
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 11:46	213836
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/02/2023 11:46	213836
Lithium	NELAP	0.0050		**0.0433**	mg/L	1	11/02/2023 11:46	213836
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/02/2023 11:46	213836
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:22	213836
Arsenic	NELAP	0.0010		**0.0221**	mg/L	5	11/02/2023 19:22	213836
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:22	213836
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/02/2023 19:22	213836
PQL recovered outside upper control limits for Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/01/2023 12:20	214005
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/14/2023 0:00	R339861
Radium-228	*	0		**See Attached**	pci/L	1	11/14/2023 0:00	R339861

Client: City Water, Light & Power **Work Order:** 23101165

Client Project: FGDS Landfill **Report Date:** 30-Nov-23

Lab ID: 23101165-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 10/25/2023 11:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	10/25/2023 11:29	R338823
Depth to water	*	-5.00		**30.50**	ft	1	10/25/2023 11:29	R338823
Depth to water from measuring point	*	0		**32.24**	ft	1	10/25/2023 11:29	R338823
Elevation of groundwater surface	*	0		**522.16**	ft	1	10/25/2023 11:29	R338823
Measuring Point Elevation	*	0		**554.40**	ft	1	10/25/2023 11:29	R338823
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	10/25/2023 11:29	R338823
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.0**	NTU	1	10/25/2023 11:29	R338823
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.4**	°F	1	10/25/2023 11:29	R338823
SW-846 9040B								
pH, Field	*	1.00		**6.70**		1	10/25/2023 11:29	R338823
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1670**	µmhos/cm @25C	1	10/25/2023 11:29	R338823
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**1470**	mg/L	5	10/30/2023 11:50	R338538
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**554**	mg/L	20	10/27/2023 20:42	R338425
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.16**	mg/L	1	11/02/2023 15:48	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**40**	mg/L	1	10/27/2023 20:37	R338455
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.396**	mg/L	1	11/02/2023 11:48	213836
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/02/2023 11:48	213836
Boron	NELAP	0.0200		**12.0**	mg/L	1	11/02/2023 11:48	213836
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/02/2023 11:48	213836
Calcium	NELAP	0.100		**252**	mg/L	1	11/02/2023 11:48	213836
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 11:48	213836
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 11:48	213836
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/02/2023 11:48	213836
Lithium	NELAP	0.0050		**0.0567**	mg/L	1	11/02/2023 11:48	213836
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/02/2023 11:48	213836
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:28	213836
Arsenic	NELAP	0.0010		**0.0046**	mg/L	5	11/02/2023 19:28	213836
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 19:28	213836
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/02/2023 19:28	213836
PQL recovered outside upper control limits for Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/01/2023 12:22	214005
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/21/2023 0:00	R339861
Radium-228	*	0		**See Attached**	pci/L	1	11/21/2023 0:00	R339861

Client: City Water, Light & Power **Work Order:** 23101165

Client Project: FGDS Landfill **Report Date:** 30-Nov-23

Lab ID: 23101165-010 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 10/25/2023 13:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	10/25/2023 13:18	R338823
Depth to water	*	-5.00		**4.11**	ft	1	10/25/2023 13:18	R338823
Depth to water from measuring point	*	0		**7.41**	ft	1	10/25/2023 13:18	R338823
Elevation of groundwater surface	*	0		**522.57**	ft	1	10/25/2023 13:18	R338823
Measuring Point Elevation	*	0		**529.98**	ft	1	10/25/2023 13:18	R338823
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	10/25/2023 13:18	R338823
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**21**	NTU	1	10/25/2023 13:18	R338823
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.1**	°F	1	10/25/2023 13:18	R338823
SW-846 9040B								
pH, Field	*	1.00		**6.89**		1	10/25/2023 13:18	R338823
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1200**	µmhos/cm @25C	1	10/25/2023 13:18	R338823
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**850**	mg/L	5	10/30/2023 11:51	R338538
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		**163**	mg/L	5	10/27/2023 20:59	R338425
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.13**	mg/L	1	11/02/2023 15:54	R338693
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**32**	mg/L	1	10/27/2023 20:53	R338455
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.629**	mg/L	1	11/02/2023 11:51	213836
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/02/2023 11:51	213836
Boron	NELAP	0.0200		**2.92**	mg/L	1	11/02/2023 11:51	213836
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/02/2023 11:51	213836
Calcium	NELAP	0.100		**151**	mg/L	1	11/02/2023 11:51	213836
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 11:51	213836
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/02/2023 11:51	213836
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	11/02/2023 11:51	213836
Lithium	NELAP	0.0050		**0.0381**	mg/L	1	11/02/2023 11:51	213836
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/02/2023 11:51	213836
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 20:22	213836
Arsenic	NELAP	0.0010		**0.0266**	mg/L	5	11/02/2023 20:22	213836
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/02/2023 20:22	213836
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/02/2023 20:22	213836
PQL recovered outside upper control limits for Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/01/2023 12:43	214030
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/21/2023 0:00	R339861
Radium-228	*	0		**See Attached**	pci/L	1	11/21/2023 0:00	R339861

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 23101165
Report Date: 30-Nov-23

Carrier: Justin Colp

Received By: HAW

Completed by: Timothy W. Mathis
On: 26-Oct-23

Reviewed by: Ellie Hopkins
On: 27-Oct-23

Pages to follow: Chain of custody 2 Extra pages included 45

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 4.8
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #90719 CET. - TMathis - 10/26/2023 12:50:41 PM

Additional Nitric Acid (92447) was needed in AW-2 250 and G120 2L upon arrival at the laboratory. - TMathis - 10/26/2023 12:55:07 PM

pH strip #90719. - amberdilallo - 10/27/2023 9:46:53 AM

Samples collected on 10/26/23 were delivered to the laboratory on 10/26/23 at 1707 (on ice - 2.4C - LTG1). - HW/ERH 10/27/23

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 23101165

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 4.8 °C CT 6.5
Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: pH in 2719, A2282 HNO3 (9244) to AW-2 250m and G120 2L. CAS 10-26-23.

Client Comments: *TE 1234 SAH 11/7/23
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 23101164-001

PROJECT NAME/NUMBER: FGDS Landfill
SAMPLE COLLECTOR'S NAME: Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23101165-001	R101	10-25-23 / 1442	Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	G110		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	R111		Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	G112	10-25-23 / 1053	Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	G113		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	G120	10-25-23 / 1339	Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	G121	1201	Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	G122	1129	Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AW-1	0959	Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AW-2	1318	Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	RW-3 ⊛	* 1235	Groundwater	0	0								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	10-25-23 1715	[signature]	10/25/23 1715

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CAO 10/26/23

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 23101165

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 2.4 °C (TC#1)
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: 9019 Sum 10/27/23

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 23101164-001

PROJECT NAME/NUMBER: FGDS Landfill
SAMPLE COLLECTOR'S NAME: Justin Gilp

RESULTS REQUESTED: [✓] Standard [ ] 1-2 Day (100% Surcharge) [ ] Other [ ] 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
23101165-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G110	10-25-23/1220	Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	R111	10-25-23/1135	Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	G113 *	10-25-23/~~1422~~	Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	G120	10/25 1422 1415	Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	G121	TE SAN 11/7/23	Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	G122		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	RW-3 ⊛		Groundwater	0	0								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Brett Gilp	10-26-23 17:07	Hardin Wa	10/26/23 1707

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Summary
CWLP- 4Q 2023

			Weather				Well Condition				
WO Sample	**Well ID**	**Program/ Sample Type**	**Temp (°F)**	**Precipitation**	**Wind Direction**	**Sky**	**Well Pad**	**Casing**	**Protective Cover**	**Reference Mark/ ID**	**Well Locked**
001	R101	Groundwater Sample	74.0	None	S	Clear	Good	Good	Good	Yes	**No**
002	G110	Groundwater Sample	71.0	Light	S	Cloudy	Good	Good	Good	**No**	**No**
003	R111	Groundwater Sample	71.0	None	S	Cloudy	Good	Good	Good	Yes	**No**
004	G112	Groundwater Sample	64.0	None	SW	Cloudy	Good	Good	Good	Yes	**No**
005	G113	Groundwater Sample	73.0	None	S	Clear	Good	Good	Good	Yes	**No**
006	G120	Groundwater Sample	71.0	None	S	Clear	Good	Good	Good	Yes	**No**
007	G121	Groundwater Sample	68.0	None	S	Cloudy	Good	Good	Good	Yes	**No**
008	G122	Groundwater Sample	67.0	None	S	Partly cloudy	Good	Good	Good	Yes	**No**
009	AW-1	Groundwater Sample	64.0	None	SW	Cloudy	Good	Good	Good	Yes	**No**
010	AW-2	Groundwater Sample	71.0	None	S	Partly cloudy	Good	Good	Good	Yes	**No**
011	RW-3	Groundwater Sample	70.0	None	S	Clear	Good	Good	Good	**No**	**No**

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Summary
CWLP- 4Q 2023

		GW Level Measurement				Purge Activities							
WO Sample	**Well ID**	**Sampler Initials**	**Date/Time**	**DTW (ft)**	**DTB (ft)**	**Sampler Initials**	**Purge Date**			**Sampling Device**	**Well Diameter (in)**	**Actual Volume Purged (L)**	**Purge Rate (mL/min)**
001	R101	BG	10/25/23 14:35	8.73	35.27	BG	10/25/2023	14:34	14:42	Submersible Pump	2"	3.0	375.0
002	G110	TAC	10/26/23 12:00	25.72	57.15	TAC	10/26/2023	12:05	12:20	Peristaltic Pump	2"	3.5	233.3
003	R111	TAC	10/26/23 11:14	26.87	55.75	TAC	10/26/2023	11:18	11:35	Submersible Pump	2"	6.0	352.9
004	G112	BG	10/25/23 10:22	30.42	58.81	BG	10/25/2023	10:23	10:53	Submersible Pump	2"	7.0	233.3
005	G113	BG	10/25/23 14:10	9.62	12.85	BG	10/25/2023	14:11	14:22	Submersible Pump	2"	3.0	272.7
006	G120	bg	10/25/23 13:30	18.61	50.37	BG	10/25/2023	13:32	13:39	Submersible Pump	2"	2.0	285.7
007	G121	BG	10/25/23 11:39	30.54	58.56	BG	10/25/2023	11:40	12:01	Submersible Pump	2"	8.0	381.0
008	G122	BG	10/25/23 11:07	32.24	49.29	BG	10/25/2023	11:09	11:29	Submersible Pump	2"	7.0	350.0
009	AW-1	BG	10/25/23 9:25	17.38	54.81	BG	10/25/2023	09:28	09:59	Submersible Pump	2"	7.0	225.8
010	AW-2	BG	10/25/23 12:51	7.41	32.64	BG	10/25/2023	12:52	13:18	Submersible Pump	2"	6.0	230.8
011	RW-3	BG	10/26/23 12:26	11.79	44.01	BG	10/25/2023	12:24	12:35	Bladder Pump	2"	2.0	181.8

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Summary
CWLP- 4Q 2023

WO Sample	Well ID	Sampling Activities and Observations									
		Sampler Initials	Date	Sample Time	Sampling Method	Field Filtered	Appearance	Odor	Color	Post-Sample DTW (ft)	Drawdown (ft)
001	R101	BG	10/25/23	14:42	Low Flow	Yes	Clear	Slight	clear	10.19	**1.46**
002	G110	TAC	10/26/23	12:20	Low Flow	Yes	Clear	None	Lt Brown	26.68	0.96
003	R111	TAC	10/26/23	11:35	Low Flow	Yes	Clear	None	Lt Brown	27.23	0.36
004	G112	BG	10/25/23	10:53	Low Flow	Yes	Slightly cloudy	Slight	clear	34.62	**4.20**
005	G113	BG	10/25/23	14:22	Low Flow	Yes	Clear	Slight	clear	12.85	**3.23**
006	G120	BG	10/25/23	13:39	Low Flow	Yes	Clear	None	clear	19.72	**1.11**
007	G121	BG	10/25/23	12:01	Low Flow	Yes	Clear	None	Clear	31.61	**1.07**
008	G122	BG	10/25/23	11:29	Low Flow	Yes	Clear	Strong	Clear	31.45	-0.79
009	AW-1	bg	10/25/23	09:59	Low Flow	Yes	Slightly cloudy	Moderate	clear	20.81	**3.43**
010	AW-2	BG	10/25/23	13:18	Low Flow	Yes	Clear	None	clear	7.65	0.24
011	RW-3	bg	10/25/23	12:34	Low Flow	Yes	Clear	Slight	CLEAR	14.45	**2.66**

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Summary
CWLP- 4Q 2023

WO Sample	Well ID	COMMENTS
001	R101	
002	G110	
003	R111	
004	G112	
005	G113	went dry during filling, filled on 10-26 at 1415
006	G120	
007	G121	
008	G122	
009	AW-1	
010	AW-2	
011	RW-3	GW Level measurement time should be 1226 not 1504. logged this in the worng column

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Stabilized Field Parameters Summary
CWLP- 4Q 2023

Well ID	Date	Time	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	DTB (ft)	DTW (ft)	LIMS ID
R101	10/25/2023	14:42	14.6	58.2	6.81	1,201.5	1,201.5	2.81	13.78	-76.1	35.27	8.73	23101165-001A
G110	10/26/2023	12:20	16.6	61.8	6.84	603.1	603.1	2.93	2.89	-105.0	57.15	25.72	23101165-002A
R111	10/26/2023	11:35	14.6	58.3	6.42	87.5	87.5	0.81	7.18	40.6	55.75	26.87	23101165-003A
G112	10/25/2023	10:53	14.9	58.9	7.01	1,406.9	1,406.9	0.72	39.35	-116.2	58.81	30.42	23101165-004A
G113	10/25/2023	14:22	17.2	63.0	6.21	1,793.3	1,793.3	1.36	7.81	-150.8	12.85	9.62	23101165-005A
G120	10/25/2023	13:39	17.3	63.2	6.78	1,775.7	1,775.7	1.36	8.15	-80.0	50.37	18.61	23101165-006A
G121	10/25/2023	12:01	15.0	59.0	6.83	1,409.2	1,409.2	0.71	14.82	-111.9	58.56	30.54	23101165-007A
G122	10/25/2023	11:29	14.7	58.4	6.70	1,666.1	1,666.1	0.82	7.04	-88.9	49.29	32.24	23101165-008A
AW-1	10/25/2023	9:59	15.1	59.1	6.54	1,449.2	1,449.2	0.86	80.77	-89.9	54.81	17.38	23101165-009A
AW-2	10/25/2023	13:18	16.7	62.1	6.89	1,198.1	1,198.1	0.92	20.56	-115.0	32.64	7.41	23101165-010A
RW-3	10/25/2023	12:34	15.7	60.2	7.31	632.4	632.4	1.39	8.60	-125.8	44.01	11.79	23101165-011A

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
R101	10/25/2023	14:36	8.73	13.6	56.4	7.00	1,208.2	1,208.2	3.95	13.42	-104.5
R101	10/25/2023	14:39	8.73	14.0	57.2	6.86	1,203.6	1,203.6	2.99	12.73	-85.3
R101	10/25/2023	14:42	8.73	14.6	58.2	6.81	1,201.5	1,201.5	2.81	13.78	-76.1

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G110	10/26/2023	12:14	25.72	16.7	62.1	6.86	606.4	606.4	3.54	3.27	-108.7
G110	10/26/2023	12:17	25.72	16.6	61.9	6.85	604.5	604.5	3.15	2.77	-106.0
G110	10/26/2023	12:20	25.72	16.6	61.8	6.84	603.1	603.1	2.93	2.89	-105.0

Site Samping Event: CWLP- 4Q 2023 **Groundwater Sampling Field Form- Groundwater Quality Parameters**
LIMS Workorder: 23101165 **CWLP- 4Q 2023**
Technician(s): JC, BG

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G112	10/25/2023	10:26	30.42	14.7	58.5	7.03	1,467.7	1,467.7	3.81	13.11	-64.9
G112	10/25/2023	10:29	30.42	14.8	58.7	7.00	1,466.2	1,466.2	2.24	14.96	-88.7
G112	10/25/2023	10:32	30.42	15.0	59.0	7.01	1,465.6	1,465.6	1.66	17.03	-99.1
G112	10/25/2023	10:35	30.42	14.7	58.5	7.01	1,468.9	1,468.9	1.35	20.96	-105.5
G112	10/25/2023	10:38	30.42	14.7	58.5	7.02	1,464.1	1,464.1	1.14	25.49	-109.5
G112	10/25/2023	10:41	30.42	15.2	59.3	7.01	1,455.7	1,455.7	0.99	29.35	-112.3
G112	10/25/2023	10:44	30.42	15.7	60.2	7.01	1,447.9	1,447.9	0.88	32.21	-114.4
G112	10/25/2023	10:47	30.42	15.7	60.2	7.01	1,442.7	1,442.7	0.81	35.27	-115.7
G112	10/25/2023	10:50	30.42	15.4	59.7	7.01	1,426.0	1,426.0	0.76	37.25	-116.2
G112	10/25/2023	10:53	30.42	14.9	58.9	7.01	1,406.9	1,406.9	0.72	39.35	-116.2

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G113	10/25/2023	14:13	9.62	17.2	62.9	6.23	1,811.9	1,811.9	3.63	27.15	-100.8
G113	10/25/2023	14:16	9.62	17.2	63.0	6.17	1,806.8	1,806.8	2.18	21.61	-122.1
G113	10/25/2023	14:19	9.62	17.2	62.9	6.19	1,807.4	1,807.4	1.63	12.74	-137.5
G113	10/25/2023	14:22	9.62	17.2	63.0	6.21	1,793.3	1,793.3	1.36	7.81	-150.8

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G121	10/25/2023	11:49	30.54	14.7	58.5	6.83	1,402.0	1,402.0	1.10	17.33	-86.3
G121	10/25/2023	11:52	30.54	15.1	59.1	6.83	1,405.7	1,405.7	0.94	15.48	-97.8
G121	10/25/2023	11:55	30.54	15.2	59.3	6.83	1,408.8	1,408.8	0.84	13.70	-104.5
G121	10/25/2023	11:58	30.54	15.1	59.1	6.83	1,409.9	1,409.9	0.77	14.05	-108.9
G121	10/25/2023	12:01	30.54	15.0	59.0	6.83	1,409.2	1,409.2	0.71	14.82	-111.9

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G122	10/25/2023	11:23	32.24	14.6	58.3	6.72	1,623.5	1,623.5	1.12	15.04	-76.0
G122	10/25/2023	11:26	32.24	14.7	58.4	6.70	1,650.4	1,650.4	0.92	9.29	-83.4
G122	10/25/2023	11:29	32.24	14.7	58.4	6.70	1,666.1	1,666.1	0.82	7.04	-88.9

Site Samping Event: CWLP- 4Q 2023
LIMS Workorder: 23101165
Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters
CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond (µS/cm)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AW-2	10/25/2023	12:54	7.41	16.7	62.0	6.96	1,151.6	1,151.6	3.89	16.12	-66.3
AW-2	10/25/2023	12:57	7.41	17.1	62.7	6.90	1,179.7	1,179.7	2.15	14.72	-90.5
AW-2	10/25/2023	13:00	7.41	17.2	62.9	6.89	1,192.8	1,192.8	1.72	28.68	-98.4
AW-2	10/25/2023	13:03	7.41	17.0	62.6	6.89	1,198.4	1,198.4	1.46	35.49	-103.8
AW-2	10/25/2023	13:06	7.41	17.1	62.7	6.89	1,199.1	1,199.1	1.27	29.18	-107.5
AW-2	10/25/2023	13:09	7.41	16.8	62.3	6.89	1,200.0	1,200.0	1.13	25.13	-110.4
AW-2	10/25/2023	13:12	7.41	16.7	62.1	6.89	1,198.6	1,198.6	1.05	25.23	-112.5
AW-2	10/25/2023	13:15	7.41	16.6	61.9	6.89	1,198.8	1,198.8	0.99	20.08	-113.7
AW-2	10/25/2023	13:18	7.41	16.7	62.1	6.89	1,198.1	1,198.1	0.92	20.56	-115.0

First Quarter 2024

March 18, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 24010117

Dear Eric Staley:

TEKLAB, INC received 15 samples on 2/26/2024 6:45:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24010117
Report Date: 18-Mar-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	27
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24010117

Client Project: Ash Pond Monitoring Wells **Report Date:** 18-Mar-24

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 24010117
Client Project: Ash Pond Monitoring Wells
Report Date: 18-Mar-24

Qualifiers

- Unknown hydrocarbon
B - Analyte detected in associated Method Blank
C - RL shown is a Client Requested Quantitation Limit
E - Value above quantitation range
H - Holding times exceeded
I - Associated internal standard was outside method criteria
J - Analyte detected below quantitation limits
M - Manual Integration used to determine area response
ND - Not Detected at the Reporting Limit
R - RPD outside accepted recovery limits
S - Spike Recovery outside recovery limits
T - TIC(Tentatively identified compound)
X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24010117
Client Project: Ash Pond Monitoring Wells
Report Date: 18-Mar-24

Cooler Receipt Temp: 3.3 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24010117

Client Project: Ash Pond Monitoring Wells

Report Date: 18-Mar-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power
Work Order: 24010117
Client Project: Ash Pond Monitoring Wells
Report Date: 18-Mar-24
Lab ID: 24010117-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 02/21/2024 11:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	02/21/2024 11:38	R343702
Depth to water	*	-5.00		**6.40**	ft	1	02/21/2024 11:38	R343702
Depth to water from measuring point	*	0		**9.10**	ft	1	02/21/2024 11:38	R343702
Elevation of groundwater surface	*	0		**530.40**	ft	1	02/21/2024 11:38	R343702
Measuring Point Elevation	*	0		**539.50**	ft	1	02/21/2024 11:38	R343702
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	02/21/2024 11:38	R343702
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**120**	NTU	1	02/21/2024 11:38	R343702
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.2**	°F	1	02/21/2024 11:38	R343702
SW-846 9040B								
pH, Field	*	1.00		**7.10**		1	02/21/2024 11:38	R343702
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**648**	µmhos/cm @25C	1	02/21/2024 11:38	R343702
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**335**	mg/L	2.5	02/23/2024 9:53	R343558
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**14**	mg/L	1	02/22/2024 22:24	R343452
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.37**	mg/L	1	02/23/2024 13:07	R343485
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**27**	mg/L	1	02/22/2024 22:24	R343454
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.166**	mg/L	1	02/26/2024 18:50	219117
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/26/2024 18:50	219117
Boron	NELAP	0.0200		**0.116**	mg/L	1	02/26/2024 18:50	219117
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/26/2024 18:50	219117
Calcium	NELAP	0.100		**63.4**	mg/L	1	02/26/2024 18:50	219117
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 18:50	219117
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 18:50	219117
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/26/2024 18:50	219117
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 18:50	219117
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/26/2024 18:50	219117
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 2:18	219117
Arsenic	NELAP	0.0010		**0.306**	mg/L	5	02/28/2024 2:18	219117
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 2:18	219117
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/28/2024 2:18	219117
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/23/2024 15:29	219103
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344494
Radium-228	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344494

Client: City Water, Light & Power
Work Order: 24010117
Client Project: Ash Pond Monitoring Wells
Report Date: 18-Mar-24
Lab ID: 24010117-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 02/22/2024 11:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	02/22/2024 11:24	R343702
Depth to water	*	-5.00		**4.61**	ft	1	02/22/2024 11:24	R343702
Depth to water from measuring point	*	0		**7.11**	ft	1	02/22/2024 11:24	R343702
Elevation of groundwater surface	*	0		**528.99**	ft	1	02/22/2024 11:24	R343702
Measuring Point Elevation	*	0		**536.10**	ft	1	02/22/2024 11:24	R343702
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	02/22/2024 11:24	R343702
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**20**	NTU	1	02/22/2024 11:24	R343702
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.6**	°F	1	02/22/2024 11:24	R343702
SW-846 9040B								
pH, Field	*	1.00		**6.41**		1	02/22/2024 11:24	R343702
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1190**	µmhos/cm @25C	1	02/22/2024 11:24	R343702
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1020**	mg/L	2.5	02/23/2024 12:34	R343558
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**393**	mg/L	20	02/23/2024 12:55	R343641
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.21**	mg/L	1	02/23/2024 13:26	R343485
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**39**	mg/L	2	02/23/2024 12:50	R343643
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0678**	mg/L	1	02/26/2024 19:01	219117
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/26/2024 19:01	219117
Boron	NELAP	0.0200		**3.38**	mg/L	1	02/26/2024 19:01	219117
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/26/2024 19:01	219117
Calcium	NELAP	0.100		**210**	mg/L	1	02/26/2024 19:01	219117
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:01	219117
Cobalt	NELAP	0.0050		**0.0068**	mg/L	1	02/26/2024 19:01	219117
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/26/2024 19:01	219117
Lithium	NELAP	0.0050		**0.0059**	mg/L	1	02/26/2024 19:01	219117
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/26/2024 19:01	219117
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 2:30	219117
Arsenic	NELAP	0.0010		**0.0027**	mg/L	5	02/28/2024 2:30	219117
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 2:30	219117
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/28/2024 2:30	219117
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/23/2024 15:33	219103
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344494
Radium-228	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344494

Client: City Water, Light & Power **Work Order:** 24010117

Client Project: Ash Pond Monitoring Wells **Report Date:** 18-Mar-24

Lab ID: 24010117-004 **Client Sample ID:** AP-3

Matrix: GROUNDWATER **Collection Date:** 02/22/2024 12:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	02/22/2024 12:03	R343702
Depth to water	*	-5.00		**7.62**	ft	1	02/22/2024 12:03	R343702
Depth to water from measuring point	*	0		**9.32**	ft	1	02/22/2024 12:03	R343702
Elevation of groundwater surface	*	0		**526.08**	ft	1	02/22/2024 12:03	R343702
Measuring Point Elevation	*	0		**535.40**	ft	1	02/22/2024 12:03	R343702
Measuring Point Height Above Land Surface	*	0		**1.70**	ft	1	02/22/2024 12:03	R343702
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**22**	NTU	1	02/22/2024 12:03	R343702
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.0**	°F	1	02/22/2024 12:03	R343702
SW-846 9040B								
pH, Field	*	1.00		**6.55**		1	02/22/2024 12:03	R343702
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1050**	µmhos/cm @25C	1	02/22/2024 12:03	R343702
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**935**	mg/L	2.5	02/23/2024 12:34	R343558
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**512**	mg/L	20	02/23/2024 13:03	R343641
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.17**	mg/L	1	02/23/2024 13:28	R343485
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**54**	mg/L	2	02/23/2024 12:58	R343643
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0952**	mg/L	1	02/26/2024 19:02	219117
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/26/2024 19:02	219117
Boron	NELAP	0.0200		**14.8**	mg/L	1	02/26/2024 19:02	219117
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/26/2024 19:02	219117
Calcium	NELAP	0.100		**177**	mg/L	1	02/26/2024 19:02	219117
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:02	219117
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:02	219117
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/26/2024 19:02	219117
Lithium	NELAP	0.0050		**0.0062**	mg/L	1	02/26/2024 19:02	219117
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/26/2024 19:02	219117
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 11:23	219117
Arsenic	NELAP	0.0010		**0.0101**	mg/L	5	02/28/2024 3:18	219117
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 3:18	219117
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/28/2024 3:18	219117
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/23/2024 15:36	219103
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344494
Radium-228	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344494

Client: City Water, Light & Power **Work Order:** 24010117

Client Project: Ash Pond Monitoring Wells **Report Date:** 18-Mar-24

Lab ID: 24010117-008 **Client Sample ID:** AP-7

Matrix: GROUNDWATER **Collection Date:** 02/26/2024 14:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	02/26/2024 14:20	R343702
Depth to water	*	-5.00		**8.42**	ft	1	02/26/2024 14:20	R343702
Depth to water from measuring point	*	0		**11.08**	ft	1	02/26/2024 14:20	R343702
Elevation of groundwater surface	*	0		**527.94**	ft	1	02/26/2024 14:20	R343702
Measuring Point Elevation	*	0		**539.02**	ft	1	02/26/2024 14:20	R343702
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	02/26/2024 14:20	R343702
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**34**	NTU	1	02/26/2024 14:20	R343702
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.2**	°F	1	02/26/2024 14:20	R343702
SW-846 9040B								
pH, Field	*	1.00		**7.15**		1	02/26/2024 14:20	R343702
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**646**	µmhos/cm @25C	1	02/26/2024 14:20	R343702
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**330**	mg/L	5	02/28/2024 7:46	R343743
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**17**	mg/L	1	02/28/2024 17:04	R343726
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.44**	mg/L	1	02/27/2024 9:22	R343589
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**42**	mg/L	1	02/28/2024 17:04	R343732
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.118**	mg/L	1	02/29/2024 16:41	219241
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/29/2024 16:41	219241
Boron	NELAP	0.0200		**0.173**	mg/L	1	02/29/2024 16:41	219241
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/29/2024 16:41	219241
Calcium	NELAP	0.100	B	**55.6**	mg/L	1	02/29/2024 16:41	219241
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/29/2024 16:41	219241
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/29/2024 16:41	219241
Lead	NELAP	0.0150	B	**< 0.0150**	mg/L	1	02/29/2024 16:41	219241
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/29/2024 16:41	219241
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/29/2024 16:41	219241
Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
Contamination present in the MBLK for Pb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/29/2024 0:00	219241
Arsenic	NELAP	0.0010		**0.0555**	mg/L	5	03/01/2024 12:00	219241
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/29/2024 0:00	219241
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	03/01/2024 4:48	219241
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	03/04/2024 17:37	219343
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344494

Client: City Water, Light & Power
Work Order: 24010117
Client Project: Ash Pond Monitoring Wells
Report Date: 18-Mar-24
Lab ID: 24010117-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 02/26/2024 14:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344494

Client: City Water, Light & Power
Work Order: 24010117
Client Project: Ash Pond Monitoring Wells
Report Date: 18-Mar-24
Lab ID: 24010117-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 02/21/2024 12:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	02/21/2024 12:24	R343702
Depth to water	*	-5.00		**1.58**	ft	1	02/21/2024 12:24	R343702
Depth to water from measuring point	*	0		**4.48**	ft	1	02/21/2024 12:24	R343702
Elevation of groundwater surface	*	0		**532.72**	ft	1	02/21/2024 12:24	R343702
Measuring Point Elevation	*	0		**537.20**	ft	1	02/21/2024 12:24	R343702
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	02/21/2024 12:24	R343702
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.7**	NTU	1	02/21/2024 12:24	R343702
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.3**	°F	1	02/21/2024 12:24	R343702
SW-846 9040B								
pH, Field	*	1.00		**6.83**		1	02/21/2024 12:24	R343702
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**861**	µmhos/cm @25C	1	02/21/2024 12:24	R343702
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**520**	mg/L	2.5	02/23/2024 10:04	R343558
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	02/22/2024 22:34	R343452
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.26**	mg/L	1	02/23/2024 13:23	R343485
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**24**	mg/L	1	02/22/2024 22:34	R343454
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.374**	mg/L	1	02/26/2024 19:07	219117
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/26/2024 19:07	219117
Boron	NELAP	0.0200		**0.0866**	mg/L	1	02/26/2024 19:07	219117
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/26/2024 19:07	219117
Calcium	NELAP	0.100		**99.3**	mg/L	1	02/26/2024 19:07	219117
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:07	219117
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:07	219117
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/26/2024 19:07	219117
Lithium	NELAP	0.0050		**0.0069**	mg/L	1	02/26/2024 19:07	219117
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/26/2024 19:07	219117
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 3:36	219117
Arsenic	NELAP	0.0010		**0.0426**	mg/L	5	02/28/2024 3:36	219117
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 3:36	219117
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/28/2024 3:36	219117
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/23/2024 15:54	219103
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344494
Radium-228	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344494

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24010117
Report Date: 18-Mar-24

Carrier: Tracy Carroll

Received By: AMD

Completed by: Amber Dilallo
On: 22-Feb-24

Reviewed by: Ellie Hopkins
On: 27-Feb-24

Pages to follow: Chain of custody 6 Extra pages included 50

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 3.3
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #90719. - amberdilallo - 2/22/2024 8:40:42 AM

Samples were received on 2/22/24 at 15:40 on ice [7.3C - LTG5]. pH strip #90719. Collection date per Tracy Carroll. - amberdilallo - 2/22/2024 4:41:18 PM

Samples were received on 2/23/24 at 13:07 on ice [6.7C - LTG#7]. pH strip #90719. Additional Nitric Acid (96331) preservative was needed for AP-4 & AP-14 upon arrival at the laboratory. - nickreed - 2/23/2024 2:35:40 PM

Samples were received on 2/26/24 at 18:45 on ice [5.3c - LTG5]. pH strip #90719. - amberdilallo - 2/27/2024 8:11:24 AM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24010117

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 3.3 °C
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY LTGS
LAB NOTES: 40719 SM 2/22/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: TCarroll

RESULTS REQUESTED: [✓] Standard [ ] 1-2 Day (100% Surcharge) [ ] Other ____ [ ] 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24010117-001	RW-3	2/21/24 1138	Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1	2/21/24 1341	Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8	2/21/24 1224	Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10	2/21/24 1436	Groundwater	1	2								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carroll	2/21/24 1715	Shaun Dalla	2/21/24 1715

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 24010117

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 7.3 °C
Preserved in: ☐ LAB ☒ FIELD
FOR LAB USE ONLY
LAB NOTES: 9019 Dup Wapy

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring
Date per Tracy Carroll. SMM 2/22/24

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: TCarrd

RESULTS REQUESTED: ☑ Standard ☐ 1-2 Day (100% Surcharge) ☐ Other ☐ 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	CIF SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24010117-001	RW-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	AP-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	AP-2	2/22/24 1124	Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	AP-3	1203	Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	AP-5	1344	Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	AP-6	1540	Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	AP-7		Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AP-8		Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AP-9		Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	AP-10		Groundwater	1	2								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carroll	2/22/24 1540	Emily Sackett	2/22/24 1540

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24010117

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 6.7 °C 7
Preserved in: [x] LAB [ ] FIELD
FOR LAB USE ONLY
LAB NOTES: ph ✓ 9071a added HNO3 (96331) ES 2/23/24 to 2 liters

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
TCarroll

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity								
24010117-001	RW-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
002	AP-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
005	AP-4	2/23/24 1121	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓								

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carroll	2/23/24 1:07	Whitney Dunger	2/23/24 1:07

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24010117

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
TCarrell

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24010117-012	AP-11		Groundwater	1	2								✓	✓	✓	✓	✓	✓
013	AP-12		Groundwater	1	2								✓	✓	✓	✓	✓	✓
014	AP-13		Groundwater	1	2								✓	✓	✓	✓	✓	✓
015	AP-14	2/23/24 1025	Groundwater	1	2								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carrell	2/23/24 1:07	Whitney Lewis	2/23/24 1:35

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24010117

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 5.3 °C
Preserved in: ☐ LAB ☑ FIELD FOR LAB USE ONLY LTG 5
LAB NOTES: 901A SM 2/27/24

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: TCarroll

RESULTS REQUESTED: ☑ Standard ☐ 1-2 Day (100% Surcharge) ☐ Other ☐ 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24010117-001	RW-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	AP-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	AP-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	AP-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	AP-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	AP-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	AP-7	2/26/24 1420	Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AP-8		Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AP-9	2/26/24 1350	Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	AP-10		Groundwater	1	2								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carroll	2/26/24 1845	[illegible]	2/26/24 1845

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24010117

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE ____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:
AP-11, AP-12 & AP-13 filtered per Tracy Carroll SM 2/27/24

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: TCarroll

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24010117 01	AP-11	2/26/24 1108	Groundwater	1	2								✔	✔	✔	✔	✔	✔
02	AP-12	1200	Groundwater	1	2								✔	✔	✔	✔	✔	✔
03	AP-13	1234	Groundwater	1	2								✔	✔	✔	✔	✔	✔
04	AP-14		Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carroll	2/26/24 1845	SMcDaniel	2/26/24 1845

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Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- Ash Pond- 1Q 2024

			Weather				Well Condition				
WO Sample	**Well ID**	**Program/ Sample Type**	**Temp (°F)**	**Precipitation**	**Wind Direction**	**Sky**	**Well Pad**	**Casing**	**Protective Cover**	**Reference Mark/ ID**	**Well Locked**
001	RW-3	Groundwater Sample	57.0	None	N	Clear	Good	Good	Good	Yes	**No**
002	AP-1	Groundwater Sample	59.0	None	N	Clear	Good	Good	Good	**No**	**No**
003	AP-2	Groundwater Sample	60.0	None	W	Cloudy	Good	Good	Good	**No**	**No**
004	AP-3	Groundwater Sample	62.0	None	W	Clear	Good	Good	Good	Yes	**No**
005	AP-4	Groundwater Sample	50.0	None	SE	Clear	Good	Good	Good	Yes	**No**
006	AP-5	Groundwater Sample	63.0	None	W	Clear	Good	Good	Good	Yes	**No**
007	AP-6	Groundwater Sample	60.0	None	W	Cloudy	Good	Good	Good	**No**	**No**
008	AP-7	Groundwater Sample	74.0	None	N	Clear	Good	Good	Good	**No**	**No**
009	AP-8	Groundwater Sample	57.0	None	N	Clear	Good	Good	Good	**No**	**No**
010	AP-9	Groundwater Sample	74.0	None	N	Clear	Good	Good	Good	**No**	**No**
011	AP-10	Groundwater Sample	60.0	None	N	Clear	Good	Good	Good	**No**	**No**
012	AP-11	Groundwater Sample	64.0	None	N	Clear	Good	Good	Good	**No**	**No**
013	AP-12	Groundwater Sample	67.0	None	N	Clear	Good	Good	Good	**No**	**No**
014	AP-13	Groundwater Sample	70.0	None	N	Clear	Good	Good	Good	**No**	**No**
015	AP-14	Groundwater Sample	45.0	None	SE	Clear	Good	Good	Good	Yes	**No**

Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- Ash Pond- 1Q 2024

		GW Level Measurement				Purge Activities							
WO Sample	**Well ID**	**Sampler Initials**	**Date/Time**	**DTW (ft)**	**DTB (ft)**	**Sampler Initials**	**Purge Date**	**Purge Start Time**	**Purge End Time**	**Purging Device**	**Well Diameter (in)**	**Actual Volume Purged (L)**	**Purge Rate (mL/min)**
001	RW-3	DC	2/21/24 11:20	9.10	44.01	DC	2/21/2024	11:21	11:38	Bladder Pump	2"	4.0	235.3
002	AP-1	DC	2/21/24 12:42	8.48	31.08	DC	2/21/2024	13:27	13:41	Bladder Pump	2"	3.0	214.3
003	AP-2	DC	2/22/24 10:58	7.11	21.33	DC	2/22/2024	10:59	11:24	Bladder Pump	2"	6.0	240.0
004	AP-3	DC	2/22/24 11:44	9.32	-	DC	2/22/2024	11:45	12:03	Bladder Pump	2"	4.0	222.2
005	AP-4	DC	2/23/24 10:46	9.04	60.41	DC	2/23/2024	10:47	11:21	Bladder Pump	2"	9.0	264.7
006	AP-5	DC	2/22/24 13:21	15.95	31.27	DC	2/22/2024	13:22	13:44	Bladder Pump	2"	5.0	227.3
007	AP-6	DC	2/22/24 10:22	7.85	39.62	DC	2/22/2024	10:24	10:40	Bladder Pump	2"	3.0	187.5
008	AP-7	DC	2/26/24 14:04	11.08	42.52	DC	2/26/2024	14:05	14:20	Bladder Pump	2"	3.0	200.0
009	AP-8	DC	2/21/24 12:07	4.48	39.60	DC	2/21/2024	12:08	12:24	Peristaltic Pump	2"	4.0	250.0
010	AP-9	DC	2/26/24 13:27	12.05	39.60	DC	2/26/2024	13:30	13:50	Peristaltic Pump	2"	5.0	250.0
011	AP-10	DC	2/21/24 14:04	2.82	38.07	DC	2/21/2024	14:05	14:36	Peristaltic Pump	2"	6.0	193.5
012	AP-11	DC	2/26/24 10:46	14.42	22.95	DC	2/26/2024	10:50	11:08	Peristaltic Pump	2"	4.0	222.2
013	AP-12	DC	2/26/24 11:22	17.35	30.40	DC	2/26/2024	11:22	12:00	Peristaltic Pump	2"	8.0	210.5
014	AP-13	DC	2/26/24 12:11	17.10	31.00	DC	2/26/2024	12:12	12:34	Peristaltic Pump	2"	6.0	272.7
015	AP-14	DC	2/23/24 9:57	1.72	31.20	DC	2/23/2024	09:58	10:25	Peristaltic Pump	2"	6.0	222.2

Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- Ash Pond- 1Q 2024

		Sampling Activities and Observations									
WO Sample	**Well ID**	**Sampler Initials**	**Date**	**Time**	**Sampling Method**	**Field Filtered**	**Appearance**	**Odor**	**Color**	**Post-Sample DTW (ft)**	**Drawdown (ft)**
001	RW-3	TAC	02/21/24	11:38	Low Flow	Yes	Clear	None	None	13.25	**4.15**
002	AP-1	TAC	02/21/24	13:41	Low Flow	No	Clear	None	None	9.00	**0.52**
003	AP-2	TAC	02/22/24	11:24	Low Flow	No	Clear	None	None	7.20	0.09
004	AP-3	TAC	02/22/24	12:03	Low Flow	No	Clear	None	None	9.68	0.36
005	AP-4	TAC	02/23/24	11:21	Low Flow	No	Clear	None	None	9.21	0.17
006	AP-5	TAC	02/22/24	13:44	Low Flow	No	Clear	None	None	17.45	**1.5**
007	AP-6	TAC	02/22/24	10:40	Low Flow	No	Clear	None	None	12.45	**4.6**
008	AP-7	TAC	02/26/24	14:20	Low Flow	No	Clear	None	None	13.29	**2.21**
009	AP-8	TAC	02/21/24	12:24	Low Flow	No	Clear	None	None	4.84	0.36
010	AP-9	TAC	02/26/24	13:50	Low Flow	No	Clear	None	None	16.30	**4.25**
011	AP-10	TAC	02/21/24	14:36	Low Flow	No	Clear	Slight	None	3.11	0.29
012	AP-11	TAC	02/26/24	11:08	Low Flow	No	Clear	None	None	14.95	**0.53**
013	AP-12	TAC	02/26/24	12:00	Low Flow	No	Slightly cloudy	Slight	light grey	18.64	**1.29**
014	AP-13	TAC	02/26/24	12:34	Low Flow	No	Clear	Slight	None	18.86	**1.76**
015	AP-14	TAC	02/23/24	10:25	Low Flow	No	Cloudy	None	None	1.90	0.18

Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- Ash Pond- 1Q 2024

WO Sample	Well ID	COMMENTS
001	RW-3	
002	AP-1	
003	AP-2	
004	AP-3	
005	AP-4	
006	AP-5	
007	AP-6	
008	AP-7	
009	AP-8	
010	AP-9	
011	AP-10	
012	AP-11	
013	AP-12	
014	AP-13	
015	AP-14	

Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Stabilized Field Parameters Summary
CWLP- Ash Pond- 1Q 2024

Well ID	Date	Time	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	LIMS ID
RW-3	2/21/2024	11:38	14.0	57.2	7.10	647.6	0.78	124.34	-134.4	9.10	24010117-001A
AP-1	2/21/2024	13:41	15.0	59.0	6.51	1,473.8	1.00	28.16	-3.1	8.48	24010117-002A
AP-2	2/22/2024	11:24	13.1	55.6	6.41	1,190.1	0.56	20.20	115.3	7.11	24010117-003A
AP-3	2/22/2024	12:03	12.8	55.0	6.55	1,048.2	0.65	21.97	78.1	9.32	24010117-004A
AP-4	2/23/2024	11:21	15.5	59.9	6.86	847.4	0.50	38.35	-53.3	9.04	24010117-005A
AP-5	2/22/2024	13:44	14.0	57.2	7.01	590.8	2.26	0.66	63.7	15.95	24010117-006A
AP-6	2/22/2024	10:40	12.8	55.0	6.97	612.2	3.76	12.97	113.0	7.85	24010117-007A
AP-7	2/26/2024	14:20	14.0	57.2	7.15	646.0	1.56	33.97	-88.6	11.08	24010117-008A
AP-8	2/21/2024	12:24	13.5	56.3	6.83	860.7	0.74	6.66	-76.0	4.48	24010117-009A
AP-9	2/26/2024	13:50	15.1	59.2	6.82	813.3	1.06	23.11	-49.8	12.05	24010117-010A
AP-10	2/21/2024	14:36	13.7	56.7	6.65	1,006.6	2.23	34.31	-18.7	2.82	24010117-011A
AP-11	2/26/2024	11:08	12.8	55.0	6.45	1,103.0	1.12	5.21	86.7	14.42	24010117-012A
AP-12	2/26/2024	12:00	14.2	57.6	6.53	1,396.3	0.67	27.25	-25.8	17.35	24010117-013A
AP-13	2/26/2024	12:34	13.8	56.8	6.73	709.8	0.87	10.08	-47.2	17.10	24010117-014A
AP-14	2/23/2024	10:25	11.4	52.5	6.93	1,529.4	1.44	24.44	97.8	1.72	24010117-015A

Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Groundwater Sampling Form- Groundwater Quality Parameters
CWLP- Ash Pond- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
RW-3	2/21/2024	11:32	9.10	13.9	57.0	7.11	648.4	0.89	46.09	-126.70
RW-3	2/21/2024	11:35	9.10	13.9	57.0	7.10	647.6	0.83	90.21	-131.90
RW-3	2/21/2024	11:38	9.10	14.0	57.2	7.10	647.6	0.78	124.34	-134.40

Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Groundwater Sampling Form- Groundwater Quality Parameters
CWLP- Ash Pond- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-1	2/21/2024	13:35	8.48	14.8	58.6	6.51	1,441.3	1.21	29.57	50.10
AP-1	2/21/2024	13:38	8.48	14.7	58.5	6.51	1,459.6	1.04	30.53	22.00
AP-1	2/21/2024	13:41	8.48	15.0	59.0	6.51	1,473.8	1.00	28.16	-3.10

Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Groundwater Sampling Form- Groundwater Quality Parameters
CWLP- Ash Pond- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-2	2/22/2024	11:15	7.11	12.8	55.0	6.42	1,189.9	0.69	66.56	119.50
AP-2	2/22/2024	11:18	7.11	12.9	55.2	6.42	1,185.7	0.64	39.12	118.10
AP-2	2/22/2024	11:21	7.11	12.9	55.2	6.42	1,187.5	0.60	30.02	116.60
AP-2	2/22/2024	11:24	7.11	13.1	55.6	6.41	1,190.1	0.56	20.20	115.30

Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Groundwater Sampling Form- Groundwater Quality Parameters
CWLP- Ash Pond- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-3	2/22/2024	11:54	9.32	12.6	54.7	6.61	1,022.4	1.28	128.69	98.60
AP-3	2/22/2024	11:57	9.32	12.7	54.9	6.57	1,030.4	0.91	56.27	91.00
AP-3	2/22/2024	12:00	9.32	12.8	55.0	6.56	1,040.2	0.75	39.31	84.30
AP-3	2/22/2024	12:03	9.32	12.8	55.0	6.55	1,048.2	0.65	21.97	78.10

Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Groundwater Sampling Form- Groundwater Quality Parameters
CWLP- Ash Pond- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-7	2/26/2024	14:14	11.08	14.5	58.1	7.19	666.9	2.50	15.92	-43.90
AP-7	2/26/2024	14:17	11.08	14.0	57.2	7.15	651.6	1.80	30.93	-71.30
AP-7	2/26/2024	14:20	11.08	14.0	57.2	7.15	646.0	1.56	33.97	-88.60

Site Samping Event: CWLP Ash Pond- 1Q24
LIMS Workorder: 24010117
Technician(s): DC, JC, TC, BG

Groundwater Sampling Form- Groundwater Quality Parameters
CWLP- Ash Pond- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-8	2/21/2024	12:18	4.48	13.5	56.3	6.84	857.8	0.91	6.45	-50.90
AP-8	2/21/2024	12:21	4.48	13.5	56.3	6.83	860.3	0.82	7.31	-66.90
AP-8	2/21/2024	12:24	4.48	13.5	56.3	6.83	860.7	0.74	6.66	-76.00

Summit Environmental Technologies, Inc.
3310 Win St.
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Website: http://www.settek.com

March 15, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24010117

Order No.: 24030039

Dear Shelly Hennessy:

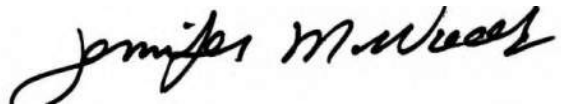
Summit Environmental Technologies, Inc. received 15 sample(s) on 2/29/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,



Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **24030039**
Date: **3/15/2024**

CLIENT: TEKLAB Inc,
Project: 24010117

WorkOrder Narrative:
24030039: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

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Qualifiers and Acronyms

WO#: **24030039**
Date: **3/15/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Website: http://www.settek.com

Workorder Sample Summary

WO#: **24030039**

15-Mar-24

CLIENT: TEKLAB Inc,
Project: 24010117

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24030039-001	24010117-001		2/21/2024 11:38:00 AM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-002	24010117-002		2/21/2024 1:41:00 PM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-003	24010117-003		2/22/2024 11:24:00 AM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-004	24010117-004		2/22/2024 12:03:00 PM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-005	24010117-005		2/23/2024 11:21:00 AM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-006	24010117-006		2/22/2024 1:44:00 PM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-007	24010117-007		2/22/2024 10:40:00 AM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-008	24010117-008		2/26/2024 2:20:00 PM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-009	24010117-009		2/21/2024 12:24:00 PM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-010	24010117-010		2/26/2024 1:50:00 PM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-011	24010117-011		2/21/2024 2:36:00 PM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-012	24010117-012		2/26/2024 11:08:00 AM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-013	24010117-013		2/26/2024 12:00:00 PM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-014	24010117-014		2/26/2024 12:34:00 PM	2/29/2024 12:25:00 PM	Non-Potable Water
24030039-015	24010117-015		2/23/2024 10:25:00 AM	2/29/2024 12:25:00 PM	Non-Potable Water

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DATES REPORT

WO#: **24030039**

15-Mar-24

Client: TEKLAB Inc,

Project: 24010117

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24030039-001A	24010117-001	2/21/2024 11:38:00 AM	Non-Potable Water	Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-002A	24010117-002	2/21/2024 1:41:00 PM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-003A	24010117-003	2/22/2024 11:24:00 AM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-004A	24010117-004	2/22/2024 12:03:00 PM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-005A	24010117-005	2/23/2024 11:21:00 AM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-006A	24010117-006	2/22/2024 1:44:00 PM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-007A	24010117-007	2/22/2024 10:40:00 AM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-008A	24010117-008	2/26/2024 2:20:00 PM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM

Original

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Website: http://www.settek.com

DATES REPORT

WO#: **24030039**

15-Mar-24

Client: TEKLAB Inc,

Project: 24010117

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24030039-008A	24010117-008	2/26/2024 2:20:00 PM	Non-Potable Water	Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-009A	24010117-009	2/21/2024 12:24:00 PM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-010A	24010117-010	2/26/2024 1:50:00 PM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-011A	24010117-011	2/21/2024 2:36:00 PM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-012A	24010117-012	2/26/2024 11:08:00 AM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-013A	24010117-013	2/26/2024 12:00:00 PM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-014A	24010117-014	2/26/2024 12:34:00 PM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM
24030039-015A	24010117-015	2/23/2024 10:25:00 AM		Combined Radium (EPA903+904)			3/15/2024 7:25:39 AM
				Radium-226 (EPA 903.0)		3/5/2024 11:12:34 AM	3/11/2024 10:03:00 AM
				Radium-228 (EPA 904.0)		3/5/2024 11:12:34 AM	3/8/2024 2:17:00 PM

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24030039**

Date Reported: **3/15/2024**

CLIENT: TEKLAB Inc,

Collection Date: 2/21/2024 11:38:00 AM

Project: 24010117

Lab ID: 24030039-001

Matrix: NON-POTABLE WATER

Client Sample ID: 24010117-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)				**CALCULATION**			Analyst: **CXS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.340	1	3/15/2024 7:25:39 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	3/11/2024 10:03:00 AM
Yield	1.00					1	3/11/2024 10:03:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.260	1	3/8/2024 2:17:00 PM
Yield	1.00					1	3/8/2024 2:17:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **24030039**

Date Reported: **3/15/2024**

CLIENT: TEKLAB Inc,

Collection Date: 2/22/2024 11:24:00 AM

Project: 24010117

Lab ID: 24030039-003

Matrix: NON-POTABLE WATER

Client Sample ID: 24010117-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)				**CALCULATION**			Analyst: **CXS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.410	1	3/15/2024 7:25:39 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	3/11/2024 10:03:00 AM
Yield	0.980					1	3/11/2024 10:03:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.350	1	3/8/2024 2:17:00 PM
Yield	1.00					1	3/8/2024 2:17:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **24030039**

Date Reported: **3/15/2024**

CLIENT: TEKLAB Inc,

Collection Date: 2/22/2024 12:03:00 PM

Project: 24010117

Lab ID: 24030039-004

Matrix: NON-POTABLE WATER

Client Sample ID: 24010117-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)				**CALCULATION**			Analyst: **CXS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.320	1	3/15/2024 7:25:39 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.0500	1	3/11/2024 10:03:00 AM
Yield	1.00					1	3/11/2024 10:03:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.270	1	3/8/2024 2:17:00 PM
Yield	1.00					1	3/8/2024 2:17:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **24030039**

Date Reported: **3/15/2024**

CLIENT: TEKLAB Inc,

Collection Date: 2/26/2024 2:20:00 PM

Project: 24010117

Lab ID: 24030039-008

Matrix: NON-POTABLE WATER

Client Sample ID: 24010117-008

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)				**CALCULATION**			Analyst: **CXS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.530	1	3/15/2024 7:25:39 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.0900	1	3/11/2024 10:03:00 AM
Yield	1.00					1	3/11/2024 10:03:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.440	1	3/8/2024 2:17:00 PM
Yield	1.00					1	3/8/2024 2:17:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **24030039**

Date Reported: **3/15/2024**

CLIENT: TEKLAB Inc,

Collection Date: 2/21/2024 12:24:00 PM

Project: 24010117

Lab ID: 24030039-009

Matrix: NON-POTABLE WATER

Client Sample ID: 24010117-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)				**CALCULATION**			Analyst: **CXS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.540	1	3/15/2024 7:25:39 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.120	1	3/11/2024 10:03:00 AM
Yield	1.00					1	3/11/2024 10:03:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.420	1	3/8/2024 2:17:00 PM
Yield	1.00					1	3/8/2024 2:17:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **24030039**

15-Mar-24

Client: TEKLAB Inc,
Project: 24010117 **BatchID:** **73522**

Sample ID: **MB-73522** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2024** RunNo: **181655**
Client ID: **PBW** Batch ID: **73522** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2024** SeqNo: **4923941**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-73522** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2024** RunNo: **181655**
Client ID: **LCSW** Batch ID: **73522** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2024** SeqNo: **4923942**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.32	1.00	5.000	0	66.4	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-73522** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2024** RunNo: **181655**
Client ID: **LCSS02** Batch ID: **73522** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2024** SeqNo: **4923943**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.49	1.00	5.000	0	69.8	50	130	3.320	4.99	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24030039**

15-Mar-24

Client: TEKLAB Inc,
Project: 24010117 **BatchID:** **73522**

Sample ID: **RLC-73522** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2024** RunNo: **181655**
Client ID: **BatchQC** Batch ID: **73522** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2024** SeqNo: **4923945**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.01	1.00	1.000	0	101	50	150				
Yield	1.00			0	0						

Sample ID: **RLCD-73522** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2024** RunNo: **181655**
Client ID: **BatchQC** Batch ID: **73522** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2024** SeqNo: **4923946**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	70.0	50	150				
Yield	1.00			0	0						

Sample ID: **24030092-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2024** RunNo: **181655**
Client ID: **BatchQC** Batch ID: **73522** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2024** SeqNo: **4923950**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24030039**

15-Mar-24

Client: TEKLAB Inc,
Project: 24010117 **BatchID:** **73522**

Sample ID: **24030092-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2024** RunNo: **181655**
Client ID: **BatchQC** Batch ID: **73522** TestNo: **E904.0** **E903-904** Analysis Date: **3/8/2024** SeqNo: **4923952**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.41	1.00		0	0			2.380	1.25	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24030039**

15-Mar-24

Client: TEKLAB Inc,
Project: 24010117 **BatchID:** **73522**

Sample ID: **MB-73522**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2024**	RunNo: **181663**
Client ID: **PBW**	Batch ID: **73522**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/11/2024**	SeqNo: **4924195**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-73522**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2024**	RunNo: **181663**
Client ID: **LCSW**	Batch ID: **73522**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/11/2024**	SeqNo: **4924196**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.34	1.00	5.000	0	107	70	130				

Sample ID: **LCSD-73522**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2024**	RunNo: **181663**
Client ID: **LCSS02**	Batch ID: **73522**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/11/2024**	SeqNo: **4924197**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.64	1.00	5.000	0	92.8	70	130	5.340	14.0	20	

Sample ID: **RLC-73522**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2024**	RunNo: **181663**
Client ID: **BatchQC**	Batch ID: **73522**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/11/2024**	SeqNo: **4924199**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **24030039**

15-Mar-24

Client: TEKLAB Inc,
Project: 24010117 **BatchID:** **73522**

Sample ID: **RLC-73522** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/5/2024** RunNo: **181663**
Client ID: **BatchQC** Batch ID: **73522** TestNo: **E903.0** **E903-904** Analysis Date: **3/11/2024** SeqNo: **4924199**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	91.0	50	150				

Sample ID: **RLCD-73522** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/5/2024** RunNo: **181663**
Client ID: **BatchQC** Batch ID: **73522** TestNo: **E903.0** **E903-904** Analysis Date: **3/11/2024** SeqNo: **4924200**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	78.0	50	150				

Sample ID: **24030092-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/5/2024** RunNo: **181663**
Client ID: **BatchQC** Batch ID: **73522** TestNo: **E903.0** **E903-904** Analysis Date: **3/11/2024** SeqNo: **4924202**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Pg ___ of ___ 2403 0039

SN 2402t

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

11.0-0.2=10.8°C, 11.2-0.2=11.0°C
13.5-0.2=13.3°C

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Teklab Sampler | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium (226, 228, and combined) on your standard turnaround time.
Receipt summary requested.

Project# 24010117

Contact: Shelly Hennessy | Email: shennessy@teklabinc.com
Requested Due Date: 20 business days or less | Billing/PO: 35852 | Phone: 618 344 1004 ext 36

State of Origin: IL

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	Combined Radium		cpm				pH			
	24010117-001	2/21/24 1138	HNO3	Groundwater	✔	✔	✔	☐	~~15~~	18	☐	☐	☐	☐	☐	☐
	24010117-002	2/21/24 1341	HNO3	Groundwater	✔	✔	✔	☐	~~18~~	15	☐	☐	☐	☐	☐	☐
	24010117-003	2/22/24 1124	HNO3	Groundwater	✔	✔	✔	☐	18		☐	☐	☐	☐	☐	☐
	24010117-004	2/22/24 1203	HNO3	Groundwater	✔	✔	✔	☐	18	34	☐	☐	☐	☐	☐	☐
	24010117-009	2/23/24 1121	HNO3	Groundwater	✔	✔	✔	☐	~~3~~	18	☐	☐	☐	☐	☐	☐
	24010117-006	2/22/24 1344	HNO3	Groundwater	✔	✔	✔	☐	~~5~~	3	☐	☐	☐	☐	☐	☐
	24010117-007	2/22/24 1040	HNO3	Groundwater	✔	✔	✔	☐	15		☐	☐	☐	☐	☐	☐
	24010117-008	2/26/24 1420	HNO3	Groundwater	✔	✔	✔	☐	15		☐	☐	☐	☐	☐	☐
	24010117-009	2/21/24 1224	HNO3	Groundwater	✔	✔	✔	☐	~~38~~	19	☐	☐	☐	☐	☐	☐
	24010117-010	2/26/24 1350	HNO3	Groundwater	✔	✔	✔	☐	~~23~~	38	☐	☐	☐	☐	☐	☐
	24010117-011	2/21/24 1436	HNO3	Groundwater	✔	✔	✔	☐	23		☐	☐	☐	☐	☐	☐

2/27 2145

*Relinquished By	Date/Time	Received By	Date/Time
[signature]	2/27/24 1700	[signature]	2/29/24, 1225

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Teklab Sampler | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium (226, 228, and combined) on your standard turnaround time.
Receipt summary requested.

Project# 24010117

Contact: Shelly Hennessy | Email: shennessy@teklabinc.com
Requested Due Date: 20 business days or less | Billing/PO: 35852
Phone: 618 344 1004 ext 36

State of Origin: IL

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	Combined Radium		cpm			pH				
	24010117-012	2/26/24 1108	HNO3	Groundwater	✔	✔	✔	☐	3	☐	☐	1	☐	☐	☐	☐
	24010117-013	2/26/24 1200	HNO3	Groundwater	✔	✔	✔	☐	23	☐	☐	1	☐	☐	☐	☐
	24010117-014	2/26/24 1234	HNO3	Groundwater	✔	✔	✔	☐	31	☐	☐	1	☐	☐	☐	☐
	24010117-015	2/23/24 1025	HNO3	Groundwater	✔	✔	✔	☐	27	☐	☐	1	☐	☐	☐	☐
			HNO3	Groundwater	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			HNO3	Groundwater	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			HNO3	Groundwater	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			HNO3	Groundwater	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			HNO3	Groundwater	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			HNO3	Groundwater	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			HNO3	Groundwater	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

*Relinquished By	Date/Time	Received By	Date/Time
[signature]	2/27/24 1200		

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

February 21, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 24010118

Dear Eric Staley:

TEKLAB, INC received 11 samples on 2/1/2024 4:45:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Work Order: 24010118
Client Project: FGDS Landfill
Report Date: 21-Feb-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	13
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24010118

Client Project: FGDS Landfill **Report Date:** 21-Feb-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 24010118
Client Project: FGDS Landfill
Report Date: 21-Feb-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 24010118
Report Date: 21-Feb-24

Cooler Receipt Temp: 8.5 °C

An employee of Teklab, Inc. collected the sample(s).

R101, G112, G113, AW-2 and RW-3 will be recollected at a later date.

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 24010118
Client Project: FGDS Landfill
Report Date: 21-Feb-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 24010118

Client Project: FGDS Landfill **Report Date:** 21-Feb-24

Lab ID: 24010118-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 02/01/2024 13:16

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.05**	ft	1	02/01/2024 13:16	R342908
Depth to water	*	-5.00		**20.75**	ft	1	02/01/2024 13:16	R342908
Depth to water from measuring point	*	0		**23.36**	ft	1	02/01/2024 13:16	R342908
Elevation of groundwater surface	*	0		**533.84**	ft	1	02/01/2024 13:16	R342908
Measuring Point Elevation	*	0		**557.20**	ft	1	02/01/2024 13:16	R342908
Measuring Point Height Above Land Surface	*	0		**2.61**	ft	1	02/01/2024 13:16	R342908
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.4**	NTU	1	02/01/2024 13:16	R342908
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.1**	°F	1	02/01/2024 13:16	R342908
SW-846 9040B								
pH, Field	*	1.00		**6.85**		1	02/01/2024 13:16	R342908
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**658**	µmhos/cm @25C	1	02/01/2024 13:16	R342908
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**480**	mg/L	2.5	02/02/2024 14:05	R342621
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	02/05/2024 15:22	R342640
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.13**	mg/L	1	02/02/2024 13:25	R342565
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**8**	mg/L	1	02/05/2024 15:23	R342647
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.158**	mg/L	1	02/05/2024 8:43	218215
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/05/2024 8:43	218215
Boron	NELAP	0.0200		**0.105**	mg/L	1	02/05/2024 8:43	218215
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/05/2024 8:43	218215
Calcium	NELAP	0.100		**112**	mg/L	1	02/06/2024 16:01	218215
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/05/2024 8:43	218215
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/05/2024 8:43	218215
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/05/2024 8:43	218215
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/07/2024 15:33	218215
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/05/2024 8:43	218215
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/05/2024 19:59	218215
Arsenic	NELAP	0.0010		**0.0057**	mg/L	5	02/05/2024 19:59	218215
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/05/2024 19:59	218215
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/05/2024 19:59	218215
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/05/2024 15:18	218217
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341
Radium-228	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341

Client: City Water, Light & Power **Work Order:** 24010118

Client Project: FGDS Landfill **Report Date:** 21-Feb-24

Lab ID: 24010118-003 **Client Sample ID:** R111

Matrix: GROUNDWATER **Collection Date:** 02/02/2024 11:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.25**	ft	1	02/02/2024 11:02	R342908
Depth to water	*	-5.00		**24.34**	ft	1	02/02/2024 11:02	R342908
Depth to water from measuring point	*	0		**24.34**	ft	1	02/02/2024 11:02	R342908
Elevation of groundwater surface	*	0		**529.66**	ft	1	02/02/2024 11:02	R342908
Measuring Point Elevation	*	0		**554.00**	ft	1	02/02/2024 11:02	R342908
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	02/02/2024 11:02	R342908
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.9**	NTU	1	02/02/2024 11:02	R342908
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.4**	°F	1	02/02/2024 11:02	R342908
SW-846 9040B								
pH, Field	*	1.00		**6.14**		1	02/02/2024 11:02	R342908
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**90.9**	µmhos/cm @25C	1	02/02/2024 11:02	R342908
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**78**	mg/L	1	02/06/2024 11:33	R342760
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	02/05/2024 15:30	R342640
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**< 0.10**	mg/L	1	02/07/2024 11:16	R342758
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**6**	mg/L	1	02/05/2024 15:31	R342647
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0139**	mg/L	1	02/06/2024 12:01	218254
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/06/2024 12:01	218254
Boron	NELAP	0.0200		**< 0.0200**	mg/L	1	02/06/2024 12:01	218254
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/06/2024 12:01	218254
Calcium	NELAP	0.100		**11.0**	mg/L	1	02/06/2024 12:01	218254
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/06/2024 12:01	218254
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/06/2024 12:01	218254
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/06/2024 12:01	218254
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/06/2024 12:01	218254
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/06/2024 12:01	218254
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2024 2:30	218254
Arsenic	NELAP	0.0010		**0.0015**	mg/L	5	02/07/2024 2:30	218254
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2024 2:30	218254
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/09/2024 16:43	218254
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/06/2024 11:07	218284
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341
Radium-228	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341

Client: City Water, Light & Power **Work Order:** 24010118

Client Project: FGDS Landfill **Report Date:** 21-Feb-24

Lab ID: 24010118-006 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 02/02/2024 10:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	02/02/2024 10:07	R342908
Depth to water	*	-5.00		**14.63**	ft	1	02/02/2024 10:07	R342908
Depth to water from measuring point	*	0		**14.63**	ft	1	02/02/2024 10:07	R342908
Elevation of groundwater surface	*	0		**538.47**	ft	1	02/02/2024 10:07	R342908
Measuring Point Elevation	*	0		**553.10**	ft	1	02/02/2024 10:07	R342908
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	02/02/2024 10:07	R342908
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**10**	NTU	1	02/02/2024 10:07	R342908
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.7**	°F	1	02/02/2024 10:07	R342908
SW-846 9040B								
pH, Field	*	1.00		**6.47**		1	02/02/2024 10:07	R342908
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1460**	µmhos/cm @25C	1	02/02/2024 10:07	R342908
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**1320**	mg/L	5	02/05/2024 9:56	R342697
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**503**	mg/L	20	02/05/2024 15:43	R342640
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.17**	mg/L	1	02/07/2024 14:39	R342758
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**39**	mg/L	1	02/05/2024 15:39	R342647
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.628**	mg/L	1	02/06/2024 12:16	218254
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/06/2024 12:16	218254
Boron	NELAP	0.0200		**7.12**	mg/L	1	02/06/2024 12:16	218254
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/06/2024 12:16	218254
Calcium	NELAP	0.100		**265**	mg/L	1	02/06/2024 12:16	218254
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/06/2024 12:16	218254
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/06/2024 12:16	218254
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/06/2024 12:16	218254
Lithium	NELAP	0.0050		**0.0080**	mg/L	1	02/06/2024 12:16	218254
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/06/2024 12:16	218254
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2024 2:36	218254
Arsenic	NELAP	0.0010		**0.0116**	mg/L	5	02/07/2024 2:36	218254
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2024 2:36	218254
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/09/2024 16:48	218254
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/06/2024 11:09	218284
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341
Radium-228	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341

Client: City Water, Light & Power **Work Order:** 24010118

Client Project: FGDS Landfill **Report Date:** 21-Feb-24

Lab ID: 24010118-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 02/02/2024 10:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	02/02/2024 10:29	R342908
Depth to water	*	-5.00		**24.67**	ft	1	02/02/2024 10:29	R342908
Depth to water from measuring point	*	0		**26.54**	ft	1	02/02/2024 10:29	R342908
Elevation of groundwater surface	*	0		**529.06**	ft	1	02/02/2024 10:29	R342908
Measuring Point Elevation	*	0		**555.60**	ft	1	02/02/2024 10:29	R342908
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	02/02/2024 10:29	R342908
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.3**	NTU	1	02/02/2024 10:29	R342908
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.5**	°F	1	02/02/2024 10:29	R342908
SW-846 9040B								
pH, Field	*	1.00		**6.62**		1	02/02/2024 10:29	R342908
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1200**	µmhos/cm @25C	1	02/02/2024 10:29	R342908
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**1000**	mg/L	5	02/05/2024 9:56	R342697
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**290**	mg/L	20	02/05/2024 15:52	R342640
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.17**	mg/L	1	02/07/2024 14:41	R342758
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**30**	mg/L	1	02/05/2024 15:47	R342647
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.555**	mg/L	1	02/06/2024 12:18	218254
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/06/2024 12:18	218254
Boron	NELAP	0.0200		**3.30**	mg/L	1	02/06/2024 12:18	218254
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/06/2024 12:18	218254
Calcium	NELAP	0.100		**189**	mg/L	1	02/06/2024 12:18	218254
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/06/2024 12:18	218254
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/06/2024 12:18	218254
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/06/2024 12:18	218254
Lithium	NELAP	0.0050		**0.0073**	mg/L	1	02/06/2024 12:18	218254
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/06/2024 12:18	218254
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2024 2:42	218254
Arsenic	NELAP	0.0010		**0.0173**	mg/L	5	02/07/2024 2:42	218254
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2024 2:42	218254
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/09/2024 16:53	218254
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/06/2024 11:12	218284
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341
Radium-228	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341

Client: City Water, Light & Power **Work Order:** 24010118

Client Project: FGDS Landfill **Report Date:** 21-Feb-24

Lab ID: 24010118-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 02/02/2024 10:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	02/02/2024 10:54	R342908
Depth to water	*	-5.00		**24.97**	ft	1	02/02/2024 10:54	R342908
Depth to water from measuring point	*	0		**26.71**	ft	1	02/02/2024 10:54	R342908
Elevation of groundwater surface	*	0		**527.69**	ft	1	02/02/2024 10:54	R342908
Measuring Point Elevation	*	0		**554.40**	ft	1	02/02/2024 10:54	R342908
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	02/02/2024 10:54	R342908
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.4**	NTU	1	02/02/2024 10:54	R342908
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.2**	°F	1	02/02/2024 10:54	R342908
SW-846 9040B								
pH, Field	*	1.00		**6.56**		1	02/02/2024 10:54	R342908
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1390**	µmhos/cm @25C	1	02/02/2024 10:54	R342908
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**1270**	mg/L	5	02/05/2024 9:56	R342697
SW-846 9036 (TOTAL)								
Sulfate	NELAP	500		**532**	mg/L	50	02/07/2024 9:49	R342767
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.13**	mg/L	1	02/07/2024 14:43	R342758
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**40**	mg/L	1	02/05/2024 16:11	R342647
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.474**	mg/L	1	02/06/2024 12:19	218254
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/06/2024 12:19	218254
Boron	NELAP	0.0200		**11.3**	mg/L	1	02/06/2024 12:19	218254
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/06/2024 12:19	218254
Calcium	NELAP	0.100		**251**	mg/L	1	02/06/2024 12:19	218254
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/06/2024 12:19	218254
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/06/2024 12:19	218254
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/06/2024 12:19	218254
Lithium	NELAP	0.0050		**0.0070**	mg/L	1	02/06/2024 12:19	218254
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/06/2024 12:19	218254
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2024 2:47	218254
Arsenic	NELAP	0.0010		**0.0028**	mg/L	5	02/07/2024 2:47	218254
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/07/2024 2:47	218254
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/09/2024 16:58	218254
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/06/2024 11:14	218284
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341
Radium-228	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341

Client: City Water, Light & Power **Work Order:** 24010118

Client Project: FGDS Landfill **Report Date:** 21-Feb-24

Lab ID: 24010118-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 02/01/2024 14:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	02/01/2024 14:27	R342908
Depth to water	*	-5.00		**9.12**	ft	1	02/01/2024 14:27	R342908
Depth to water from measuring point	*	0		**11.87**	ft	1	02/01/2024 14:27	R342908
Elevation of groundwater surface	*	0		**543.73**	ft	1	02/01/2024 14:27	R342908
Measuring Point Elevation	*	0		**555.60**	ft	1	02/01/2024 14:27	R342908
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	02/01/2024 14:27	R342908
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**160**	NTU	1	02/01/2024 14:27	R342908
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.8**	°F	1	02/01/2024 14:27	R342908
SW-846 9040B								
pH, Field	*	1.00		**6.55**		1	02/01/2024 14:27	R342908
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1030**	µmhos/cm @25C	1	02/01/2024 14:27	R342908
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**1120**	mg/L	5	02/02/2024 14:05	R342621
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**369**	mg/L	20	02/05/2024 16:23	R342640
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**< 0.10**	mg/L	1	02/02/2024 13:27	R342565
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**40**	mg/L	1	02/05/2024 16:19	R342647
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**2.02**	mg/L	1	02/05/2024 8:43	218215
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/05/2024 8:43	218215
Boron	NELAP	0.0200		**8.24**	mg/L	1	02/05/2024 8:43	218215
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/05/2024 8:43	218215
Calcium	NELAP	0.100		**203**	mg/L	1	02/06/2024 16:02	218215
Chromium	NELAP	0.0050		**0.0087**	mg/L	1	02/05/2024 8:43	218215
Cobalt	NELAP	0.0050		**0.0055**	mg/L	1	02/05/2024 8:43	218215
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/05/2024 8:43	218215
Lithium	NELAP	0.0050		**0.0184**	mg/L	1	02/07/2024 15:34	218215
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/05/2024 8:43	218215
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/05/2024 20:04	218215
Arsenic	NELAP	0.0010		**0.160**	mg/L	5	02/05/2024 20:04	218215
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/05/2024 20:04	218215
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/05/2024 20:04	218215
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/05/2024 15:25	218217
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341
Radium-228	*	0		**See Attached**	pci/L	1	02/19/2024 14:24	R343341

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24010118
Client Project: FGDS Landfill
Report Date: 21-Feb-24

Carrier: Tracy Carroll
Received By: AMD

Completed by: Amber Dilallo
On: 02-Feb-24

Reviewed by: Ellie Hopkins
On: 05-Feb-24

Pages to follow: Chain of custody 2 Extra pages included 29

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 8.5
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #90719. - amberdilallo - 2/2/2024 8:41:47 AM

pH strip #90719. - nickreed - 2/2/2024 3:02:17 PM

Samples collected on 2/2/24 were received at 7.3 degrees C on Ice (LTG#5) -NR 2/2/24

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder# ~~24010110~~ 24010118

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

TE 2/2/24

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 8.5 °C #5

Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY

LAB NOTES: 907A 2/2/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No

Are these samples known to be hazardous? [ ] Yes [✓] No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:

*elevations, pH, conductivity, temperature

**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo

Quarterly monitoring 4Q2023-3Q2025

RW-3 report data from Ash Pond sampling event. 24010117-001

PROJECT NAME/NUMBER

FGDS Landfill

SAMPLE COLLECTOR'S NAME

TCarroll

RESULTS REQUESTED

[✓] Standard [ ] 1-2 Day (100% Surcharge)

[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24010118-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G110	2/1/24 1316	Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	R111		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	G113		Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	G120		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	G121		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	G122		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AW-1	2/1/24 1427	Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	RW-3		Groundwater	0	0								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
TCarroll	2/1/24 1645	[illegible]	2/1/24 1645

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder# ~~240110~~ 24010118 TE 1/24 1/2/24

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 7.3 °C LTGS
Preserved in: ☐ LAB ☒ FIELD FOR LAB USE ONLY
LAB NOTES: pH 9.07.19 DS 1/2

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments: Courier
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 24010117-001

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24010118-001	R101		Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	G110		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	R111	2/2/24 1102	Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	G112		Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	G113		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	G120	2/2/24 1007	Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	G121	2/2/24 1029	Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	G122	2/2/24 1054	Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AW-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AW-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	RW-3		Groundwater	0	0								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	2-2-24 1300		2/2 1300

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions DS 1/2

Site Samping Event: CWLP-LF 1Q24
LIMS Workorder: 24010118
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- 1Q 2024

			Weather				Well Condition				
WO Sample	**Well ID**	**Program/ Sample Type**	**Temp (°F)**	**Precipitation**	**Wind Direction**	**Sky**	**Well Pad**	**Casing**	**Protective Cover**	**Reference Mark/ ID**	**Well Locked**
002	G110	Groundwater Sample	56.0	None	SW	Cloudy	Good	Good	Good	No	No
003	R111	Groundwater Sample	42.0	None	E	Partly cloudy	Good	Good	Good	Yes	No
006	G120	Groundwater Sample	39.0	None	W	Cloudy	Good	Good	Good	Yes	No
007	G121	Groundwater Sample	41.0	None	W	Cloudy	Good	Good	Good	Yes	No
008	G122	Groundwater Sample	42.0	None	W	Partly cloudy	Good	Good	Good	Yes	No
009	AW-1	Groundwater Sample	56.0	None	SW	Cloudy	Good	Good	Good	Yes	No
012	DUPLICATE	QA/QC Sample	42.0	None	E	Partly cloudy	Good	Good	Good	Yes	No

Site Samping Event: CWLP-LF 1Q24
LIMS Workorder: 24010118
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- 1Q 2024

		GW Level Measurement				Purge Activities							
WO Sample	**Well ID**	**Sampler Initials**	**Date/Time**	**DTW (ft)**	**DTB (ft)**	**Sampler Initials**	**Purge Date**	**Purge Start Time**	**Purge End Time**	**Purging Device**	**Well Diameter (in)**	**Actual Volume Purged (L)**	**Purge Rate (mL/min)**
002	G110	TAC	2/1/24 12:45	23.36	57.15	TAC	2/1/2024	12:50	13:16	Peristaltic Pump	2"	5.0	192.3
003	R111	DC	2/2/24 10:36	24.34	55.75	TAC	2/2/2024	10:40	11:02	Peristaltic Pump	2"	4.0	181.8
006	G120	JC	2/2/24 9:50	14.63	50.37	JC	2/2/2024	09:55	10:07	Submersible Pump	2"	4.0	333.3
007	G121	JC	2/2/24 10:17	26.54	58.56	JC	2/2/2024	10:19	10:29	Submersible Pump	2"	4.0	**400.0**
008	G122	JC	2/2/24 10:44	26.71	49.29	JC	2/2/2024	10:44	10:54	Submersible Pump	2"	3.0	300.0
009	AW-1	DC	2/1/24 13:47	11.87	54.81	TAC	2/1/2024	14:00	14:27	Submersible Pump	2"	6.0	222.2
012	DUPLICATE	DC	2/2/24 11:22	24.34		TAC	2/2/2024	10:40	11:02	Peristaltic Pump	2"	4.0	181.8

Site Samping Event: CWLP-LF 1Q24
LIMS Workorder: 24010118
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- 1Q 2024

		Sampling Activities and Observations									
WO Sample	**Well ID**	**Sampler Initials**	**Date**	**Time**	**Sampling Method**	**Field Filtered**	**Appearance**	**Odor**	**Color**	**Post-Sample DTW (ft)**	**Drawdown (ft)**
002	G110	DC	02/01/24	13:16	Low Flow	Yes	Clear	Slight	None	23.38	0.02
003	R111	DC	02/02/24	11:02	Low Flow	Yes	Clear	None	None	24.45	0.11
006	G120	JC	02/02/24	10:07	Low Flow	Yes	Clear	None	none	19.04	**4.41**
007	G121	JC	02/02/24	10:29	Low Flow	Yes	Clear	None	none	31.10	**4.56**
008	G122	JC	02/02/24	10:54	Low Flow	Yes	Clear	None	none	28.57	**1.86**
009	AW-1	DC	02/01/24	14:27	Low Flow	Yes	Slightly cloudy	None	Lt Brown	15.90	**4.03**
012	DUPLICATE	DC	02/02/24	11:02	Low Flow	Yes	Clear	None	None	24.45	0.11

Site Samping Event: CWLP-LF 1Q24
LIMS Workorder: 24010118
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- 1Q 2024

WO Sample	Well ID	COMMENTS
002	G110	
003	R111	
006	G120	
007	G121	
008	G122	
009	AW-1	
012	DUPLICATE	

Site Samping Event: CWLP-LF 1Q24
LIMS Workorder: 24010118
Technician(s): DC, JC, TC, BG

Stabilized Field Parameters Summary
CWLP- 1Q 2024

Well ID	Date	Time	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	LIMS ID
G110	2/01/2024	13:16	14.5	58.1	6.85	657.8	1.89	6.40	-61.3	23.36	24010116-002A
R111	2/02/2024	11:02	13.0	55.4	6.14	90.9	2.47	4.87	135.4	24.34	24010116-003A
G120	2/02/2024	10:07	13.7	56.7	6.47	1,462.1	1.67	10.45	144.9	14.63	24010116-006A
G121	2/02/2024	10:29	12.5	54.5	6.62	1,195.9	1.91	8.32	143.8	26.54	24010116-007A
G122	2/02/2024	10:54	12.9	55.2	6.56	1,390.5	1.72	9.40	143.3	26.71	24010116-008A
AW-1	2/01/2024	14:27	13.8	56.8	6.55	1,025.6	0.56	155.98	-79.6	11.87	24010116-009A
DUPLICATE	2/02/2024	11:02	13.0	55.4	6.14	90.9	2.47	4.87	135.4	24.34	24010116-012A

Site Samping Event: CWLP-LF 1Q24
LIMS Workorder: 24010118
Technician(s): DC, JC, TC, BG

Groundwater Sampling Forms- Groundwter Quality Parameters
CWLP- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G110	2/01/2024	13:07	23.36	14.3	57.7	6.84	668.3	1.880	4.6	-35.6
G110	2/01/2024	13:10	23.36	14.3	57.7	6.84	665.1	1.750	5.1	-47.8
G110	2/01/2024	13:13	23.36	14.5	58.1	6.85	660.4	1.710	5.4	-56.0
G110	2/01/2024	13:16	23.36	14.5	58.1	6.85	657.8	1.890	6.4	-61.3

Site Samping Event: CWLP-LF 1Q24 **Groundwater Sampling Forms- Groundwter Quality Parameters**
LIMS Workorder: 24010118 **CWLP- 1Q 2024**
Technician(s): DC, JC, TC, BG

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
R111	2/02/2024	10:53	24.34	12.8	55.0	6.17	91.6	2.730	7.5	136.1
R111	2/02/2024	10:56	24.34	13.0	55.4	6.15	91.6	2.620	5.8	136.1
R111	2/02/2024	10:59	24.34	12.9	55.2	6.14	91.0	2.520	5.1	135.7
R111	2/02/2024	11:02	24.34	13.0	55.4	6.14	90.9	2.470	4.9	135.4

Site Samping Event: CWLP-LF 1Q24 **Groundwater Sampling Forms- Groundwter Quality Parameters**
LIMS Workorder: 24010118 **CWLP- 1Q 2024**
Technician(s): DC, JC, TC, BG

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G120	2/02/2024	9:58	14.63	13.8	56.8	6.46	1,385.6	4.040	15.0	136.4
G120	2/02/2024	10:01	14.63	13.9	57.0	6.57	1,392.8	2.640	12.5	138.0
G120	2/02/2024	10:04	14.63	13.7	56.7	6.50	1,431.0	2.020	11.1	143.3
G120	2/02/2024	10:07	14.63	13.7	56.7	6.47	1,462.1	1.670	10.5	144.9

Site Samping Event: CWLP-LF 1Q24
LIMS Workorder: 24010118
Technician(s): DC, JC, TC, BG

Groundwater Sampling Forms- Groundwter Quality Parameters
CWLP- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G121	2/02/2024	10:23	26.54	12.0	53.6	6.67	1,176.4	3.660	24.3	143.8
G121	2/02/2024	10:26	26.54	12.2	54.0	6.63	1,195.2	2.460	12.5	144.5
G121	2/02/2024	10:29	26.54	12.5	54.5	6.62	1,195.9	1.910	8.3	143.8

Site Samping Event: CWLP-LF 1Q24
LIMS Workorder: 24010118
Technician(s): DC, JC, TC, BG

Groundwater Sampling Forms- Groundwter Quality Parameters
CWLP- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G122	2/02/2024	10:48	26.71	12.8	55.0	6.59	1,368.6	2.790	17.4	143.6
G122	2/02/2024	10:51	26.71	12.9	55.2	6.57	1,372.2	2.100	14.3	143.9
G122	2/02/2024	10:54	26.71	12.9	55.2	6.56	1,390.5	1.720	9.4	143.3

Site Samping Event: CWLP-LF 1Q24 **Groundwater Sampling Forms- Groundwter Quality Parameters**
LIMS Workorder: 24010118 **CWLP- 1Q 2024**
Technician(s): DC, JC, TC, BG

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AW-1	2/01/2024	14:18	11.87	13.7	56.7	6.55	1,059.4	1.190	151.8	-66.2
AW-1	2/01/2024	14:21	11.87	13.7	56.7	6.55	1,052.9	1.010	133.9	-71.6
AW-1	2/01/2024	14:24	11.87	13.6	56.5	6.55	1,040.5	0.930	161.2	-75.8
AW-1	2/01/2024	14:27	11.87	13.8	56.8	6.55	1,025.6	0.560	156.0	-79.6

Site Samping Event: CWLP-LF 1Q24 **Groundwater Sampling Forms- Groundwter Quality Parameters**
LIMS Workorder: 24010118 **CWLP- 1Q 2024**
Technician(s): DC, JC, TC, BG

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
DUPLICATE	2/02/2024	10:53	24.34	12.8	55.0	6.17	91.6	2.730	7.5	136.1
DUPLICATE	2/02/2024	10:56	24.34	13.0	55.4	6.15	91.6	2.620	5.8	136.1
DUPLICATE	2/02/2024	10:59	24.34	12.9	55.2	6.14	91.0	2.520	5.1	135.7
DUPLICATE	2/02/2024	11:02	24.34	13.0	55.4	6.14	90.9	2.470	4.9	135.4

Summit Environmental Technologies, Inc.
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Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24030039 RcptNo: 1

Logged by:	Tegan A. Richards	2/29/2024 12:25:00 PM	Tegan Richards
Completed By:	Salwa A. Najjar	3/1/2024 1:22:39 PM	Salwa Najjar
Reviewed By:	Jennifer Woolf	3/1/2024 2:15:22 PM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	10.8	Good	Not Present			

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Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24030039 RcptNo: 1

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	11.0	Good	Not Present			
3	13.3	Good	Not Present			

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February 21, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24010118

Dear Shelly Hennessy:

Order No.: 24020447

Summit Environmental Technologies, Inc. received 6 sample(s) on 2/7/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
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Website: http://www.settek.com

Case Narrative

WO#: **24020447**
Date: **2/21/2024**

CLIENT: TEKLAB Inc,
Project: 24010118

WorkOrder Narrative:
24020447: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
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Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24020447**
Date: **2/21/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24020447**
21-Feb-24

CLIENT: TEKLAB Inc,
Project: 24010118

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24020447-001	24010118-002		2/1/2024 1:16:00 PM	2/7/2024 11:30:00 AM	Non-Potable Water
24020447-002	24010118-003		2/2/2024 11:02:00 AM	2/7/2024 11:30:00 AM	Non-Potable Water
24020447-003	24010118-006		2/2/2024 10:07:00 AM	2/7/2024 11:30:00 AM	Non-Potable Water
24020447-004	24010118-007		2/2/2024 10:29:00 AM	2/7/2024 11:30:00 AM	Non-Potable Water
24020447-005	24010118-008		2/2/2024 10:54:00 AM	2/7/2024 11:30:00 AM	Non-Potable Water
24020447-006	24010118-009		2/1/2024 2:27:00 PM	2/7/2024 11:30:00 AM	Non-Potable Water

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DATES REPORT

WO#: **24020447**

21-Feb-24

Client: TEKLAB Inc,

Project: 24010118

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24020447-001A	24010118-002	2/1/2024 1:16:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		2/14/2024 12:42:04 PM	2/20/2024 4:53:33 PM
				Radium-228 (EPA 904.0)		2/14/2024 12:42:04 PM	2/19/2024 2:24:00 PM
24020447-002A	24010118-003	2/2/2024 11:02:00 AM		Radium-226 (EPA 903.0)		2/14/2024 12:42:04 PM	2/20/2024 4:53:33 PM
				Radium-228 (EPA 904.0)		2/14/2024 12:42:04 PM	2/19/2024 2:24:00 PM
24020447-003A	24010118-006	2/2/2024 10:07:00 AM		Radium-226 (EPA 903.0)		2/14/2024 12:42:04 PM	2/20/2024 4:53:33 PM
				Radium-228 (EPA 904.0)		2/14/2024 12:42:04 PM	2/19/2024 2:24:00 PM
24020447-004A	24010118-007	2/2/2024 10:29:00 AM		Radium-226 (EPA 903.0)		2/14/2024 12:42:04 PM	2/20/2024 4:53:33 PM
				Radium-228 (EPA 904.0)		2/14/2024 12:42:04 PM	2/19/2024 2:24:00 PM
24020447-005A	24010118-008	2/2/2024 10:54:00 AM		Radium-226 (EPA 903.0)		2/14/2024 12:42:04 PM	2/20/2024 4:53:33 PM
				Radium-228 (EPA 904.0)		2/14/2024 12:42:04 PM	2/19/2024 2:24:00 PM
24020447-006A	24010118-009	2/1/2024 2:27:00 PM		Radium-226 (EPA 903.0)		2/14/2024 12:42:04 PM	2/20/2024 4:53:33 PM
				Radium-228 (EPA 904.0)		2/14/2024 12:42:04 PM	2/19/2024 2:24:00 PM

Original

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Analytical Report

(consolidated)

WO#: **24020447**

Date Reported: **2/21/2024**

CLIENT: TEKLAB Inc,

Collection Date: 2/1/2024 2:27:00 PM

Project: 24010118

Lab ID: 24020447-006

Matrix: NON-POTABLE WATER

Client Sample ID: 24010118-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	1.96	1.00		pCi/L	± 0.260	1	2/20/2024 4:53:33 PM
Yield	1.00					1	2/20/2024 4:53:33 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	1.43	1.00		pCi/L	± 0.410	1	2/19/2024 2:24:00 PM
Yield	1.00					1	2/19/2024 2:24:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24020447**

21-Feb-24

Client: TEKLAB Inc,
Project: 24010118 **BatchID:** **72958**

Sample ID: **MB-72958** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/14/2024** RunNo: **180457**
Client ID: **PBW** Batch ID: **72958** TestNo: **E904.0** **E903-904** Analysis Date: **2/19/2024** SeqNo: **4892947**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-72958** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/14/2024** RunNo: **180457**
Client ID: **LCSW** Batch ID: **72958** TestNo: **E904.0** **E903-904** Analysis Date: **2/19/2024** SeqNo: **4892948**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.28	1.00	7.170	0	59.7	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-72958** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/14/2024** RunNo: **180457**
Client ID: **LCSS02** Batch ID: **72958** TestNo: **E904.0** **E903-904** Analysis Date: **2/19/2024** SeqNo: **4892949**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.67	1.00	7.170	0	65.1	50	130	4.280	8.72	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24020447**

21-Feb-24

Client: TEKLAB Inc,
Project: 24010118 **BatchID:** **72958**

Sample ID: **RLC1-72958** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/14/2024** RunNo: **180457**
Client ID: **BatchQC** Batch ID: **72958** TestNo: **E904.0** **E903-904** Analysis Date: **2/19/2024** SeqNo: **4892951**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	0.8962	0	74.8	50	150				
Yield	1.00			0	0						

Sample ID: **RLC2-72958** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/14/2024** RunNo: **180457**
Client ID: **BatchQC** Batch ID: **72958** TestNo: **E904.0** **E903-904** Analysis Date: **2/19/2024** SeqNo: **4892952**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.32	1.00	0.8962	0	147	50	150				
Yield	1.00			0	0						

Sample ID: **24020780-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/14/2024** RunNo: **180457**
Client ID: **BatchQC** Batch ID: **72958** TestNo: **E904.0** **E903-904** Analysis Date: **2/19/2024** SeqNo: **4892954**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24020447**

21-Feb-24

Client: TEKLAB Inc,
Project: 24010118 **BatchID:** **72958**

Sample ID: **MB-72958** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/14/2024** RunNo: **180466**
Client ID: **PBW** Batch ID: **72958** TestNo: **E903.0** **E903-904** Analysis Date: **2/20/2024** SeqNo: **4893053**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-72958** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/14/2024** RunNo: **180466**
Client ID: **LCSW** Batch ID: **72958** TestNo: **E903.0** **E903-904** Analysis Date: **2/20/2024** SeqNo: **4893054**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	7.56	1.00	8.260	0	91.5	70	130				

Sample ID: **LCSD-72958** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/14/2024** RunNo: **180466**
Client ID: **LCSS02** Batch ID: **72958** TestNo: **E903.0** **E903-904** Analysis Date: **2/20/2024** SeqNo: **4893055**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.97	1.00	8.260	0	84.4	70	130	7.560	8.12	20	

Sample ID: **RLC3-72958** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/14/2024** RunNo: **180466**
Client ID: **BatchQC** Batch ID: **72958** TestNo: **E903.0** **E903-904** Analysis Date: **2/20/2024** SeqNo: **4893057**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24020447**

21-Feb-24

Client: TEKLAB Inc,
Project: 24010118 **BatchID:** **72958**

Sample ID: **RLC3-72958**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/14/2024**	RunNo: **180466**
Client ID: **BatchQC**	Batch ID: **72958**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/20/2024**	SeqNo: **4893057**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.02	1.00	1.000	0	102	50	150				

Sample ID: **RLC4-72958**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/14/2024**	RunNo: **180466**
Client ID: **BatchQC**	Batch ID: **72958**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/20/2024**	SeqNo: **4893058**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	79.0	50	150				

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

24020447

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

12.6-0.2: Cooler Temp: 12.4c Sampler: Teklab Sampler QC Level: 2

Fedex, cooler

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium (226 and 228) by method EPA903.0/904.0
on your standard turnaround time.
Batch QC is required with the report. Receipt summary requested.

Project# 24010118

Contact: Shelly Hennessy Email: shennessy@teklabinc.com
Requested Due Date: 20 business days or less Billing/PO: 35748
Phone: (618) 344-1004 ext. 36

State of Origin: IL

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228		cpm					pH			
	24010118-002	2/1/24 1316	HNO3	Groundwater	✔	✔		15					1			
	24010118-003	2/2/24 1102	HNO3	Groundwater	✔	✔		15					1			
	24010118-006	2/2/24 1007	HNO3	Groundwater	✔	✔		31					1			
	24010118-007	2/2/24 1029	HNO3	Groundwater	✔	✔		34					1			
	24010118-008	2/2/24 1054	HNO3	Groundwater	✔	✔		31					1			
	24010118-009	2/1/24 1427	HNO3	Groundwater	✔	✔		27					1			
			Unpres	Aqueous												
			Unpres	Aqueous												
			Unpres	Aqueous												
			Unpres	Aqueous												
			Unpres	Aqueous												

*Relinquished By	Date/Time	Received By	Date/Time
[illegible]	2/5/24 1700	[illegible]	2/7/24, 1130

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24020447 RcptNo: 1

Logged by:	Tegan A. Richards	2/7/2024 11:30:00 AM	Tegan Richards
Completed By:	Tegan A. Richards	2/7/2024 1:22:39 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	2/7/2024 2:34:24 PM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	12.4	Good	Not Present			

March 21, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 24020902

Dear Eric Staley:

TEKLAB, INC received 5 samples on 2/23/2024 1:07:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24020902
Client Project: FGDS Landfill
Report Date: 21-Mar-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	12
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24020902

Client Project: FGDS Landfill **Report Date:** 21-Mar-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 24020902
Client Project: FGDS Landfill
Report Date: 21-Mar-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24020902
Client Project: FGDS Landfill
Report Date: 21-Mar-24

Cooler Receipt Temp: 3.3 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24020902

Client Project: FGDS Landfill

Report Date: 21-Mar-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: City Water, Light & Power **Work Order:** 24020902

Client Project: FGDS Landfill **Report Date:** 21-Mar-24

Lab ID: 24020902-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 02/23/2024 10:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	02/23/2024 10:00	R343711
Depth to water	*	-5.00		**3.86**	ft	1	02/23/2024 10:00	R343711
Depth to water from measuring point	*	0		**6.66**	ft	1	02/23/2024 10:00	R343711
Elevation of groundwater surface	*	0		**540.14**	ft	1	02/23/2024 10:00	R343711
Measuring Point Elevation	*	0		**546.80**	ft	1	02/23/2024 10:00	R343711
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	02/23/2024 10:00	R343711
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**12**	NTU	1	02/23/2024 10:00	R343711
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**50.9**	°F	1	02/23/2024 10:00	R343711
SW-846 9040B								
pH, Field	*	1.00		**6.91**		1	02/23/2024 10:00	R343711
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1270**	µmhos/cm @25C	1	02/23/2024 10:00	R343711
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**830**	mg/L	2.5	02/26/2024 12:48	R343638
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**275**	mg/L	10	02/28/2024 15:25	R343726
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.13**	mg/L	1	02/26/2024 13:12	R343547
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**106**	mg/L	5	02/28/2024 15:20	R343732
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0302**	mg/L	1	02/26/2024 19:46	219154
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/26/2024 19:46	219154
Boron	NELAP	0.0200		**0.126**	mg/L	1	02/26/2024 19:46	219154
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/26/2024 19:46	219154
Calcium	NELAP	0.100		**161**	mg/L	1	02/26/2024 19:46	219154
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:46	219154
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:46	219154
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/26/2024 19:46	219154
Lithium	NELAP	0.0050		**0.0139**	mg/L	1	02/26/2024 19:46	219154
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/26/2024 19:46	219154
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	02/28/2024 16:16	219154
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 16:16	219154
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 16:16	219154
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/28/2024 16:16	219154
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	03/06/2024 11:10	219512
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344590
Radium-228	*	0		**See Attached**	pci/L	1	03/08/2024 0:00	R344590

Client: City Water, Light & Power **Work Order:** 24020902

Client Project: FGDS Landfill **Report Date:** 21-Mar-24

Lab ID: 24020902-002 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 02/22/2024 12:49

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.99**	ft	1	02/22/2024 12:49	R343711
Depth to water	*	-5.00		**24.32**	ft	1	02/22/2024 12:49	R343711
Depth to water from measuring point	*	0		**26.50**	ft	1	02/22/2024 12:49	R343711
Elevation of groundwater surface	*	0		**528.30**	ft	1	02/22/2024 12:49	R343711
Measuring Point Elevation	*	0		**554.80**	ft	1	02/22/2024 12:49	R343711
Measuring Point Height Above Land Surface	*	0		**2.18**	ft	1	02/22/2024 12:49	R343711
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**12**	NTU	1	02/22/2024 12:49	R343711
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.6**	°F	1	02/22/2024 12:49	R343711
SW-846 9040B								
pH, Field	*	1.00		**6.93**		1	02/22/2024 12:49	R343711
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1020**	µmhos/cm @25C	1	02/22/2024 12:49	R343711
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**875**	mg/L	2.5	02/23/2024 12:35	R343558
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**229**	mg/L	10	02/23/2024 13:32	R343641
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.15**	mg/L	1	02/23/2024 13:41	R343485
SW-846 9251 (TOTAL)								
Chloride	NELAP	40		**130**	mg/L	10	02/23/2024 13:32	R343643
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.436**	mg/L	1	02/26/2024 19:31	219117
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/26/2024 19:31	219117
Boron	NELAP	0.0200		**0.276**	mg/L	1	02/26/2024 19:31	219117
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/26/2024 19:31	219117
Calcium	NELAP	0.100		**185**	mg/L	1	02/26/2024 19:31	219117
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:31	219117
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:31	219117
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/26/2024 19:31	219117
Lithium	NELAP	0.0050		**0.0132**	mg/L	1	02/26/2024 19:31	219117
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/26/2024 19:31	219117
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 5:12	219117
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 5:12	219117
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 5:12	219117
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/28/2024 5:12	219117
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	03/06/2024 11:13	219512
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/11/2024 0:00	R344590
Radium-228	*	0		**See Attached**	pci/L	1	03/11/2024 0:00	R344590

Client: City Water, Light & Power **Work Order:** 24020902

Client Project: FGDS Landfill **Report Date:** 21-Mar-24

Lab ID: 24020902-003 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 02/23/2024 9:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**524.85**	ft	1	02/23/2024 9:28	R343711
Depth to water	*	-5.00		**1.62**	ft	1	02/23/2024 9:28	R343711
Depth to water from measuring point	*	0		**4.12**	ft	1	02/23/2024 9:28	R343711
Elevation of groundwater surface	*	0		**533.58**	ft	1	02/23/2024 9:28	R343711
Measuring Point Elevation	*	0		**537.70**	ft	1	02/23/2024 9:28	R343711
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	02/23/2024 9:28	R343711
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**16**	NTU	1	02/23/2024 9:28	R343711
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**46.9**	°F	1	02/23/2024 9:28	R343711
SW-846 9040B								
pH, Field	*	1.00		**6.08**		1	02/23/2024 9:28	R343711
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1980**	µmhos/cm @25C	1	02/23/2024 9:28	R343711
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1540**	mg/L	2.5	02/26/2024 12:49	R343638
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**393**	mg/L	20	02/28/2024 15:33	R343726
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.24**	mg/L	1	02/26/2024 13:15	R343547
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**78**	mg/L	5	02/28/2024 15:28	R343732
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.374**	mg/L	1	02/26/2024 19:48	219154
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/26/2024 19:48	219154
Boron	NELAP	0.0200		**1.10**	mg/L	1	02/26/2024 19:48	219154
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/26/2024 19:48	219154
Calcium	NELAP	0.100		**363**	mg/L	1	02/26/2024 19:48	219154
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:48	219154
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:48	219154
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/26/2024 19:48	219154
Lithium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:48	219154
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/26/2024 19:48	219154
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	03/01/2024 16:52	219154
Arsenic	NELAP	0.0010		**0.0029**	mg/L	5	02/28/2024 16:22	219154
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 16:22	219154
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/28/2024 16:22	219154
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	03/06/2024 11:15	219512
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/11/2024 0:00	R344590
Radium-228	*	0		**See Attached**	pci/L	1	03/11/2024 0:00	R344590

Client: City Water, Light & Power **Work Order:** 24020902

Client Project: FGDS Landfill **Report Date:** 21-Mar-24

Lab ID: 24020902-004 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 02/21/2024 10:51

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	02/21/2024 10:51	R343711
Depth to water	*	-5.00		**0.57**	ft	1	02/21/2024 10:51	R343711
Depth to water from measuring point	*	0		**3.87**	ft	1	02/21/2024 10:51	R343711
Elevation of groundwater surface	*	0		**526.11**	ft	1	02/21/2024 10:51	R343711
Measuring Point Elevation	*	0		**529.98**	ft	1	02/21/2024 10:51	R343711
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	02/21/2024 10:51	R343711
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**37**	NTU	1	02/21/2024 10:51	R343711
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.9**	°F	1	02/21/2024 10:51	R343711
SW-846 9040B								
pH, Field	*	1.00		**6.71**		1	02/21/2024 10:51	R343711
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1110**	µmhos/cm @25C	1	02/21/2024 10:51	R343711
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**760**	mg/L	5	02/23/2024 13:45	R343558
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		**155**	mg/L	5	02/22/2024 22:21	R343452
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.12**	mg/L	1	02/23/2024 13:21	R343485
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**31**	mg/L	1	02/22/2024 22:16	R343454
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.626**	mg/L	1	02/26/2024 19:54	219134
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/26/2024 19:54	219134
Boron	NELAP	0.0200		**2.79**	mg/L	1	02/26/2024 19:54	219134
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/26/2024 19:54	219134
Calcium	NELAP	0.100	S	**150**	mg/L	1	02/26/2024 19:54	219134
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:54	219134
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/26/2024 19:54	219134
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	02/26/2024 19:54	219134
Lithium	NELAP	0.0050		**0.0064**	mg/L	1	02/26/2024 19:54	219134
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/26/2024 19:54	219134
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 3:31	219134
Arsenic	NELAP	0.0010		**0.0235**	mg/L	5	02/28/2024 17:34	219134
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/28/2024 3:31	219134
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/28/2024 17:34	219134
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	03/06/2024 11:17	219512
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/11/2024 0:00	R344590
Radium-228	*	0		**See Attached**	pci/L	1	03/11/2024 0:00	R344590

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 24020902
Report Date: 21-Mar-24

Carrier: Tracy Carroll

Received By: AMD

Completed by: Amber Dilallo
On: 22-Feb-24

Reviewed by: Ellie Hopkins
On: 23-Feb-24

Pages to follow: Chain of custody 3 Extra pages included 33

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	3.3	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #90719. - amberdilallo - 2/22/2024 8:43:14 AM

Samples were received on 2/22/24 at 15:40 on ice [7.3C - LTG5]. pH strip #90719. - amberdilallo - 2/22/2024 4:38:19 PM

Samples were received on 2/23/24 at 13:07 on ice [6.7C - LTG#7]. pH strip #90719. Additional Nitric Acid (96331) was needed for R101 & G113 upon arrival at the laboratory. - nickreed - 2/23/2024 2:44:53 PM

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 24020902

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 3.3 °C
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY LTGS
LAB NOTES: 0014 2/21/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 24010117-001

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
TGandl

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24020902-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓
-002	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓
-003	G113		Groundwater	1	2								✓	✓	✓	✓	✓	✓
-004	AW-2	2/21/24 1051	Groundwater	1	2								✓	✓	✓	✓	✓	✓
-005	RW-3	2/21/24 1138	Groundwater	0	0								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
TGandl	2/21/24 1715		2/21/24 1715

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 24020902

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 1.3 °C
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY LTCS
LAB NOTES: 90719

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 24010117-001

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
TCarrd

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24020902-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓
-002	G112	2/22/24 1249	Groundwater	1	2								✓	✓	✓	✓	✓	✓
-003	G113		Groundwater	1	2								✓	✓	✓	✓	✓	✓
-004	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
-005	RW-3		Groundwater	0	0								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carrell	2/22/24 3:40	Emily Sackett	2/22/24 1540

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 24020902

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 6.7 °C 7
Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: ph ✓ 90719 added HNO3 to 2 liters (960331) ES 2/23/24

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 24010117-001

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Culp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24020902-001	R101	2-23-24 / 1000	Groundwater	1	2								✓	✓	✓	✓	✓	✓
-002	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓
-003	G113	2-23-24 / 0928	Groundwater	1	2								✓	✓	✓	✓	✓	✓
-004	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
-005	RW-3		Groundwater	0	0								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Daniel Coup	2-23-24 1:07	Whitney Glynn	2/23/24 1:07

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

ES

Site Samping Event: CWLP Landfill- 1Q24
LIMS Workorder: 24020902
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- Landfill- 1Q 2024

			Weather				Well Condition				
WO Sample	**Well ID**	**Program/ Sample Type**	**Temp (°F)**	**Precipitation**	**Wind Direction**	**Sky**	**Well Pad**	**Casing**	**Protective Cover**	**Reference Mark/ ID**	**Well Locked**
001	R101	Groundwater Sample	43.0	None	SE	Clear	Good	Good	Good	Yes	Yes
002	G112	Groundwater Sample	62.0	None	W	Clear	Good	Good	Good	Yes	**No**
003	G113	Groundwater Sample	42.0	None	SE	Clear	Good	Good	Good	Yes	**No**
004	AW-2	Groundwater Sample	54.0	None	N	Clear	Good	Good	Good	Yes	**No**
005	RW-3	Groundwater Sample	57.0	None	N	Clear	Good	Good	Good	Yes	**No**

Site Samping Event: CWLP Landfill- 1Q24
LIMS Workorder: 24020902
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- Landfill- 1Q 2024

		GW Level Measurement					Purge Activities							
WO Sample	**Well ID**	**Sampler Initials**	**Date/Time**	**DTW (ft)**	**DTB (ft)**	**Water Column**	**Sampler Initials**	**Purge Date**	**Purge Start Time**	**Purge End Time**	**Purging Device**	**Well Diameter (in)**	**Actual Volume Purged (L)**	**Purge Rate (mL/min)**
001	R101	JC	2/23/24 9:47	6.66	35.27	28.61	JC	2/23/2024	09:47	10:00	Submersible Pump	2"	3.0	230.8
002	G112	TAC	2/22/24 12:25	26.50	58.81	32.31	DC	2/22/2024	12:25	12:49	Submersible Pump	2"	7.0	291.7
003	G113	JC	2/23/24 9:11	4.12	12.85	8.73	JC	2/23/2024	09:18	09:28	Submersible Pump	2"	2.5	250.0
004	AW-2	DC	2/21/24 10:07	3.87	32.64	28.77	DC	2/21/2024	10:26	10:51	Peristaltic Pump	2"	6.0	240.0
005	RW-3	DC	2/21/24 11:20	9.10	44.01	34.91	DC	2/21/2024	11:21	11:38	Bladder Pump	2"	4.0	235.3

Site Samping Event: CWLP Landfill- 1Q24
LIMS Workorder: 24020902
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- Landfill- 1Q 2024

		Sampling Activities and Observations									
WO Sample	**Well ID**	**Sampler Initials**	**Date**	**Time**	**Sampling Method**	**Field Filtered**	**Appearance**	**Odor**	**Color**	**Post-Sample DTW (ft)**	**Drawdown (ft)**
001	R101	JC	02/23/24	10:00	Low Flow	Yes	Clear	Slight	none	9.12	**2.46**
002	G112	TAC	02/22/24	12:49	Low Flow	Yes	Clear	None	None	32.75	**6.25**
003	G113	JC	02/23/24	09:28	Low Flow	Yes	Clear	Moderate	none	7.21	**3.09**
004	AW-2	TAC	02/21/24	10:51	Low Flow	Yes	Clear	None	Lt Rust	4.00	0.13
005	RW-3	TAC	02/21/24	11:38	Low Flow	Yes	Clear	None	None	13.25	**4.15**

Site Samping Event: CWLP Landfill- 1Q24
LIMS Workorder: 24020902
Technician(s): DC, JC, TC, BG

Groundwater Sampling Summary
CWLP- Landfill- 1Q 2024

WO Sample	Well ID	COMMENTS
001	R101	
002	G112	
003	G113	
004	AW-2	
005	RW-3	

Site Samping Event: CWLP Landfill- 1Q24
LIMS Workorder: 24020902
Technician(s): DC, JC, TC, BG

Stabilized Field Parameters Summary
CWLP- Landfill- 1Q 2024

Well ID	Date	Time	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	LIMS ID
R101	2/23/2024	10:00	10.5	50.9	6.91	1,266.9	6.73	12.31	14.7	6.66	24020902-001A
G112	2/22/2024	12:49	13.1	55.6	6.93	1,022.2	0.48	11.94	-55.2	26.50	24020902-002A
G113	2/23/2024	9:28	8.3	46.9	6.08	1,981.9	4.34	15.80	-104.4	4.12	24020902-003A
AW-2	2/21/2024	10:51	13.3	55.9	6.71	1,106.3	1.45	36.78	-66.4	3.87	24020902-004A
RW-3	2/21/2024	11:38	14.0	57.2	7.10	647.6	0.78	124.34	-134.4	9.10	24020902-005A

Site Samping Event: CWLP Landfill- 1Q24
LIMS Workorder: 24020902
Technician(s): DC, JC, TC, BG

Groundwater Sampling Form- Groundwater Quality Parameters
CWLP- Landfill- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
R101	2/23/2024	9:51	6.66	10.4	50.7	6.92	1,279.1	7.66	18.12	-0.8
R101	2/23/2024	9:54	6.66	10.8	51.4	6.91	1,267.1	7.08	16.26	4.7
R101	2/23/2024	9:57	6.66	10.5	50.9	6.91	1,265.3	6.88	14.27	10.0
R101	2/23/2024	10:00	6.66	10.5	50.9	6.91	1,266.9	6.73	12.31	14.7

Site Samping Event: CWLP Landfill- 1Q24
LIMS Workorder: 24020902
Technician(s): DC, JC, TC, BG

Groundwater Sampling Form- Groundwater Quality Parameters
CWLP- Landfill- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G112	2/22/2024	12:40	26.50	13.2	55.8	6.95	1,059.2	0.59	10.72	-26.5
G112	2/22/2024	12:43	26.50	13.1	55.6	6.95	1,043.5	0.54	10.44	-39.3
G112	2/22/2024	12:46	26.50	13.1	55.6	6.94	1,029.5	0.51	10.93	-48.5
G112	2/22/2024	12:49	26.50	13.1	55.6	6.93	1,022.2	0.48	11.94	-55.2

Site Samping Event: CWLP Landfill- 1Q24
LIMS Workorder: 24020902
Technician(s): DC, JC, TC, BG

Groundwater Sampling Form- Groundwater Quality Parameters
CWLP- Landfill- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G113	2/23/2024	9:22	4.12	8.0	46.4	6.00	1,974.6	5.56	49.84	-72.7
G113	2/23/2024	9:25	4.12	8.3	46.9	6.06	1,973.4	4.78	17.04	-93.0
G113	2/23/2024	9:28	4.12	8.3	46.9	6.08	1,981.9	4.34	15.80	-104.4

Site Samping Event: CWLP Landfill- 1Q24
LIMS Workorder: 24020902
Technician(s): DC, JC, TC, BG

Groundwater Sampling Form- Groundwater Quality Parameters
CWLP- Landfill- 1Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AW-2	2/21/2024	10:42	3.87	13.2	55.8	6.70	1,123.6	1.69	67.26	-33.8
AW-2	2/21/2024	10:45	3.87	13.3	55.9	6.70	1,119.4	1.61	84.98	-49.2
AW-2	2/21/2024	10:48	3.87	13.3	55.9	6.71	1,111.8	1.52	61.84	-59.2
AW-2	2/21/2024	10:51	3.87	13.3	55.9	6.71	1,106.3	1.45	36.78	-66.4

Second Quarter 2024

July 15, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 24050003

Dear Eric Staley:

TEKLAB, INC received 20 samples on 5/14/2024 2:39:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24050003
Report Date: 15-Jul-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	27
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050003

Client Project: Ash Pond Monitoring Wells **Report Date:** 15-Jul-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 24050003

Client Project: Ash Pond Monitoring Wells
Report Date: 15-Jul-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24050003
Report Date: 15-Jul-24

Cooler Receipt Temp: 12.1 °C

This report was revised on July 15, 2024 per Eric Staley's request to report the reanalysis of Cobalt for AP-11. Please replace report dated June 18, 2024 with this report. SAH 7/15/24

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Client Project: Ash Pond Monitoring Wells

Work Order: 24050003

Report Date: 15-Jul-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050003
Client Project: Ash Pond Monitoring Wells
Report Date: 15-Jul-24
Lab ID: 24050003-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 05/09/2024 12:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	05/09/2024 12:12	R347528
Depth to water	*	-5.00		**5.17**	ft	1	05/09/2024 12:12	R347528
Depth to water from measuring point	*	0		**7.87**	ft	1	05/09/2024 12:12	R347528
Elevation of groundwater surface	*	0		**531.63**	ft	1	05/09/2024 12:12	R347528
Measuring Point Elevation	*	0		**539.50**	ft	1	05/09/2024 12:12	R347528
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	05/09/2024 12:12	R347528
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**23**	NTU	1	05/09/2024 12:12	R347528
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.1**	°F	1	05/09/2024 12:12	R347528
SW-846 9040B								
pH, Field	*	1.00		**6.70**		1	05/09/2024 12:12	R347528
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**644**	µmhos/cm @25C	1	05/09/2024 12:12	R347528
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**345**	mg/L	2.5	05/15/2024 12:24	R347402
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**< 10**	mg/L	1	05/21/2024 0:32	R347580
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.40**	mg/L	1	05/20/2024 13:43	R347555
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**28**	mg/L	1	05/21/2024 0:32	R347642
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.143**	mg/L	1	05/15/2024 13:36	222813
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/15/2024 13:36	222813
Boron	NELAP	0.0200		**0.154**	mg/L	1	05/15/2024 13:36	222813
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/15/2024 13:36	222813
Calcium	NELAP	0.100		**65.6**	mg/L	1	05/15/2024 13:36	222813
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/15/2024 13:36	222813
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/15/2024 13:36	222813
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	05/15/2024 13:36	222813
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	05/20/2024 11:21	222813
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/15/2024 13:36	222813
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/14/2024 16:35	222813
Arsenic	NELAP	0.0010		**0.188**	mg/L	5	05/14/2024 16:35	222813
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/14/2024 16:35	222813
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/15/2024 17:05	222813
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/24/2024 9:40	223373
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/03/2024 0:00	R348779
Radium-228	*	0		**See Attached**	pci/L	1	06/03/2024 0:00	R348779

Client: City Water, Light & Power
Work Order: 24050003
Client Project: Ash Pond Monitoring Wells
Report Date: 15-Jul-24
Lab ID: 24050003-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 05/13/2024 11:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	05/13/2024 11:53	R347528
Depth to water	*	-5.00		**4.55**	ft	1	05/13/2024 11:53	R347528
Depth to water from measuring point	*	0		**7.05**	ft	1	05/13/2024 11:53	R347528
Elevation of groundwater surface	*	0		**529.05**	ft	1	05/13/2024 11:53	R347528
Measuring Point Elevation	*	0		**536.10**	ft	1	05/13/2024 11:53	R347528
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	05/13/2024 11:53	R347528
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.9**	NTU	1	05/13/2024 11:53	R347528
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.2**	°F	1	05/13/2024 11:53	R347528
SW-846 9040B								
pH, Field	*	1.00		**6.21**		1	05/13/2024 11:53	R347528
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1290**	µmhos/cm @25C	1	05/13/2024 11:53	R347528
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1040**	mg/L	2.5	05/17/2024 10:40	R347497
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**411**	mg/L	20	05/21/2024 0:48	R347580
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.23**	mg/L	1	05/20/2024 13:46	R347555
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**36**	mg/L	2	05/21/2024 0:43	R347642
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0607**	mg/L	1	05/22/2024 13:30	223266
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/22/2024 13:30	223266
Boron	NELAP	0.0200		**3.43**	mg/L	1	05/29/2024 12:39	223266
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/22/2024 13:30	223266
Calcium	NELAP	0.100		**194**	mg/L	1	05/22/2024 13:30	223266
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/22/2024 13:30	223266
Cobalt	NELAP	0.0050		**0.0102**	mg/L	1	05/22/2024 13:30	223266
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	05/22/2024 13:30	223266
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	05/30/2024 10:36	223266
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/22/2024 13:30	223266
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0021**	mg/L	5	05/22/2024 19:34	223266
Arsenic	NELAP	0.0010		**0.0020**	mg/L	5	05/22/2024 19:34	223266
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/22/2024 19:34	223266
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/22/2024 19:34	223266
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2024 16:22	223231
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/03/2024 0:00	R348779
Radium-228	*	0		**See Attached**	pci/L	1	06/03/2024 0:00	R348779

Client: City Water, Light & Power
Work Order: 24050003
Client Project: Ash Pond Monitoring Wells
Report Date: 15-Jul-24
Lab ID: 24050003-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 05/13/2024 12:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.75**	ft	1	05/13/2024 12:43	R347528
Depth to water	*	-5.00		**6.46**	ft	1	05/13/2024 12:43	R347528
Depth to water from measuring point	*	0		**9.11**	ft	1	05/13/2024 12:43	R347528
Elevation of groundwater surface	*	0		**526.44**	ft	1	05/13/2024 12:43	R347528
Measuring Point Elevation	*	0		**535.55**	ft	1	05/13/2024 12:43	R347528
Measuring Point Height Above Land Surface	*	0		**2.65**	ft	1	05/13/2024 12:43	R347528
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.7**	NTU	1	05/13/2024 12:43	R347528
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.9**	°F	1	05/13/2024 12:43	R347528
SW-846 9040B								
pH, Field	*	1.00		**6.36**		1	05/13/2024 12:43	R347528
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1220**	µmhos/cm @25C	1	05/13/2024 12:43	R347528
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1040**	mg/L	2.5	05/17/2024 10:40	R347497
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**493**	mg/L	20	05/21/2024 0:56	R347580
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.19**	mg/L	1	05/20/2024 13:48	R347555
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**53**	mg/L	2	05/21/2024 0:51	R347642
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0767**	mg/L	1	05/23/2024 13:19	223235
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/23/2024 13:19	223235
Boron	NELAP	0.0200		**14.5**	mg/L	1	05/29/2024 13:26	223235
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/23/2024 13:19	223235
Calcium	NELAP	0.100		**176**	mg/L	1	05/23/2024 13:19	223235
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/23/2024 13:19	223235
Cobalt	NELAP	0.0050		**0.0065**	mg/L	1	05/23/2024 13:19	223235
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	05/23/2024 13:19	223235
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	05/30/2024 10:43	223235
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/23/2024 13:19	223235
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/23/2024 22:39	223235
Arsenic	NELAP	0.0010		**0.0021**	mg/L	5	05/23/2024 22:39	223235
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/23/2024 22:39	223235
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/23/2024 22:39	223235
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2024 16:24	223231
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/03/2024 0:00	R348779
Radium-228	*	0		**See Attached**	pci/L	1	06/03/2024 0:00	R348779

Client: City Water, Light & Power
Work Order: 24050003
Client Project: Ash Pond Monitoring Wells
Report Date: 15-Jul-24
Lab ID: 24050003-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 05/14/2024 11:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	05/14/2024 11:21	R347528
Depth to water	*	-5.00		**7.21**	ft	1	05/14/2024 11:21	R347528
Depth to water from measuring point	*	0		**9.87**	ft	1	05/14/2024 11:21	R347528
Elevation of groundwater surface	*	0		**529.15**	ft	1	05/14/2024 11:21	R347528
Measuring Point Elevation	*	0		**539.02**	ft	1	05/14/2024 11:21	R347528
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	05/14/2024 11:21	R347528
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**18**	NTU	1	05/14/2024 11:21	R347528
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.5**	°F	1	05/14/2024 11:21	R347528
SW-846 9040B								
pH, Field	*	1.00		**7.15**		1	05/14/2024 11:21	R347528
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**441**	µmhos/cm @25C	1	05/14/2024 11:21	R347528
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**340**	mg/L	2.5	05/17/2024 10:41	R347497
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**11**	mg/L	1	05/21/2024 1:49	R347580
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.38**	mg/L	1	05/20/2024 14:04	R347555
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**43**	mg/L	1	05/21/2024 1:50	R347642
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0915**	mg/L	1	05/23/2024 13:36	223235
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/23/2024 13:36	223235
Boron	NELAP	0.0200		**0.0978**	mg/L	1	05/24/2024 14:23	223235
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/23/2024 13:36	223235
Calcium	NELAP	0.100		**52.3**	mg/L	1	05/23/2024 13:36	223235
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/23/2024 13:36	223235
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/23/2024 13:36	223235
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	05/23/2024 13:36	223235
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	05/30/2024 10:48	223235
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/23/2024 13:36	223235
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/23/2024 22:58	223235
Arsenic	NELAP	0.0010		**0.0395**	mg/L	5	05/23/2024 22:58	223235
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/23/2024 22:58	223235
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/23/2024 22:58	223235
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2024 19:09	223259
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/03/2024 0:00	R348779
Radium-228	*	0		**See Attached**	pci/L	1	06/03/2024 0:00	R348779

Client: City Water, Light & Power
Work Order: 24050003
Client Project: Ash Pond Monitoring Wells
Report Date: 15-Jul-24
Lab ID: 24050003-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 05/10/2024 10:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	05/10/2024 10:35	R347528
Depth to water	*	-5.00		**0.84**	ft	1	05/10/2024 10:35	R347528
Depth to water from measuring point	*	0		**3.74**	ft	1	05/10/2024 10:35	R347528
Elevation of groundwater surface	*	0		**533.46**	ft	1	05/10/2024 10:35	R347528
Measuring Point Elevation	*	0		**537.20**	ft	1	05/10/2024 10:35	R347528
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	05/10/2024 10:35	R347528
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**34**	NTU	1	05/10/2024 10:35	R347528
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.3**	°F	1	05/10/2024 10:35	R347528
SW-846 9040B								
pH, Field	*	1.00		**7.03**		1	05/10/2024 10:35	R347528
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**917**	µmhos/cm @25C	1	05/10/2024 10:35	R347528
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**590**	mg/L	2.5	05/15/2024 15:57	R347402
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10	SR	**< 10**	mg/L	1	05/21/2024 1:59	R347580
Matrix spike and RPD did not recover within control limits due to matrix interference.								
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.28**	mg/L	1	05/20/2024 14:14	R347555
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		**26**	mg/L	2	05/21/2024 2:27	R347642
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.373**	mg/L	1	05/15/2024 13:37	222813
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/15/2024 13:37	222813
Boron	NELAP	0.0200		**0.0877**	mg/L	1	05/15/2024 13:37	222813
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/15/2024 13:37	222813
Calcium	NELAP	0.100		**99.4**	mg/L	1	05/15/2024 13:37	222813
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/15/2024 13:37	222813
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/15/2024 13:37	222813
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	05/15/2024 13:37	222813
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	05/20/2024 11:24	222813
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/15/2024 13:37	222813
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/14/2024 16:46	222813
Arsenic	NELAP	0.0010		**0.0461**	mg/L	5	05/14/2024 16:46	222813
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/14/2024 16:46	222813
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/15/2024 17:15	222813
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/24/2024 19:41	223389
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/03/2024 0:00	R348779
Radium-228	*	0		**See Attached**	pci/L	1	06/03/2024 0:00	R348779

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24050003
Report Date: 15-Jul-24

Carrier: Daniel Crump
Received By: NR

Completed by: Paul Schultz
On: 10-May-24

Reviewed by: Ellie Hopkins
On: 14-May-24

Pages to follow: Chain of custody 6 Extra pages included 74

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	12.1
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐		
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐			

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #96651. - pschultz - 5/10/2024 9:15:35 AM
Additional Nitric Acid (97737) was needed for sample T-2 upon arrival at the laboratory. - pschultz - 5/10/2024 9:15:38 AM

Samples were received on 5/10/2024 at 13:30 on ice [8.3C - LTG#7]. pH strip #96651. WO - pschultz - 5/10/2024 2:41:25 PM

Samples were received on 5/13/2024 at 16:10 on ice [19.3C - LTG#7]. pH strip #96651. NR - pschultz - 5/13/2024 4:45:02 PM
Additional Nitric Acid (97737) was needed for AR-10 upon arrival at the laboratory. NR - pschultz - 5/13/2024 4:45:05 PM

Samples were received on 5/14/2024 at 14:39 on ice [8.1C - LTG#7]. pH strip #96651. NR - pschultz - 5/14/2024 3:02:50 PM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24050003

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 12.1 °C LT6#5
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: pH/Cl ok's!
Added HNO_3 (9225) to T-2 955/10

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
TCarrell

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24050003-001	RW-3	5/9/24 1212	Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	AP-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	AP-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	AP-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	AP-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	AP-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	AP-7		Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AP-8		Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AP-9		Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	AP-10		Groundwater	1	2								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
Daniel Crump	5-9 1635	Krista Reed	5/9/24 1635

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24050003

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 12.1 °C TGH

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

Client Comments:

*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER

Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

TCarroll

RESULTS REQUESTED

☑ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24050003-012	AP-11	14:28 5/9/24 TE ~~5/10~~ 5/9/24	Groundwater	1	2								✔	✔	✔	✔	✔	✔
013	AP-12	5/9/24 13:14	Groundwater	1	2								✔	✔	✔	✔	✔	✔
014	AP-13	5/9/24 1350	Groundwater	1	2								✔	✔	✔	✔	✔	✔
015	AP-14	TE 5/9/24 5/22/24	Groundwater	1	2								✔	✔	✔	✔	✔	✔
016	T-1	11:10 5/9/24 ~~1428~~	Groundwater	1	2								✔	✔	✔	✔	✔	✔
017	T-2	5/9/24 1145	Groundwater	1	2								✔	✔	✔	✔	✔	✔
018	T-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
019	T-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔
020	T-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Daniel Crump	5-9-1635	Brian Koch	5/9/24 1635

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24050003

1-T6-7

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 8.3 °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: pH Y 916657 5/10 JD

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: Justin Gelp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24050003-001	RW-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	AP-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	AP-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	AP-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	AP-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	AP-6	5-10-24 / 1013	Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	AP-7		Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AP-8	5-10-24 / 1035	Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AP-9		Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	AP-10		Groundwater	1	2								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
J. Gelp	5-10-24 / 1330	[signature]	5/10/24 1330

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24050003

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 1.9.3 °C LTG-7
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: Added HNO_3 (97737) to AR-10 96651 MM 5/13

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
Ash Pond Monitoring Wells	Justin Colp

RESULTS REQUESTED: [✓] Standard [ ] 1-2 Day (100% Surcharge) [ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24050003-001	RW-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1	5-13-24 / 1101	Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2	5-13-24 / 1153	Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3	5-13-24 / 1243	Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4	5-13-24 / 1325	Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5	~~5-13-24~~	Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10	5-13-24 / 1408	Groundwater	1	2								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Daniel Crump	5-13-24 / 1610	Whitney Queen	5/13/24 1610

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24050003

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 4.0 °C LAB#1
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: 9665 ma 5/14

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Gay

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24050003-001	RW-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5	5-14-24 / 0954	Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7	5-14-24 / 1121	Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9	5-14-24 / 1145	Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Daniel Crump	5-14-24 / 1439	[signature]	5/14/24 1439

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24050003

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24050003-012	AP-11		Groundwater	1	2								✔	✔	✔	✔	✔	✔
013	AP-12		Groundwater	1	2								✔	✔	✔	✔	✔	✔
014	AP-13		Groundwater	1	2								✔	✔	✔	✔	✔	✔
015	AP-14	5-14-24 / 1038	Groundwater	1	2								✔	✔	✔	✔	✔	✔
016	T-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
017	T-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
018	T-4	5-14-24 / 1236	Groundwater	1	2								✔	✔	✔	✔	✔	✔
019	T-5	5-14-24 / 1103	Groundwater	1	2								✔	✔	✔	✔	✔	✔
020	T-6	5-14-24 / 1155	Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Daniel Gump	5-14-24 / 1439		5/14/24 1439

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Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- Ash Ponds- 2Q 2024

			Weather				Well Condition				
WO Sample	**Well ID**	**Program/ Sample Type**	**Temp (°F)**	**Precipitation**	**Wind Direction**	**Sky**	**Well Pad**	**Casing**	**Protective Cover**	**Reference Mark/ ID**	**Well Locked**
001	RW-3	Groundwater Sample	73.0	None	S	Partly cloudy	Good	Good	Good	Yes	No
002	AP-1	Groundwater Sample	68.0	None	N	Cloudy	Good	Good	Good	Yes	No
003	AP-2	Groundwater Sample	70.0	None	N	Cloudy	Good	Good	Good	Yes	No
004	AP-3	Groundwater Sample	69.0	Light	N	Cloudy	Good	Good	Good	Yes	No
005	AP-4	Groundwater Sample	73.0	None	S	Cloudy	Good	Good	Good	Yes	No
006	AP-5	Groundwater Sample	64.0	Light	E	Cloudy	Good	Good	Good	Yes	No
007	AP-6	Groundwater Sample	68.0	None	W	Partly cloudy	Good	Good	Good	Yes	No
008	AP-7	Groundwater Sample	65.0	None	E	Cloudy	Good	Good	Good	Yes	No
009	AP-8	Groundwater Sample	59.0	None	E	Clear	Good	Good	Good	Yes	No
010	AP-9	Groundwater Sample	65.0	None	E	Cloudy	Good	Good	Good	Yes	No
011	AP-10	Groundwater Sample	71.0	Light	N	Partly cloudy	Good	Good	Good	Yes	No
012	AP-11	Groundwater Sample	72.0	None	E	Partly cloudy	Good	Good	Good	Yes	No
013	AP-12	Groundwater Sample	72.0	None	E	Cloudy	Good	Good	Good	Yes	No
014	AP-13	Groundwater Sample	72.0	None	E	Partly cloudy	Good	Good	Good	Yes	No
015	AP-14	Groundwater Sample	64.0	Heavy	E	Cloudy	Good	Good	Good	Yes	No
016	T-1	Groundwater Sample	70.0	None	E	Cloudy	Good	Good	Good	Yes	No
017	T-2	Groundwater Sample	71.0	None	E	Cloudy	Good	Good	Good	Yes	No
018	T-4	Groundwater Sample	70.0	None	W	Cloudy	Good	Good	Good	Yes	No
019	T-5	Groundwater Sample	65.0	Light	W	Cloudy	Good	Good	Good	Yes	No
020	T-6	Groundwater Sample	68.0	None	W	Cloudy	Good	Good	Good	Yes	No

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- Ash Ponds- 2Q 2024

		GW Level Measurement				Purge Activities							
WO Sample	**Well ID**	**Sampler Initials**	**Date/Time**	**DTW (ft)**	**DTB (ft)**	**Sampler Initials**	**Purge Date**	**Purge Start Time**	**Purge End Time**	**Purging/Sampling Device**	**Well Diameter (in)**	**Actual Volume Purged (L)**	**Purge Rate (mL/min)**
001	RW-3	TAC	5/9/24 11:19	7.87	44.01	TAC	5/9/2024	11:23	12:12	Bladder Pump	2"	9.0	183.7
002	AP-1	PY	5/13/24 10:25	8.88	31.08	PY	5/13/2024	10:29	11:01	Bladder Pump	2"	11.0	343.7
003	AP-2	PY	5/13/24 11:24	7.05	21.33	PY	5/13/2024	11:25	11:53	Bladder Pump	2"	11.0	392.9
004	AP-3	PY	5/13/24 12:10	9.11	20.80	PY	5/13/2024	12:12	12:43	Bladder Pump	2"	13.0	419.4
005	AP-4	JC	5/13/24 13:08	8.68	60.41	JC	5/13/2024	13:08	13:25	Bladder Pump	2"	5.0	294.1
006	AP-5	JC	5/14/24 9:43	13.60	31.27	JC	5/14/2024	09:43	09:54	Bladder Pump	2"	3.0	272.7
007	AP-6	TAC	5/10/24 9:25	6.57	39.62	TAC	5/10/2024	09:26	10:13	Bladder Pump	2"	8.0	170.2
008	AP-7	JC	5/14/24 11:00	9.87	42.52	JC	5/14/2024	11:01	11:21	Bladder Pump	2"	4.0	200.0
009	AP-8	BG	5/10/24 9:54	3.74	39.60	BG	5/10/2024	09:54	10:35	Peristaltic Pump	2"	5.0	122.0
010	AP-9	JC	5/14/24 11:31	11.87	39.60	JC	5/28/1901	11:31	11:45	Bladder Pump	2"	4.0	285.7
011	AP-10	PY	5/13/24 13:16	2.54	38.07	PY	5/13/2024	13:23	14:08	Peristaltic Pump	2"	13.5	300.0
012	AP-11	BG	5/9/24 13:59	9.75	22.95	BG	5/9/2024	13:59	14:28	Peristaltic Pump	2"	8.5	293.1
013	AP-12	BG	5/9/24 12:26	12.24	30.40	BG	5/9/2024	12:26	13:14	Peristaltic Pump	2"	5.0	104.2
014	AP-13	BG	5/9/24 13:26	10.82	31.00	BG	5/9/2024	13:26	13:50	Peristaltic Pump	2"	2.0	83.3
015	AP-14	JC	5/14/24 10:12	1.55	31.20	JC	5/14/2024	10:12	10:38	Submersible Pump	2"	10.0	384.6
016	T-1	BG	5/9/24 12:15	9.78	22.95	BG	5/9/2024	10:44	11:10	Peristaltic Pump	2"	3.0	115.4
017	T-2	BG	5/9/24 11:22	19.25	34.44	BG	5/9/2024	11:22	11:45	Peristaltic Pump	2"	3.0	130.4
018	T-4	PY	5/14/24 12:09	12.72	27.42	PY	5/14/2024	12:10	12:36	Peristaltic Pump	2"	8.0	307.7
019	T-5	PY	5/14/24 10:26	5.30	22.34	Py	5/14/2024	10:31	11:03	Peristaltic Pump	2"	8.0	250.0
020	T-6	py	5/14/24 11:15	8.45	43.62	PY	5/14/2024	11:20	11:55	Peristaltic Pump	2"	8.0	228.6

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- Ash Ponds- 2Q 2024

		Sampling Activities and Observations									
WO Sample	**Well ID**	**Sampler Initials**	**Date**	**Time**	**Sampling Method**	**Field Filtered**	**Appearance**	**Odor**	**Color**	**Post-Sample DTW (ft)**	**Drawdown (ft)**
001	RW-3	TAC	05/09/24	12:12	Low Flow	Yes	Clear	None	None	14.87	**7.00**
002	AP-1	TAC	05/13/24	11:01	Low Flow	No	Clear	None	None	9.26	0.38
003	AP-2	TAC	05/13/24	11:53	Low Flow	No	Clear	None	None	7.17	0.12
004	AP-3	TAC	05/13/24	12:43	Low Flow	No	Clear	None	None	9.30	0.19
005	AP-4	JC	05/13/24	13:25	Low Flow	No	Clear	None	none	9.05	0.37
006	AP-5	JC	05/14/24	09:54	Low Flow	No	Clear	None	none	14.51	**0.91**
007	AP-6	TAC	05/10/24	10:13	Low Flow	No	Clear	None	None	15.10	**8.53**
008	AP-7	JC	05/14/24	11:21	Low Flow	No	Clear	None	none	12.47	**2.60**
009	AP-8	BG	05/10/24	`1035	Low Flow	No	Clear	None	CLEAR	4.04	0.30
010	AP-9	JC	05/14/24	11:45	Low Flow	No	Slightly cloudy	None	lt brown	12.46	**0.59**
011	AP-10	TAC	05/13/24	14:08	Low Flow	No	Clear	None	None	2.81	0.27
012	AP-11	BG	05/09/24	14:28	Low Flow	No	Slightly cloudy	Slight	LT BROWN	9.86	0.11
013	AP-12	BG	05/09/24	13:14	Low Flow	No	Cloudy	Moderate	GRAY	13.25	**1.01**
014	AP-13	BG	05/09/24	13:50	Low Flow	No	Clear	Slight	Lt GRAY	11.02	0.20
015	AP-14	JC	05/14/24	10:38	Low Flow	No	Clear	None	none	1.89	0.34
016	T-1	BG	05/09/24	11:10	Low Flow	No	Clear	None	Clear	10.42	**0.64**
017	T-2	BG	05/09/24	11:45	Low Flow	No	Clear	None	CLEAR	20.12	**0.87**
018	T-4	TAC	05/14/24	12:36	Low Flow	No	Clear	None	None	14.26	**1.54**
019	T-5	TAC	05/14/24	11:03	Low Flow	No	Clear	None	None	6.36	**1.06**
020	T-6	TAC	05/14/24	11:55	Low Flow	No	Clear	None	None	8.89	0.44

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- Ash Ponds- 2Q 2024

WO Sample	Well ID	COMMENTS
001	RW-3	
002	AP-1	
003	AP-2	
004	AP-3	
005	AP-4	
006	AP-5	
007	AP-6	
008	AP-7	
009	AP-8	
010	AP-9	
011	AP-10	
012	AP-11	
013	AP-12	
014	AP-13	
015	AP-14	
016	T-1	
017	T-2	
018	T-4	
019	T-5	
020	T-6	

Site Samping Event: CWLP- 2Q24

LIMS Workorder: 24050003

Technician(s): DC, JC, TC, BG, PY

Stabilized Field Parameters Summary

CWLP- Ash Ponds- 2Q 2024

Well ID	Date	Time	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	LIMS ID
RW-3	5/9/2024	12:12	15.1	59.14	6.70	644.4	0.82	23.40	-105.9	7.87	24050003-001A
AP-1	5/13/2024	11:01	14.7	58.50	6.31	1,758.0	0.69	5.74	-86.5	8.88	24050003-002A
AP-2	5/13/2024	11:53	15.1	59.18	6.21	1,286.5	0.68	4.90	-5.8	7.05	24050003-003A
AP-3	5/13/2024	12:43	16.0	60.86	6.36	1,218.9	0.68	2.72	-53.2	9.11	24050003-004A
AP-4	5/13/2024	13:25	17.2	62.96	6.83	588.1	0.40	23.97	-122.8	8.68	24050003-005A
AP-5	5/14/2024	9:54	13.6	56.49	6.99	468.0	0.71	5.17	-67.9	13.60	24050003-006A
AP-6	5/10/2024	10:13	13.5	56.26	7.27	661.5	3.05	18.97	-20.0	6.57	24050003-007A
AP-7	5/14/2024	11:21	14.2	57.47	7.15	440.8	0.92	17.95	-122.2	9.87	24050003-008A
AP-8	5/10/2024	10:35	15.2	59.32	7.03	916.7	1.05	33.67	-116.8	3.74	24050003-009A
AP-9	5/14/2024	11:45	14.6	58.19	6.75	658.9	0.41	39.76	-40.2	11.87	24050003-010A
AP-10	5/13/2024	14:08	15.8	60.36	6.54	1,142.7	1.49	6.02	-81.1	2.54	24050003-011A
AP-11	5/9/2024	14:28	17.7	63.82	6.75	1,351.2	2.84	60.05	-61.7	9.75	24050003-012A
AP-12	5/9/2024	13:14	15.8	60.52	6.52	1,675.9	1.31	88.76	-60.3	12.24	24050003-013A
AP-13	5/9/2024	13:50	16.3	61.41	6.70	804.3	2.21	5.64	-73.7	10.82	24050003-014A
AP-14	5/14/2024	10:38	13.6	56.43	6.95	1,124.6	0.14	2.92	-48.8	1.55	24050003-015A
T-1	5/9/2024	11:10	14.1	57.40	6.57	780.0	1.98	2.28	30.9	9.78	24050003-016A
T-2	5/9/2024	11:45	14.9	58.79	6.51	1,979.6	2.28	3.93	14.9	19.25	24050003-017A
T-4	5/14/2024	12:36	12.8	55.03	6.31	463.7	1.11	8.09	-2.7	12.72	24050003-018A
T-5	5/14/2024	11:03	12.3	54.09	6.62	489.5	1.35	5.40	-1.5	5.30	24050003-019A
T-6	5/14/2024	11:55	14.6	58.34	6.56	852.5	1.03	32.75	-93.5	8.45	24050003-020A

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- GW Quality Parameters
CWLP- Ash Ponds- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
RW-3	5/9/2024	11:42	7.87	14.5	58.2	6.69	602.3	1.26	10.26	-78.5
RW-3	5/9/2024	11:45	7.87	14.5	58.2	6.69	608.1	1.20	11.81	-82.6
RW-3	5/9/2024	11:48	7.87	14.8	58.6	6.69	611.2	1.15	14.38	-85.6
RW-3	5/9/2024	11:51	7.87	15.0	59.0	6.68	619.0	1.10	17.50	-88.8
RW-3	5/9/2024	11:54	7.87	14.9	58.9	6.68	629.8	1.02	23.27	-93.1
RW-3	5/9/2024	11:57	7.87	14.9	58.9	6.68	634.7	0.97	23.78	-96.7
RW-3	5/9/2024	12:00	7.87	15.0	58.9	6.68	637.4	0.93	27.74	-99.1
RW-3	5/9/2024	12:03	7.87	15.0	58.9	6.69	640.9	0.89	18.67	-101.4
RW-3	5/9/2024	12:06	7.87	14.9	58.7	6.69	642.7	0.87	18.32	-103.1
RW-3	5/9/2024	12:09	7.87	15.0	59.0	6.69	642.8	0.84	18.38	-104.6
RW-3	5/9/2024	12:12	7.87	15.1	59.1	6.70	644.4	0.82	23.40	-105.9

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- GW Quality Parameters
CWLP- Ash Ponds- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-2	5/13/2024	11:35	7.05	13.5	56.3	6.26	1,257.7	1.06	15.63	-9.9
AP-2	5/13/2024	11:38	7.05	13.6	56.4	6.23	1,261.1	0.90	10.12	-7.8
AP-2	5/13/2024	11:41	7.05	13.6	56.5	6.22	1,267.6	0.81	8.13	-6.6
AP-2	5/13/2024	11:44	7.05	13.6	56.5	6.21	1,274.1	0.75	7.60	-5.7
AP-2	5/13/2024	11:47	7.05	13.6	56.5	6.20	1,282.5	0.70	6.27	-5.1
AP-2	5/13/2024	11:50	7.05	14.9	58.8	6.20	1,279.4	0.68	5.98	-5.6
AP-2	5/13/2024	11:53	7.05	15.1	59.2	6.21	1,286.5	0.68	4.90	-5.8

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- GW Quality Parameters
CWLP- Ash Ponds- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-3	5/13/2024	12:25	9.11	13.8	56.8	6.38	1,211.7	0.90	4.95	-52.3
AP-3	5/13/2024	12:28	9.11	13.8	56.8	6.37	1,212.2	0.80	4.33	-53.6
AP-3	5/13/2024	12:31	9.11	13.8	56.8	6.36	1,213.0	0.74	3.58	-54.0
AP-3	5/13/2024	12:34	9.11	13.8	56.8	6.35	1,212.9	0.69	3.39	-54.4
AP-3	5/13/2024	12:37	9.11	14.9	58.8	6.35	1,198.9	0.67	3.08	-54.7
AP-3	5/13/2024	12:40	9.11	15.7	60.3	6.35	1,213.7	0.68	2.95	-54.6
AP-3	5/13/2024	12:43	9.11	16.0	60.9	6.36	1,218.9	0.68	2.72	-53.2

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- GW Quality Parameters
CWLP- Ash Ponds- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-7	5/14/2024	11:03	9.87	13.9	57.0	7.27	422.2	1.76	10.35	-106.4
AP-7	5/14/2024	11:06	9.87	14.3	57.7	7.15	435.9	0.74	24.14	-136.6
AP-7	5/14/2024	11:09	9.87	14.0	57.2	7.13	457.1	0.82	56.85	-134.2
AP-7	5/14/2024	11:12	9.87	13.9	57.1	7.14	443.5	0.93	30.37	-126.5
AP-7	5/14/2024	11:15	9.87	14.0	57.2	7.15	438.8	0.96	18.73	-123.1
AP-7	5/14/2024	11:18	9.87	14.0	57.1	7.15	439.0	0.94	15.25	-122.2
AP-7	5/14/2024	11:21	9.87	14.2	57.5	7.15	440.8	0.92	17.95	-122.2

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- GW Quality Parameters
CWLP- Ash Ponds- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-8	5/10/2024	10:05	3.74	14.3	57.8	7.04	919.3	1.52	37.07	-118.2
AP-8	5/10/2024	10:08	3.74	14.4	57.9	7.04	913.6	1.47	39.30	-117.1
AP-8	5/10/2024	10:11	3.74	15.0	59.0	7.03	916.0	1.50	43.50	-116.5
AP-8	5/10/2024	10:14	3.74	14.3	57.8	7.03	918.1	1.38	30.38	-116.8
AP-8	5/10/2024	10:17	3.74	14.2	57.5	7.03	914.2	1.28	27.88	-117.5
AP-8	5/10/2024	10:20	3.74	14.5	58.2	7.03	915.8	1.18	30.64	-118.3
AP-8	5/10/2024	10:23	3.74	14.3	57.7	7.03	916.7	1.17	23.09	-118.3
AP-8	5/10/2024	10:26	3.74	14.5	58.0	7.03	915.1	1.12	25.30	-118.0
AP-8	5/10/2024	10:29	3.74	14.5	58.2	7.02	915.9	1.11	30.18	-117.8
AP-8	5/10/2024	10:32	3.74	14.8	58.7	7.03	916.3	1.07	32.46	-117.5
AP-8	5/10/2024	10:35	3.74	15.2	59.3	7.03	916.7	1.05	33.67	-116.8

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- Ash Ponds- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 26599 Technician(s): B. Gillihan Date: 5/9/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/9/24 9:25
7.0 Buffer	WC240307F	7.00	5/9/24 9:37
10.0 Buffer	WC231027D	10.01	5/9/24 9:40
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/9/24 9:42

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.5	5/9/24 9:51
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	5/9/24 18:30	18.96	7.00	1,412	1.5		
CCV-1	CCV	5/9/24 18:29	20.62	7.02	1,413	1.5		

Comments:

Field Meter ID: Pine 26599 Technician(s): B. Gillihan Date: 5/10/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.01	5/10/24 8:54
7.0 Buffer	WC240307F	7.02	5/10/24 16:36
10.0 Buffer	WC231027D	10.00	5/10/24 16:36
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1413	5/10/24 16:38

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.5	5/10/24 16:38
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2	LCS	5/10/24 16:38	18.65	7.01	1,413	1.5		
CCV-2	CCV	5/10/24 16:39	20.64	7.02	1,415	1.4		

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- Ash Ponds- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 26599 Technician(s): B. Gillihan Date: 5/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/13/24 9:29
7.0 Buffer	WC240307F	7.03	5/13/24 9:36
10.0 Buffer	WC231027D	10.01	5/13/24 9:42
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1415	5/13/24 9:51

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.6	5/13/24 9:58
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3	LCS	5/13/24 10:05	19.72	7.02	1,415	1.6		
CCV-3	CCV	5/13/24 11:05	20.01	7.01	1,415	1.5		

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- Ash Ponds- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45986 Technician(s): Daniel Crump/Tracy Carroll Date: 5/8/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/8/24 10:09
7.0 Buffer	WC240307F	7.01	5/8/24 10:07
10.0 Buffer	WC230619B	10.00	5/8/24 10:11
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/8/24 10:14

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	5/8/24 10:16	22.9	7.09	1,413			
CCV-1	CCV	5/8/24 13:21	21	7.02	1,439			

Comments:

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll Date: 5/9/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/9/24 11:02
7.0 Buffer	WC240307F	7.02	5/9/24 11:01
10.0 Buffer	WC230619B	10.00	5/9/24 11:03
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/9/24 11:11

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2	LCS	5/9/24 11:16	24.2	7.06	1,413			
CCV-2	CCV	5/9/24 15:03	25.2	7.08	1,488			

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- Ash Ponds- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll Date: 5/10/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/10/24 9:28
7.0 Buffer	WC240307F	7.04	5/10/24 9:25
10.0 Buffer	WC230619B	10.00	5/10/24 9:31
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/10/24 9:32

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3	LCS	5/10/24 9:36	14.5	7.05	1,414	1.95		
CCV-3	CCV	5/10/24 10:55	15.2	7.04	1,488			

Comments:

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll/Payton Yoch Date: 5/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/13/24 10:00
7.0 Buffer	WC240307F	7.01	5/13/24 9:57
10.0 Buffer	WC230619B	10.00	5/13/24 10:04
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/13/24 10:09

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4	LCS	5/13/24 10:14	23.7	6.99	1,411			
CCV-4	CCV	5/13/24 14:33	28	6.90	1,435			

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- Ash Ponds- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll/Payton Yoch Date: 5/14/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/14/24 10:22
7.0 Buffer	WC240307F	7.01	5/14/24 10:22
10.0 Buffer	WC230619B	10.00	5/14/24 10:23
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/14/24 10:23

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-5	LCS	5/14/24 10:25	23.7	6.99	1,412			
CCV-5	CCV	5/14/24 13:30	22.9	7.02	1,455			

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- Ash Ponds- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/9/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	3.99	5/9/24 9:29
7.0 Buffer	wc240307f	7.01	5/9/24 9:23
10.0 Buffer	wc231027d	10.00	5/9/24 9:37
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1409	5/9/24 9:41

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.93	5/9/24 9:42
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	5/9/24 9:44	20.5	7.01	1,409	0.93		
CCV-M-1	CCV	5/9/24 12:11	21.7	7.03	1,421	0.96		
CCV-1	CCV	5/9/24 14:35	22.8	7.03	1,424	1.04		

Comments:

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/10/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	4.00	5/10/24 9:32
7.0 Buffer	wc240307f	7.02	5/10/24 9:30
10.0 Buffer	wc231027d	9.98	5/10/24 9:35
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1410	5/10/24 9:40

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.87	5/10/24 9:40
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2	LCS	5/10/24 9:43	18.8	7.02	1,410	0.87		
CCV-2	CCV	5/10/24 10:58	19.7	7.02	1,416	0.89		

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050003
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- Ash Ponds- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	4.01	5/13/24 9:49
7.0 Buffer	wc240307f	7.01	5/13/24 9:43
10.0 Buffer	wc231027d	9.98	5/13/24 9:58
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/13/24 9:58

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.86	5/13/24 9:58
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3	LCS	5/13/24 10:00	21.7	7.01	1,412	0.86		
CCV-3	CCV	5/13/24 14:28	22.1	7.03	1,420	0.92		

Comments:

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/14/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	3.98	5/14/24 9:25
7.0 Buffer	wc240307f	7.00	5/14/24 9:21
10.0 Buffer	wc231027d	9.99	5/14/24 9:28
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1410	5/14/24 9:35

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.96	5/14/24 9:35
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4	LCS	5/14/24 9:37	20.2	7.00	1,410	0.96		
CCV-4	CCV	5/14/24 12:17	21	7.01	1,418	0.99		

Comments:

Summit Environmental Technologies, Inc.
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June 12, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050003

Order No.: 24051620

Dear Shelly Hennessy:

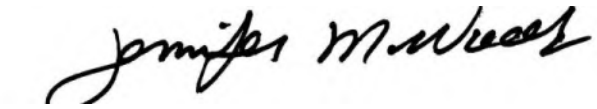
Summit Environmental Technologies, Inc. received 20 sample(s) on 5/17/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,



Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **24051620**
Date: **6/12/2024**

CLIENT: TEKLAB Inc,
Project: 24050003

WorkOrder Narrative:
24051620: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence QC Notes:
LCS/LCSD-75651 Radium-228_NPW(904.0): LCS/LCSD exhibited a high RPD, individually each LCS/LCSD meets required criteria.
LCS/LCSD-75699 Radium-228_DW(904.0): LCS/LCSD exhibited a high RPD, individually each LCS/LCSD meets the required criteria.
LCS/LCSD-75740 Radium-226_DW(903.0): LCS/LCSD exhibit a high RPD, individually each LCS/LCSD meet required criteria.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
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Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24051620**
Date: **6/12/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24051620**
12-Jun-24

CLIENT: TEKLAB Inc,
Project: 24050003

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24051620-001	24050003-001		5/9/2024 12:12:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-002	24050003-002		5/13/2024 11:01:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-003	24050003-003		5/13/2024 11:53:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-004	24050003-004		5/13/2024 12:43:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-005	24050003-005		5/13/2024 1:25:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-006	24050003-006		5/14/2024 9:54:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-007	24050003-007		5/10/2024 10:13:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-008	24050003-008		5/14/2024 11:21:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-009	24050003-009		5/10/2024 10:35:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-010	24050003-010		5/14/2024 11:45:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-011	24050003-011		5/13/2024 2:08:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-012	24050003-012		5/9/2024 11:10:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-013	24050003-013		5/9/2024 1:14:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-014	24050003-014		5/9/2024 1:50:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-015	24050003-015		5/14/2024 10:38:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-016	24050003-016		5/9/2024 2:28:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-017	24050003-017		5/9/2024 11:45:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-018	24050003-018		5/14/2024 12:36:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-019	24050003-019		5/14/2024 11:03:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051620-020	24050003-020		5/14/2024 11:55:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water

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DATES REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,

Project: 24050003

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24051620-001A	24050003-001	5/9/2024 12:12:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-002A	24050003-002	5/13/2024 11:01:00 AM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-003A	24050003-003	5/13/2024 11:53:00 AM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-004A	24050003-004	5/13/2024 12:43:00 PM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-005A	24050003-005	5/13/2024 1:25:00 PM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-006A	24050003-006	5/14/2024 9:54:00 AM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-007A	24050003-007	5/10/2024 10:13:00 AM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-008A	24050003-008	5/14/2024 11:21:00 AM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-009A	24050003-009	5/10/2024 10:35:00 AM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-010A	24050003-010	5/14/2024 11:45:00 AM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-011A	24050003-011	5/13/2024 2:08:00 PM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-012A	24050003-012	5/9/2024 11:10:00 AM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM

Original

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DATES REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,

Project: 24050003

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24051620-012A	24050003-012	5/9/2024 11:10:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-013A	24050003-013	5/9/2024 1:14:00 PM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-014A	24050003-014	5/9/2024 1:50:00 PM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-015A	24050003-015	5/14/2024 10:38:00 AM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-016A	24050003-016	5/9/2024 2:28:00 PM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM
24051620-017A	24050003-017	5/9/2024 11:45:00 AM		Radium-226 (EPA 903.0)		5/29/2024 12:23:00 PM	6/5/2024 10:01:00 AM
				Radium-228 (EPA 904.0)		5/29/2024 12:23:00 PM	6/4/2024 2:54:00 PM
24051620-018A	24050003-018	5/14/2024 12:36:00 PM		Radium-226 (EPA 903.0)		5/29/2024 12:23:00 PM	6/5/2024 10:01:00 AM
				Radium-228 (EPA 904.0)		5/29/2024 12:23:00 PM	6/4/2024 2:54:00 PM
24051620-019A	24050003-019	5/14/2024 11:03:00 AM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051620-020A	24050003-020	5/14/2024 11:55:00 AM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

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Analytical Report

(consolidated)

WO#: **24051620**

Date Reported: **6/12/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/9/2024 12:12:00 PM

Project: 24050003

Lab ID: 24051620-001

Matrix: NON-POTABLE WATER

Client Sample ID: 24050003-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	6/4/2024 9:57:00 AM
Yield	1.00					1	6/4/2024 9:57:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.280	1	6/3/2024 2:37:00 PM
Yield	1.00					1	6/3/2024 2:37:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **24051620**

Date Reported: **6/12/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/13/2024 11:53:00 AM

Project: 24050003

Lab ID: 24051620-003

Matrix: NON-POTABLE WATER

Client Sample ID: 24050003-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	6/4/2024 9:57:00 AM
Yield	1.00					1	6/4/2024 9:57:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.260	1	6/3/2024 2:37:00 PM
Yield	1.00					1	6/3/2024 2:37:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

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Analytical Report

(consolidated)

WO#: **24051620**

Date Reported: **6/12/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/13/2024 12:43:00 PM

Project: 24050003

Lab ID: 24051620-004

Matrix: NON-POTABLE WATER

Client Sample ID: 24050003-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	6/4/2024 9:57:00 AM
Yield	1.00					1	6/4/2024 9:57:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.250	1	6/3/2024 2:37:00 PM
Yield	1.00					1	6/3/2024 2:37:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **24051620**

Date Reported: **6/12/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/14/2024 11:21:00 AM

Project: 24050003

Lab ID: 24051620-008

Matrix: NON-POTABLE WATER

Client Sample ID: 24050003-008

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	6/4/2024 9:57:00 AM
Yield	1.00					1	6/4/2024 9:57:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.290	1	6/3/2024 2:37:00 PM
Yield	0.990					1	6/3/2024 2:37:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24051620**

Date Reported: **6/12/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/10/2024 10:35:00 AM

Project: 24050003

Lab ID: 24051620-009

Matrix: NON-POTABLE WATER

Client Sample ID: 24050003-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.150	1	6/4/2024 9:57:00 AM
Yield	1.00					1	6/4/2024 9:57:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.350	1	6/3/2024 2:37:00 PM
Yield	0.990					1	6/3/2024 2:37:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75651**

Sample ID: **MB-75651**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/28/2024**	RunNo: **186770**
Client ID: **PBW**	Batch ID: **75651**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/3/2024**	SeqNo: **5060869**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCSD-75651**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/28/2024**	RunNo: **186770**
Client ID: **LCSS02**	Batch ID: **75651**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/3/2024**	SeqNo: **5060871**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.50	1.00	5.000	0	90.0	50	130	3.520	24.4	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **24051612-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/28/2024**	RunNo: **186770**
Client ID: **BatchQC**	Batch ID: **75651**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/3/2024**	SeqNo: **5060876**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	0.970			0	0			1.000	3.05		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75651**

Sample ID: **24051613-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/28/2024** RunNo: **186770**
Client ID: **BatchQC** Batch ID: **75651** TestNo: **E904.0** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5060878**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	0.950			0	0			0.9500	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75651**

Sample ID: **24051612-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/28/2024** RunNo: **186773**
Client ID: **BatchQC** Batch ID: **75651** TestNo: **E903.0** **E903-904** Analysis Date: **6/4/2024** SeqNo: **5061011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.960							1.000	4.08	0	

Sample ID: **24051613-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/28/2024** RunNo: **186773**
Client ID: **BatchQC** Batch ID: **75651** TestNo: **E903.0** **E903-904** Analysis Date: **6/4/2024** SeqNo: **5061013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.940							0.9500	1.06	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75651**

Sample ID: **MB-75651**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/28/2024**	RunNo: **186773**
Client ID: **PBW**	Batch ID: **75651**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/4/2024**	SeqNo: **5061004**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	ND										

Sample ID: **LCS-75651**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/28/2024**	RunNo: **186773**
Client ID: **LCSW**	Batch ID: **75651**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/4/2024**	SeqNo: **5061005**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.94	1.00	5.000	0	98.8	70	130				

Sample ID: **LCSD-75651**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/28/2024**	RunNo: **186773**
Client ID: **LCSS02**	Batch ID: **75651**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/4/2024**	SeqNo: **5061006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.48	1.00	5.000	0	89.6	70	130	4.940	9.77	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75699**

Sample ID: **MB-75699**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/29/2024**	RunNo: **186905**
Client ID: **PBW**	Batch ID: **75699**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/4/2024**	SeqNo: **5063570**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-75699**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/29/2024**	RunNo: **186905**
Client ID: **LCSW**	Batch ID: **75699**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/4/2024**	SeqNo: **5063571**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.24	1.00	5.000	0	64.8	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-75699**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/29/2024**	RunNo: **186905**
Client ID: **LCSS02**	Batch ID: **75699**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/4/2024**	SeqNo: **5063572**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.05	1.00	5.000	0	81.0	50	130	3.240	22.2	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75699**

Sample ID: **24051688-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/29/2024** RunNo: **186905**
Client ID: **BatchQC** Batch ID: **75699** TestNo: **E904.0** **E903-904** Analysis Date: **6/4/2024** SeqNo: **5063582**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	0.890			0	0			1.000	11.6		

Sample ID: **24051688-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/29/2024** RunNo: **186905**
Client ID: **BatchQC** Batch ID: **75699** TestNo: **E904.0** **E903-904** Analysis Date: **6/4/2024** SeqNo: **5063584**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			0.9300	7.25		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75699**

Sample ID: **MB-75699**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/29/2024**	RunNo: **186909**
Client ID: **PBW**	Batch ID: **75699**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/5/2024**	SeqNo: **5063797**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75699**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/29/2024**	RunNo: **186909**
Client ID: **LCSW**	Batch ID: **75699**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/5/2024**	SeqNo: **5063798**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.93	1.00	5.000	0	98.6	70	130				

Sample ID: **LCSD-75699**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/29/2024**	RunNo: **186909**
Client ID: **LCSS02**	Batch ID: **75699**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/5/2024**	SeqNo: **5063799**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.16	1.00	5.000	0	103	70	130	4.930	4.56	20	

Sample ID: **24051688-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/29/2024**	RunNo: **186909**
Client ID: **BatchQC**	Batch ID: **75699**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/5/2024**	SeqNo: **5063808**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75699**

Sample ID: **24051688-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/29/2024** RunNo: **186909**
Client ID: **BatchQC** Batch ID: **75699** TestNo: **E903.0** **E903-904** Analysis Date: **6/5/2024** SeqNo: **5063808**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **24051688-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/29/2024** RunNo: **186909**
Client ID: **BatchQC** Batch ID: **75699** TestNo: **E903.0** **E903-904** Analysis Date: **6/5/2024** SeqNo: **5063810**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75740**

Sample ID: **MB-75740**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187287**
Client ID: **PBW**	Batch ID: **75740**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/7/2024**	SeqNo: **5075299**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-75740**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187287**
Client ID: **LCSW**	Batch ID: **75740**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/7/2024**	SeqNo: **5075300**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.94	1.00	5.000	0	78.8	50	130				
Yield	0.890			0	0						

Sample ID: **LCSD-75740**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187287**
Client ID: **LCSS02**	Batch ID: **75740**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/7/2024**	SeqNo: **5075301**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.07	1.00	5.000	0	81.4	50	130	3.940	3.25	20	
Yield	0.860			0	0			0.8900	3.43		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75740**

Sample ID: **24050773-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/30/2024** RunNo: **187287**
Client ID: **BatchQC** Batch ID: **75740** TestNo: **E904.0** **E903-904** Analysis Date: **6/7/2024** SeqNo: **5075306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	0.910			0	0			0.8900	2.22		

Sample ID: **24052198-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/30/2024** RunNo: **187287**
Client ID: **BatchQC** Batch ID: **75740** TestNo: **E904.0** **E903-904** Analysis Date: **6/7/2024** SeqNo: **5075324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	0.930			0	0			0.9600	3.17		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75740**

Sample ID: **MB-75740**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187303**
Client ID: **PBW**	Batch ID: **75740**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/10/2024**	SeqNo: **5075489**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75740**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187303**
Client ID: **LCSW**	Batch ID: **75740**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/10/2024**	SeqNo: **5075490**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.05	1.00	5.000	0	81.0	70	130				QLR

Sample ID: **LCSD-75740**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187303**
Client ID: **LCSS02**	Batch ID: **75740**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/10/2024**	SeqNo: **5075491**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.95	1.00	5.000	0	99.0	70	130	4.050	20.0	20	R

Sample ID: **24050773-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187303**
Client ID: **BatchQC**	Batch ID: **75740**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/10/2024**	SeqNo: **5075496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24051620**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050003 **BatchID:** **75740**

Sample ID: **24050773-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/30/2024** RunNo: **187303**
Client ID: **BatchQC** Batch ID: **75740** TestNo: **E903.0** **E903-904** Analysis Date: **6/10/2024** SeqNo: **5075496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							0.9400	6.19	0	

Sample ID: **24052198-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/30/2024** RunNo: **187303**
Client ID: **BatchQC** Batch ID: **75740** TestNo: **E903.0** **E903-904** Analysis Date: **6/10/2024** SeqNo: **5075514**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	0.960							1.000	4.08	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

24051620

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: 20.0-21.9° Sampler: Client QC Level: 2

20.0 +0.0 = 21.0 +0.0 =
21.9 +0.0 = Fedex, Cooler

Project# 24050003

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36305 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228												
						CPM						pH					
	24050003-001	5/9/2024 12:12	HNO3	Groundwater	✔		20					1					
	24050003-002	5/13/2024 11:01	HNO3	Groundwater	✔		38					1					
	24050003-003	5/13/2024 11:53	HNO3	Groundwater	✔		28					1					
	24050003-004	5/13/2024 12:43	HNO3	Groundwater	✔		30					1					
	24050003-005	5/13/2024 13:25	HNO3	Groundwater	✔		28					1					
	24050003-006	5/14/2024 09:54	HNO3	Groundwater	✔		34					1					
	24050003-007	5/10/2024 10:13	HNO3	Groundwater	✔		24					1					
	24050003-008	5/14/2024 11:21	HNO3	Groundwater	✔		14					1					
	24050003-009	5/10/2024 10:35	HNO3	Groundwater	✔		36					1					
	24050003-010	5/14/2024 11:45	HNO3	Groundwater	✔		20					1					
	24050003-011	5/13/2024 14:08	HNO3	Groundwater	✔		24					1					

*Relinquished By	Date/Time	Received By	Date/Time
[signature]	5/14/24	[signature]	5/17/24, 1215

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Cooler Temp: Sampler: Client QC Level: 2

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Project# 24050003

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36305 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228		CPM				PH					
	24050003-012	5/9/2024 11:10	HNO3	Groundwater	✔		20				1					
	24050003-013	5/9/2024 13:14	HNO3	Groundwater	✔		34				1					
	24050003-014	5/9/2024 13:50	HNO3	Groundwater	✔		32				1					
	24050003-015	5/14/2024 10:38	HNO3	Groundwater	✔		34				1					
	24050003-016	5/9/2024 14:28	HNO3	Groundwater	✔		30				1					
	24050003-017	5/9/2024 11:45	HNO3	Groundwater	✔		30				1					
	24050003-018	5/14/2024 12:36	HNO3	Groundwater	✔		24				1					
	24050003-019	5/14/2024 11:03	HNO3	Groundwater	✔		16				1					
	24050003-020	5/14/2024 11:55	HNO3	Groundwater	✔		18				1					
			HNO3	Groundwater												
			HNO3	Groundwater												

*Relinquished By	Date/Time	Received By	Date/Time
Paul Ehlers	5/14/24		

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Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24051620 RcptNo: 1

Logged by:	Tegan A. Richards	5/17/2024 12:15:00 PM	Tegan Richards
Completed By:	Tegan A. Richards	5/21/2024 1:52:00 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	5/21/2024 2:16:21 PM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	20.0	Good	Not Present			

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24051620 RcptNo: 1

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	21.0	Good	Not Present			
3	21.9	Good	Not Present			

June 18, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 24050002

Dear Eric Staley:

TEKLAB, INC received 11 samples on 5/13/2024 4:10:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 24050002
Report Date: 18-Jun-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	19
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050002

Client Project: FGDS Landfill **Report Date:** 18-Jun-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 24050002
Client Project: FGDS Landfill
Report Date: 18-Jun-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050002
Client Project: FGDS Landfill
Report Date: 18-Jun-24

Cooler Receipt Temp: 13.5 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 24050002
Client Project: FGDS Landfill
Report Date: 18-Jun-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050002
Client Project: FGDS Landfill
Report Date: 18-Jun-24
Lab ID: 24050002-009
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 05/10/2024 10:37

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	05/10/2024 10:37	R347527
Depth to water	*	-5.00		**9.88**	ft	1	05/10/2024 10:37	R347527
Depth to water from measuring point	*	0		**12.63**	ft	1	05/10/2024 10:37	R347527
Elevation of groundwater surface	*	0		**542.97**	ft	1	05/10/2024 10:37	R347527
Measuring Point Elevation	*	0		**555.60**	ft	1	05/10/2024 10:37	R347527
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	05/10/2024 10:37	R347527
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**26**	NTU	1	05/10/2024 10:37	R347527
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.1**	°F	1	05/10/2024 10:37	R347527
SW-846 9040B								
pH, Field	*	1.00		**6.58**		1	05/10/2024 10:37	R347527
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1060**	µmhos/cm @25C	1	05/10/2024 10:37	R347527
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1220**	mg/L	2.5	05/15/2024 11:58	R347402
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**416**	mg/L	10	05/15/2024 1:09	R347268
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**< 0.10**	mg/L	1	05/20/2024 10:53	R347555
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**41**	mg/L	1	05/15/2024 1:04	R347274
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**1.57**	mg/L	1	05/15/2024 13:35	222813
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/15/2024 13:35	222813
Boron	NELAP	0.0200		**9.56**	mg/L	1	05/15/2024 13:35	222813
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/15/2024 13:35	222813
Calcium	NELAP	0.100		**208**	mg/L	1	05/15/2024 13:35	222813
Chromium	NELAP	0.0050		**0.0119**	mg/L	1	05/15/2024 13:35	222813
Cobalt	NELAP	0.0050		**0.0059**	mg/L	1	05/17/2024 17:26	222813
Lead	NELAP	0.0150		**< 0.0150**	mg/L	1	05/15/2024 13:35	222813
Lithium	NELAP	0.0500		**< 0.0500**	mg/L	1	05/20/2024 12:00	222813
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/15/2024 13:35	222813
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/14/2024 16:30	222813
Arsenic	NELAP	0.0010		**0.156**	mg/L	5	05/14/2024 16:30	222813
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/14/2024 16:30	222813
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/15/2024 17:00	222813
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/23/2024 13:07	222958
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/07/2024 0:00	R348779
Radium-228	*	0		**See Attached**	pci/L	1	06/07/2024 0:00	R348779

Receiving Check List

Teklab, Inc. Environmental Laboratory

http://www.teklabinc.com/

Client: City Water, Light & Power

Client Project: FGDS Landfill

Work Order: 24050002

Report Date: 18-Jun-24

Carrier: Daniel Stupar

Received By: WAO

Completed by: Amber Dilallo
On: 08-May-24

Reviewed by: Ellie Hopkins
On: 14-May-24

Pages to follow: Chain of custody 4 Extra pages included 50

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	13.5	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Samples were received on 5/8/24 at 1505 on ice [13.5C - LTG5]. pH strip #96651. - amberdilallo - 5/8/2024 4:32:04 PM

Samples were received on 5/9/2024 at 16:35 on ice [12.1C - LTG#5]. - pschultz - 5/10/2024 9:12:30 AM
pH strip #96651. Additional Nitric Acid (97737) was needed for samples G112 and G113 upon arrival at the laboratory. - pschultz - 5/10/2024 9:12:38 AM

Samples were received on 5/10/2024 at 13:30 on ice [10.7C - LTG#7]. - pschultz - 5/10/2024 2:35:09 PM
pH strip #96651. WO - pschultz - 5/10/2024 2:35:10 PM

Samples were received on 5/13/24 at 1610 on ice [19.3C - LTG7]. pH strip #[96651#]. - amberdilallo - 5/14/2024 8:15:38 AM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 24050002

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 13.5 °C 5

Preserved in: [ ] LAB [x] FIELD

FOR LAB USE ONLY

LAB NOTES: PM ✓ 96651 DSS/8

TEKLAB

Courier

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No

Are these samples known to be hazardous? [ ] Yes [✓] No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:

*elevations, pH, conductivity, temperature

**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo

Quarterly monitoring 4Q2023-3Q2025

RW-3 report data from Ash Pond sampling event.

PROJECT NAME/NUMBER

FGDS Landfill

SAMPLE COLLECTOR'S NAME

Tracy Carrol / Danny Crump

RESULTS REQUESTED

[✓] Standard [ ] 1-2 Day (100% Surcharge)

[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24050002-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G110	5/8/24 1114	Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	R111	5/8/24 1244	Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	G113		Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	G120		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	G121		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	G122		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	RW-3		Groundwater	0	0								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Daniel Crump	5-8-1505	Whitney Owen	5/8/24 1505

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

DSS/8

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 24050002

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 12.1 °C
Preserved in: [ ] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: pH in 96651
Added HNO3 (9773) to G112 + G113 PS 5/10

Client Comments: * per COC for 24050001
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event.

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
TCarroll

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24050002-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G110		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	R111		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	G112	5/9/24 1232	Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	G113	1348	Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	G120	1028	Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	G121	1119	Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	G122	1153	Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	RW-3	5/9 1212*	Groundwater	0	0								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Daniel Crump	5-9 / 1635	Nick Reed	5/9/24 1635

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 24050002

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

LTG-7

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 10.7 °C
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: pH 4 out of 5 5110 30

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event.

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity								
24050002-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
002	G110		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
003	R111		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
004	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
005	G113		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
006	G120		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
007	G121		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
008	G122		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
009	AW-1	5-10-24 / 1037	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
011	RW-3		Groundwater	0	0								✓	✓	✓	✓	✓	✓								

Relinquished By	Date/Time	Received By	Date/Time
J Colp	5-10-24 / 1330	Whitney Clapp	5/10/24 1330

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 24050002

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 19.3 °C LTC7
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: pH/9&151 PS 5/14

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event.

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Culp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24050002-001	R101	5-13-24 / 1220	Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	G110		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	R111		Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	G112		Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	G113		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	G120		Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	G121		Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	G122		Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AW-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AW-2	5-13-24 / 1052	Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	RW-3		Groundwater	0	0								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
Daniel Crump	5-8/ 1505	[illegible]	5/13/24 1610

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Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- FGDS LF- 2Q 2024

			Weather				Well Condition				
WO Sample	**Well ID**	**Program/ Sample Type**	**Temp (°F)**	**Precipitation**	**Wind Direction**	**Sky**	**Well Pad**	**Casing**	**Protective Cover**	**Reference Mark/ ID**	**Well Locked**
001	R101	Groundwater Sample	72.0	None	S	Cloudy	Good	Good	Good	Yes	No
002	G110	Groundwater Sample	75.0	Light	S	Cloudy	Good	Good	Good	Yes	No
003	R111	Groundwater Sample	75.0	Light	S	Cloudy	Good	Good	Good	Yes	No
004	G112	Groundwater Sample	71.0	None	W	Cloudy	Good	Good	Good	Yes	No
005	G113	Groundwater Sample	72.0	None	W	Cloudy	Good	Good	Good	Yes	No
006	G120	Groundwater Sample	68.0	None	W	Cloudy	Good	Good	Good	Yes	No
007	G121	Groundwater Sample	69.0	None	W	Partly cloudy	Good	Good	Good	Yes	No
008	G122	Groundwater Sample	71.0	None	W	Cloudy	Good	Good	Good	Yes	No
009	AW-1	Groundwater Sample	59.0	None	NW	Partly cloudy	Good	Good	Good	Yes	No
010	AW-2	Groundwater Sample	71.0	None	S	Cloudy	Good	Good	Good	Yes	No
011	RW-3	Groundwater Sample	73.0	None	S	Partly cloudy	Good	Good	Good	Yes	No

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- FGDS LF- 2Q 2024

		GW Level Measurement				Purge Activities							
WO Sample	**Well ID**	**Sampler Initials**	**Date/Time**	**DTW (ft)**	**DTB (ft)**	**Sampler Initials**	**Purge Date**	**Purge Start Time**	**Purge End Time**	**Purging/Sampling Device**	**Well Diameter (in)**	**Actual Volume Purged (L)**	**Purge Rate (mL/min)**
001	R101	JC	5/13/24 11:56	5.95	35.27	JC	5/13/2024	11:58	12:20	Submersible Pump	2"	7.0	318.2
002	G110	DC	5/8/24 10:22	23.19	57.15	DC	5/8/2024	10:27	11:14	Peristaltic Pump	2"	6.0	127.7
003	R111	DC	5/8/24 12:04	24.22	55.75	DC	5/8/2024	12:09	12:44	Peristaltic Pump	2"	7.0	200.0
004	G112	JC	5/9/24 12:06	26.99	58.81	JC	5/9/2024	12:19	12:32	Submersible Pump	2"	5.0	384.6
005	G113	JC	5/9/24 13:31	3.85	12.85	JC	5/9/2024	13:34	13:48	Submersible Pump	2"	3.0	214.3
006	G120	JC	5/9/24 9:58	14.79	50.37	JC	5/9/2024	10:00	10:28	Submersible Pump	2"	11.0	392.9
007	G121	JC	5/9/24 11:03	26.76	58.56	JC	5/9/2024	11:03	11:19	Submersible Pump	2"	6.0	375.0
008	G122	JC	5/9/24 11:29	27.67	49.29	JC	5/9/2024	11:39	11:53	Submersible Pump	2"	6.0	**428.6**
009	AW-1	JC	5/10/24 9:39	12.63	54.81	JC	5/10/2024	09:44	10:37	Submersible Pump	2"	17.0	320.8
010	AW-2	JC	5/13/24 10:11	3.29	32.64	JC	5/13/2024	10:12	10:52	Submersible Pump	2"	14.0	350.0
011	RW-3	TAC	5/9/24 11:19	7.87	44.01	TAC	5/9/2024	11:23	12:12	Bladder Pump	2"	9.0	183.7

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- FGDS LF- 2Q 2024

		Sampling Activities and Observations									
WO Sample	**Well ID**	**Sampler Initials**	**Date**	**Time**	**Sampling Method**	**Field Filtered**	**Appearance**	**Odor**	**Color**	**Post-Sample DTW (ft)**	**Drawdown (ft)**
001	R101	JC	05/13/24	12:20	Low Flow	Yes	Clear	None	none	6.23	0.28
002	G110	TAC	05/08/24	11:14	Low Flow	Yes	Clear	None	None	23.38	0.19
003	R111	TAC	05/08/24	12:44	Low Flow	Yes	Clear	None	None	24.33	0.11
004	G112	JC	05/09/24	12:32	Low Flow	Yes	Clear	None	none	27.09	0.10
005	G113	JC	05/09/24	13:48	Low Flow	Yes	Clear	Strong	none	3.97	0.12
006	G120	JC	05/09/24	10:28	Low Flow	Yes	Clear	Slight	none	15.36	**0.57**
007	G121	JC	05/09/24	11:19	Low Flow	Yes	Clear	None	none	27.15	0.39
008	G122	JC	05/09/24	11:53	Low Flow	Yes	Clear	None	none	27.97	0.30
009	AW-1	JC	05/10/24	10:37	Low Flow	Yes	Clear	None	none	12.98	0.35
010	AW-2	JC	05/13/24	10:52	Low Flow	Yes	Slightly cloudy	Slight	lt brown	4.67	**1.38**
011	RW-3	TAC	05/09/24	12:12	Low Flow	Yes	Clear	None	None	14.87	**7.00**

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- FGDS LF- 2Q 2024

WO Sample	Well ID	COMMENTS
001	R101	
002	G110	
003	R111	
004	G112	
005	G113	
006	G120	Flush Mount well
007	G121	
008	G122	
009	AW-1	
010	AW-2	
011	RW-3	

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Stabilized Field Parameters Summary
CWLP- FGDS LF- 2Q 2024

Well ID	Date	Time	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	LIMS ID
R101	5/13/2024	12:20	13.8	56.9	6.92	804.8	2.63	16.14	77.6	5.95	24050001-001A
G110	5/8/2024	11:14	15.5	60.0	6.54	783.4	1.42	4.97	-62.3	23.19	24050001-002A
R111	5/8/2024	12:44	14.5	58.0	6.01	120.4	3.91	2.71	66.5	24.22	24050001-003A
G112	5/9/2024	12:32	14.6	58.3	6.97	1,066.2	0.17	4.06	-136.2	26.99	24050001-004A
G113	5/9/2024	13:48	15.5	59.8	6.27	1,357.4	0.17	5.05	-273.2	3.85	24050001-005A
G120	5/9/2024	10:28	17.5	63.4	6.65	1,294.2	0.11	7.19	-147.1	14.79	24050001-006A
G121	5/9/2024	11:19	15.0	59.0	6.76	1,041.5	0.15	8.16	-144.6	26.76	24050001-007A
G122	5/9/2024	11:53	14.6	58.2	6.64	1,225.7	0.28	2.93	-119.2	27.67	24050001-008A
AW-1	5/10/2024	10:37	14.5	58.1	6.58	1,063.8	0.14	25.85	-122.3	12.63	24050001-009A
AW-2	5/13/2024	10:52	15.0	59.0	6.83	783.6	0.07	8.08	-160.7	3.29	24050001-010A
RW-3	5/9/2024	12:12	15.1	59.1	6.70	644.4	0.82	23.4	-105.9	7.87	24050001-011A

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- GW Quality Parameters
CWLP- FGDS LF- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AW-1	5/10/2024	10:07	12.63	14.2	57.6	6.57	1,059.0	0.18	122.74	-124.4
AW-1	5/10/2024	10:10	12.63	14.3	57.8	6.57	1,057.1	0.20	80.73	-122.6
AW-1	5/10/2024	10:13	12.63	14.5	58.1	6.58	1,057.4	0.21	51.13	-121.0
AW-1	5/10/2024	10:16	12.63	14.3	57.7	6.58	1,058.8	0.21	51.28	-119.8
AW-1	5/10/2024	10:19	12.63	14.4	58.0	6.58	1,059.7	0.20	40.08	-119.8
AW-1	5/10/2024	10:22	12.63	14.4	58.0	6.58	1,061.2	0.18	28.44	-120.3
AW-1	5/10/2024	10:25	12.63	14.5	58.0	6.58	1,061.5	0.17	26.24	-121.0
AW-1	5/10/2024	10:28	12.63	14.4	57.9	6.58	1,062.1	0.16	38.55	-121.3
AW-1	5/10/2024	10:31	12.63	14.4	58.0	6.58	1,063.9	0.15	26.09	-121.7
AW-1	5/10/2024	10:34	12.63	14.5	58.1	6.58	1,063.4	0.14	25.72	-122.1
AW-1	5/10/2024	10:37	12.63	14.5	58.1	6.58	1,063.8	0.14	25.85	-122.3

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- FGDS LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 26599 Technician(s): B. Gillihan Date: 5/9/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/9/24 9:25
7.0 Buffer	WC240307F	7.00	5/9/24 9:37
10.0 Buffer	WC231027D	10.01	5/9/24 9:40
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/9/24 9:42

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.5	5/9/24 9:51
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	5/9/24 18:30	18.96	7.00	1,412	1.5		
CCV-1	CCV	5/9/24 18:29	20.62	7.02	1,413	1.5		

Comments:

Field Meter ID: Pine 26599 Technician(s): B. Gillihan Date: 5/10/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.01	5/10/24 8:54
7.0 Buffer	WC240307F	7.02	5/10/24 16:36
10.0 Buffer	WC231027D	10.00	5/10/24 16:36
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1413	5/10/24 16:38

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.5	5/10/24 16:38
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2	LCS	5/10/24 16:38	18.65	7.01	1,413	1.5		
CCV-2	CCV	5/10/24 16:39	20.64	7.02	1,415	1.4		

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- FGDS LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 26599 Technician(s): B. Gillihan Date: 5/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/13/24 9:29
7.0 Buffer	WC240307F	7.03	5/13/24 9:36
10.0 Buffer	WC231027D	10.01	5/13/24 9:42
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1415	5/13/24 9:51

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.6	5/13/24 9:58
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3	LCS	5/13/24 10:05	19.72	7.02	1,415	1.6		
CCV-3	CCV	5/13/24 11:05	20.01	7.01	1,415	1.5		

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- FGDS LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45986 Technician(s): Daniel Crump/Tracy Carroll Date: 5/8/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/8/24 10:09
7.0 Buffer	WC240307F	7.01	5/8/24 10:07
10.0 Buffer	WC230619B	10.00	5/8/24 10:11
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/8/24 10:14

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	5/8/24 10:16	22.9	7.09	1,413			
CCV-1	CCV	5/8/24 13:21	21	7.02	1,439			

Comments:

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll Date: 5/9/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/9/24 11:02
7.0 Buffer	WC240307F	7.02	5/9/24 11:01
10.0 Buffer	WC230619B	10.00	5/9/24 11:03
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/9/24 11:11

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2	LCS	5/9/24 11:16	24.2	7.06	1,413			
CCV-2	CCV	5/9/24 15:03	25.2	7.08	1,488			

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- FGDS LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll Date: 5/10/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/10/24 9:28
7.0 Buffer	WC240307F	7.04	5/10/24 9:25
10.0 Buffer	WC230619B	10.00	5/10/24 9:31
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/10/24 9:32

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3	LCS	5/10/24 9:36	14.5	7.05	1,414	1.95		
CCV-3	CCV	5/10/24 10:55	15.2	7.04	1,488			

Comments:

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll/Payton Yoch Date: 5/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/13/24 10:00
7.0 Buffer	WC240307F	7.01	5/13/24 9:57
10.0 Buffer	WC230619B	10.00	5/13/24 10:04
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/13/24 10:09

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4	LCS	5/13/24 10:14	23.7	6.99	1,411			
CCV-4	CCV	5/13/24 14:33	28	6.90	1,435			

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- FGDS LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll/Payton Yoch Date: 5/14/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/14/24 10:22
7.0 Buffer	WC240307F	7.01	5/14/24 10:22
10.0 Buffer	WC230619B	10.00	5/14/24 10:23
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/14/24 10:23

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-5	LCS	5/14/24 10:25	23.7	6.99	1,412			
CCV-5	CCV	5/14/24 13:30	22.9	7.02	1,455			

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- FGDS LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/9/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	3.99	5/9/24 9:29
7.0 Buffer	wc240307f	7.01	5/9/24 9:23
10.0 Buffer	wc231027d	10.00	5/9/24 9:37
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1409	5/9/24 9:41

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.93	5/9/24 9:42
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	5/9/24 9:44	20.5	7.01	1,409	0.93		
CCV-M-1	CCV	5/9/24 12:11	21.7	7.03	1,421	0.96		
CCV-1	CCV	5/9/24 14:35	22.8	7.03	1,424	1.04		

Comments:

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/10/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	4.00	5/10/24 9:32
7.0 Buffer	wc240307f	7.02	5/10/24 9:30
10.0 Buffer	wc231027d	9.98	5/10/24 9:35
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1410	5/10/24 9:40

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.87	5/10/24 9:40
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2	LCS	5/10/24 9:43	18.8	7.02	1,410	0.87		
CCV-2	CCV	5/10/24 10:58	19.7	7.02	1,416	0.89		

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050002
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- FGDS LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	4.01	5/13/24 9:49
7.0 Buffer	wc240307f	7.01	5/13/24 9:43
10.0 Buffer	wc231027d	9.98	5/13/24 9:58
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/13/24 9:58

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.86	5/13/24 9:58
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3	LCS	5/13/24 10:00	21.7	7.01	1,412	0.86		
CCV-3	CCV	5/13/24 14:28	22.1	7.03	1,420	0.92		

Comments:

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/14/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	3.98	5/14/24 9:25
7.0 Buffer	wc240307f	7.00	5/14/24 9:21
10.0 Buffer	wc231027d	9.99	5/14/24 9:28
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1410	5/14/24 9:35

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.96	5/14/24 9:35
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4	LCS	5/14/24 9:37	20.2	7.00	1,410	0.96		
CCV-4	CCV	5/14/24 12:17	21	7.01	1,418	0.99		

Comments:

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

June 12, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050002

Dear Shelly Hennessy:

Order No.: 24051621

Summit Environmental Technologies, Inc. received 11 sample(s) on 5/17/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Website: http://www.settek.com

Case Narrative

WO#: **24051621**
Date: **6/12/2024**

CLIENT: TEKLAB Inc,
Project: 24050002

WorkOrder Narrative:
24051621: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence QC Notes:
LCS/LCSD-75740 Radium-226_DW(903.0): LCS/LCSD exhibit a high RPD, individually each LCS/LCSD meet required criteria.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24051621**
Date: **6/12/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **24051621**

12-Jun-24

CLIENT: TEKLAB Inc,
Project: 24050002

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24051621-001	24050002-001		5/13/2024 12:20:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051621-002	24050002-002		5/8/2024 11:14:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051621-003	24050002-003		5/8/2024 12:44:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051621-004	24050002-004		5/9/2024 12:32:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051621-005	24050002-005		5/9/2024 1:48:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water
24051621-006	24050002-006		5/9/2024 10:28:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051621-007	24050002-007		5/9/2024 11:19:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051621-008	24050002-008		5/9/2024 11:53:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051621-009	24050002-009		5/10/2024 10:37:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051621-010	24050002-010		5/13/2024 10:52:00 AM	5/17/2024 12:15:00 PM	Non-Potable Water
24051621-011	24050002-011		5/9/2024 12:12:00 PM	5/17/2024 12:15:00 PM	Non-Potable Water

Summit Environmental Technologies, Inc.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **24051621**

12-Jun-24

Client: TEKLAB Inc,

Project: 24050002

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24051621-001A	24050002-001	5/13/2024 12:20:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051621-002A	24050002-002	5/8/2024 11:14:00 AM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051621-003A	24050002-003	5/8/2024 12:44:00 PM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051621-004A	24050002-004	5/9/2024 12:32:00 PM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051621-005A	24050002-005	5/9/2024 1:48:00 PM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051621-006A	24050002-006	5/9/2024 10:28:00 AM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051621-007A	24050002-007	5/9/2024 11:19:00 AM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051621-008A	24050002-008	5/9/2024 11:53:00 AM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051621-009A	24050002-009	5/10/2024 10:37:00 AM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051621-010A	24050002-010	5/13/2024 10:52:00 AM		Radium-226 (EPA 903.0)		5/30/2024 1:15:00 PM	6/10/2024 12:05:07 PM
				Radium-228 (EPA 904.0)		5/30/2024 1:15:00 PM	6/7/2024 12:56:15 PM
24051621-011A	24050002-011	5/9/2024 12:12:00 PM		Radium-226 (EPA 903.0)		5/28/2024 10:05:00 AM	6/4/2024 9:57:00 AM
				Radium-228 (EPA 904.0)		5/28/2024 10:05:00 AM	6/3/2024 2:37:00 PM

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Analytical Report

(consolidated)

WO#: **24051621**

Date Reported: **6/12/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/10/2024 10:37:00 AM

Project: 24050002

Lab ID: 24051621-009

Matrix: NON-POTABLE WATER

Client Sample ID: 24050002-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	1.25	1.00		pCi/L	± 0.200	1	6/10/2024 12:05:07 PM
Yield	0.960					1	6/10/2024 12:05:07 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	1.00		pCi/L	± 0.460	1	6/7/2024 12:56:15 PM
Yield	0.830					1	6/7/2024 12:56:15 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **24051621**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050002 **BatchID:** **75651**

Sample ID: **MB-75651** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/28/2024** RunNo: **186770**
Client ID: **PBW** Batch ID: **75651** TestNo: **E904.0** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5060869**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCSD-75651** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/28/2024** RunNo: **186770**
Client ID: **LCSS02** Batch ID: **75651** TestNo: **E904.0** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5060871**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.50	1.00	5.000	0	90.0	50	130	3.520	24.4	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **24051612-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/28/2024** RunNo: **186770**
Client ID: **BatchQC** Batch ID: **75651** TestNo: **E904.0** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5060876**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	0.970			0	0			1.000	3.05		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051621**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050002 **BatchID:** **75651**

Sample ID: **24051613-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/28/2024** RunNo: **186770**
Client ID: **BatchQC** Batch ID: **75651** TestNo: **E904.0** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5060878**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	0.950			0	0			0.9500	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051621**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050002 **BatchID:** **75651**

Sample ID: **24051612-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/28/2024** RunNo: **186773**
Client ID: **BatchQC** Batch ID: **75651** TestNo: **E903.0** **E903-904** Analysis Date: **6/4/2024** SeqNo: **5061011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.960							1.000	4.08	0	

Sample ID: **24051613-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/28/2024** RunNo: **186773**
Client ID: **BatchQC** Batch ID: **75651** TestNo: **E903.0** **E903-904** Analysis Date: **6/4/2024** SeqNo: **5061013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.940							0.9500	1.06	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051621**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050002 **BatchID:** **75651**

Sample ID: **MB-75651**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/28/2024**	RunNo: **186773**
Client ID: **PBW**	Batch ID: **75651**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/4/2024**	SeqNo: **5061004**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	ND										

Sample ID: **LCS-75651**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/28/2024**	RunNo: **186773**
Client ID: **LCSW**	Batch ID: **75651**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/4/2024**	SeqNo: **5061005**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.94	1.00	5.000	0	98.8	70	130				

Sample ID: **LCSD-75651**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/28/2024**	RunNo: **186773**
Client ID: **LCSS02**	Batch ID: **75651**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/4/2024**	SeqNo: **5061006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.48	1.00	5.000	0	89.6	70	130	4.940	9.77	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051621**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050002 **BatchID:** **75740**

Sample ID: **MB-75740**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187287**
Client ID: **PBW**	Batch ID: **75740**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/7/2024**	SeqNo: **5075299**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-75740**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187287**
Client ID: **LCSW**	Batch ID: **75740**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/7/2024**	SeqNo: **5075300**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.94	1.00	5.000	0	78.8	50	130				
Yield	0.890			0	0						

Sample ID: **LCSD-75740**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187287**
Client ID: **LCSS02**	Batch ID: **75740**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/7/2024**	SeqNo: **5075301**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.07	1.00	5.000	0	81.4	50	130	3.940	3.25	20	
Yield	0.860			0	0			0.8900	3.43		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051621**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050002 **BatchID:** **75740**

Sample ID: **24050773-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/30/2024** RunNo: **187287**
Client ID: **BatchQC** Batch ID: **75740** TestNo: **E904.0** **E903-904** Analysis Date: **6/7/2024** SeqNo: **5075306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	0.910			0	0			0.8900	2.22		

Sample ID: **24052198-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/30/2024** RunNo: **187287**
Client ID: **BatchQC** Batch ID: **75740** TestNo: **E904.0** **E903-904** Analysis Date: **6/7/2024** SeqNo: **5075324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	0.930			0	0			0.9600	3.17		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051621**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050002 **BatchID:** **75740**

Sample ID: **MB-75740**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187303**
Client ID: **PBW**	Batch ID: **75740**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/10/2024**	SeqNo: **5075489**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75740**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187303**
Client ID: **LCSW**	Batch ID: **75740**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/10/2024**	SeqNo: **5075490**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.05	1.00	5.000	0	81.0	70	130				QLR

Sample ID: **LCSD-75740**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187303**
Client ID: **LCSS02**	Batch ID: **75740**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/10/2024**	SeqNo: **5075491**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.95	1.00	5.000	0	99.0	70	130	4.050	20.0	20	R

Sample ID: **24050773-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/30/2024**	RunNo: **187303**
Client ID: **BatchQC**	Batch ID: **75740**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/10/2024**	SeqNo: **5075496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24051621**

12-Jun-24

Client: TEKLAB Inc,
Project: 24050002 **BatchID:** **75740**

Sample ID: **24050773-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/30/2024** RunNo: **187303**
Client ID: **BatchQC** Batch ID: **75740** TestNo: **E903.0** **E903-904** Analysis Date: **6/10/2024** SeqNo: **5075496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							0.9400	6.19	0	

Sample ID: **24052198-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/30/2024** RunNo: **187303**
Client ID: **BatchQC** Batch ID: **75740** TestNo: **E903.0** **E903-904** Analysis Date: **6/10/2024** SeqNo: **5075514**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	0.960							1.000	4.08	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Pg 1 of 1

24051621

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Cooler Temp: 20.3-21.3 Sampler: Client QC Level: 2

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

20.3+0.0=
21.3+0.0= Fedex, Cooler

Project# 24050002

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36304 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228	Comm				DH						
	24050002-001	5/13/2024 12:20	HNO3	Groundwater	✔	28				1						
	24050002-002	5/8/2024 11:14	HNO3	Groundwater	✔	18				1						
	24050002-003	5/8/2024 12:44	HNO3	Groundwater	✔	32				1						
	24050002-004	5/9/2024 12:32	HNO3	Groundwater	✔	18				1						
	24050002-005	5/9/2024 13:48	HNO3	Groundwater	✔	38				1						
	24050002-006	5/9/2024 10:28	HNO3	Groundwater	✔	28				1						
	24050002-007	5/9/2024 11:19	HNO3	Groundwater	✔	38				1						
	24050002-008	5/9/2024 11:53	HNO3	Groundwater	✔	12				1						
	24050002-009	5/10/2024 10:37	HNO3	Groundwater	✔	22				1						
	24050002-010	5/13/2024 10:52	HNO3	Groundwater	✔	34				1						
	24050002-011	5/9/2024 12:12	HNO3	Groundwater	✔					Did not receive -011						

*Relinquished By	Date/Time	Received By	Date/Time
Randy Reeley	5/14/24	Tonya Rabenda	5/17/24, 1215

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Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24051621 RcptNo: 1

Logged by:	Tegan A. Richards	5/17/2024 12:15:00 PM	Tegan Richards
Completed By:	Tegan A. Richards	5/21/2024 2:09:09 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	5/21/2024 2:33:59 PM	Jennifer Woolf

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☐	No ☑	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date: Signed By:			
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

same as Summit ID 240516201-001 per email
Did not receive -011

Cooler Information

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24051621 RcptNo: 1

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	20.3	Good	Not Present			
2	21.3	Good	Not Present			

June 07, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Landfill Monitoring Wells G1-G2-G3 **WorkOrder:** 24050001

Dear Eric Staley:

TEKLAB, INC received 12 samples on 5/13/2024 4:10:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Client: City Water, Light & Power
Work Order: 24050001
Client Project: Landfill Monitoring Wells G1-G2-G3
Report Date: 07-Jun-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
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Accreditations	6
Laboratory Results	7
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Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050001

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 07-Jun-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power

Work Order: 24050001

Client Project: Landfill Monitoring Wells G1-G2-G3

Report Date: 07-Jun-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050001
Client Project: Landfill Monitoring Wells G1-G2-G3
Report Date: 07-Jun-24

Cooler Receipt Temp: 13.5 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power **Work Order:** 24050001

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 07-Jun-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 24050001

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 07-Jun-24

Lab ID: 24050001-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 05/13/2024 12:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**120**	µg/L	1	05/15/2024 19:00	222911
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/15/2024 19:00	222911
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	05/15/2024 19:00	222911
Magnesium	NELAP	0.050		**65.1**	mg/L	1	05/15/2024 19:00	222911
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/15/2024 19:00	222911
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**190**	µg/L	1	05/15/2024 19:38	222939
Barium	NELAP	2.5		**23.0**	µg/L	1	05/15/2024 19:38	222939
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/15/2024 19:38	222939
Boron	NELAP	20.0		**124**	µg/L	1	05/15/2024 19:38	222939
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/15/2024 19:38	222939
Calcium	NELAP	0.100		**163**	mg/L	1	05/15/2024 19:38	222939
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/15/2024 19:38	222939
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/15/2024 19:38	222939
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/15/2024 19:38	222939
Iron	NELAP	40.0		**225**	µg/L	1	05/15/2024 19:38	222939
Magnesium	NELAP	0.050		**67.2**	mg/L	1	05/15/2024 19:38	222939
Manganese	NELAP	7.0		**1090**	µg/L	1	05/15/2024 19:38	222939
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/15/2024 19:38	222939
Potassium	NELAP	0.100		**0.647**	mg/L	1	05/15/2024 19:38	222939
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/15/2024 19:38	222939
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/15/2024 19:38	222939
Sodium	NELAP	0.050		**28.2**	mg/L	1	05/15/2024 19:38	222939
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/15/2024 19:38	222939
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/15/2024 19:38	222939
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 16:26	222911
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 16:26	222911
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	05/16/2024 19:10	222939
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/16/2024 19:10	222939
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/16/2024 19:10	222939
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/16/2024 19:10	222939
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/21/2024 20:21	223077
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/21/2024 20:19	223077
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	05/15/2024 16:37	222914
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	05/17/2024 15:27	223091
Alachlor	NELAP	0.05		**ND**	µg/L	1	05/17/2024 15:27	223091
Aldrin	NELAP	0.05		**ND**	µg/L	1	05/17/2024 15:27	223091
Dieldrin	NELAP	0.05		**ND**	µg/L	1	05/17/2024 15:27	223091
Endrin	NELAP	0.05		**ND**	µg/L	1	05/17/2024 15:27	223091

Client: City Water, Light & Power **Work Order:** 24050001

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 07-Jun-24

Lab ID: 24050001-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 05/08/2024 11:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**89.0**	µg/L	1	05/14/2024 16:30	222458
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/14/2024 16:30	222458
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	05/14/2024 16:30	222458
Magnesium	NELAP	0.050		**41.2**	mg/L	1	05/14/2024 16:30	222458
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/14/2024 16:30	222458
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**35.0**	µg/L	1	05/13/2024 13:43	222764
Barium	NELAP	2.5		**184**	µg/L	1	05/13/2024 13:43	222764
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/13/2024 13:43	222764
Boron	NELAP	20.0		**94.1**	µg/L	1	05/13/2024 13:43	222764
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/13/2024 13:43	222764
Calcium	NELAP	0.100		**109**	mg/L	1	05/15/2024 19:39	222939
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 13:43	222764
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 13:43	222764
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 13:43	222764
Iron	NELAP	40.0		**5730**	µg/L	1	05/13/2024 13:43	222764
Magnesium	NELAP	0.050		**45.6**	mg/L	1	05/15/2024 19:39	222939
Manganese	NELAP	7.0		**80.5**	µg/L	1	05/15/2024 19:39	222939
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 13:43	222764
Potassium	NELAP	0.100		**1.55**	mg/L	1	05/15/2024 19:39	222939
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/13/2024 13:43	222764
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/13/2024 13:43	222764
Sodium	NELAP	0.050		**13.1**	mg/L	1	05/15/2024 19:39	222939
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/13/2024 13:43	222764
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/13/2024 13:43	222764
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**4.6**	µg/L	5	05/14/2024 22:09	222458
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 23:13	222458
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	05/15/2024 21:39	222764
Arsenic	NELAP	1.0		**5.8**	µg/L	5	05/15/2024 21:39	222764
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 21:39	222764
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2024 21:39	222764
Contamination present in the MBLK. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/21/2024 20:25	223077
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/21/2024 20:23	223077
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	05/15/2024 16:53	222844
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	05/14/2024 12:13	222870
Alachlor	NELAP	0.05		**ND**	µg/L	1	05/14/2024 12:13	222870
Aldrin	NELAP	0.05		**ND**	µg/L	1	05/14/2024 12:13	222870
Dieldrin	NELAP	0.05		**ND**	µg/L	1	05/14/2024 12:13	222870
Endrin	NELAP	0.05		**ND**	µg/L	1	05/14/2024 12:13	222870

Client: City Water, Light & Power **Work Order:** 24050001

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 07-Jun-24

Lab ID: 24050001-004 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 05/09/2024 12:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**343**	µg/L	1	05/14/2024 16:32	222458
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/14/2024 16:32	222458
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	05/14/2024 16:32	222458
Magnesium	NELAP	0.050		**61.9**	mg/L	1	05/14/2024 16:32	222458
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/14/2024 16:32	222458
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**47.0**	µg/L	1	05/13/2024 19:17	222798
Barium	NELAP	2.5		**449**	µg/L	1	05/13/2024 19:17	222798
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/13/2024 19:17	222798
Boron	NELAP	20.0		**330**	µg/L	1	05/13/2024 19:17	222798
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/13/2024 19:17	222798
Calcium	NELAP	0.100		**194**	mg/L	1	05/13/2024 19:17	222798
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:17	222798
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:17	222798
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:17	222798
Iron	NELAP	40.0		**6040**	µg/L	1	05/13/2024 19:17	222798
Magnesium	NELAP	0.050		**68.7**	mg/L	1	05/13/2024 19:17	222798
Manganese	NELAP	7.0		**225**	µg/L	1	05/13/2024 19:17	222798
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:17	222798
Potassium	NELAP	0.100		**2.30**	mg/L	1	05/13/2024 19:17	222798
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/13/2024 19:17	222798
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/13/2024 19:17	222798
Sodium	NELAP	0.050		**32.0**	mg/L	1	05/13/2024 19:17	222798
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/13/2024 19:17	222798
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/13/2024 19:17	222798
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/14/2024 22:19	222458
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 23:23	222458
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/14/2024 22:40	222798
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/14/2024 22:40	222798
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 19:34	222798
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2024 19:34	222798
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2024 13:01	223077
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/21/2024 20:37	223077
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	05/14/2024 19:43	222844
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	05/15/2024 17:48	222988
Alachlor	NELAP	0.05		**ND**	µg/L	1	05/15/2024 17:48	222988
Aldrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 17:48	222988
Dieldrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 17:48	222988
Endrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 17:48	222988
gamma-BHC	NELAP	0.05		**ND**	µg/L	1	05/15/2024 17:48	222988

Client: City Water, Light & Power **Work Order:** 24050001

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 07-Jun-24

Lab ID: 24050001-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 05/09/2024 13:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**1290**	µg/L	1	05/14/2024 16:36	222458
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/14/2024 16:36	222458
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	05/14/2024 16:36	222458
Magnesium	NELAP	0.050		**73.5**	mg/L	1	05/14/2024 16:36	222458
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/14/2024 16:36	222458
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**123**	µg/L	1	05/13/2024 19:18	222798
Barium	NELAP	2.5		**359**	µg/L	1	05/13/2024 19:18	222798
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/13/2024 19:18	222798
Boron	NELAP	20.0		**1480**	µg/L	1	05/13/2024 19:18	222798
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/13/2024 19:18	222798
Calcium	NELAP	0.100		**354**	mg/L	1	05/13/2024 19:18	222798
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:18	222798
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:18	222798
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:18	222798
Iron	NELAP	40.0		**703**	µg/L	1	05/15/2024 11:02	222798
Magnesium	NELAP	0.050		**82.8**	mg/L	1	05/13/2024 19:18	222798
Manganese	NELAP	7.0		**12800**	µg/L	1	05/13/2024 19:18	222798
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:18	222798
Potassium	NELAP	0.100		**3.52**	mg/L	1	05/13/2024 19:18	222798
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/13/2024 19:18	222798
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/13/2024 19:18	222798
Sodium	NELAP	0.050		**21.3**	mg/L	1	05/13/2024 19:18	222798
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/13/2024 19:18	222798
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/13/2024 19:18	222798
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/14/2024 22:24	222458
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 23:27	222458
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/14/2024 23:38	222798
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/14/2024 23:38	222798
Lead	NELAP	1.0		**4.6**	µg/L	5	05/15/2024 19:39	222798
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2024 19:39	222798
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/21/2024 21:22	223077
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/21/2024 21:20	223077
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	05/14/2024 19:58	222844
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:02	222988
Alachlor	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:02	222988
Aldrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:02	222988
Dieldrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:02	222988
Endrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:02	222988
gamma-BHC	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:02	222988

Client: City Water, Light & Power **Work Order:** 24050001

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 07-Jun-24

Lab ID: 24050001-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 05/09/2024 11:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**3220**	µg/L	1	05/14/2024 16:37	222458
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/14/2024 16:37	222458
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	05/14/2024 16:37	222458
Magnesium	NELAP	0.050		**74.5**	mg/L	1	05/14/2024 16:37	222458
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/14/2024 16:37	222458
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**295**	µg/L	1	05/13/2024 19:33	222798
Barium	NELAP	2.5		**606**	µg/L	1	05/13/2024 19:33	222798
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/13/2024 19:33	222798
Boron	NELAP	20.0		**3520**	µg/L	1	05/13/2024 19:33	222798
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/13/2024 19:33	222798
Calcium	NELAP	0.100		**191**	mg/L	1	05/13/2024 19:33	222798
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:33	222798
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:33	222798
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:33	222798
Iron	NELAP	40.0		**21000**	µg/L	1	05/13/2024 19:33	222798
Magnesium	NELAP	0.050		**83.1**	mg/L	1	05/13/2024 19:33	222798
Manganese	NELAP	7.0		**209**	µg/L	1	05/13/2024 19:33	222798
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:33	222798
Potassium	NELAP	0.100		**3.76**	mg/L	1	05/13/2024 19:33	222798
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/13/2024 19:33	222798
Silver	NELAP	7.0		**24.5**	µg/L	1	05/13/2024 19:33	222798
Sodium	NELAP	0.050		**40.9**	mg/L	1	05/13/2024 19:33	222798
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/13/2024 19:33	222798
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/13/2024 19:33	222798
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**13.5**	µg/L	5	05/14/2024 22:35	222458
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 23:37	222458
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/14/2024 23:44	222798
Arsenic	NELAP	1.0		**14.6**	µg/L	5	05/14/2024 23:44	222798
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 20:34	222798
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2024 20:34	222798
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/24/2024 12:18	222922
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/24/2024 12:16	222922
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	05/15/2024 19:09	222844
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:29	222988
Alachlor	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:29	222988
Aldrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:29	222988
Dieldrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:29	222988
Endrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:29	222988
gamma-BHC	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:29	222988

Client: City Water, Light & Power **Work Order:** 24050001

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 07-Jun-24

Lab ID: 24050001-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 05/09/2024 11:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0	S	**11500**	µg/L	1	05/14/2024 16:38	222458
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/14/2024 16:38	222458
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	05/14/2024 16:38	222458
Magnesium	NELAP	0.050	S	**88.5**	mg/L	1	05/14/2024 16:38	222458
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/14/2024 16:38	222458
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**< 25.0**	µg/L	1	05/13/2024 19:34	222798
Barium	NELAP	2.5		**520**	µg/L	1	05/13/2024 19:34	222798
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/13/2024 19:34	222798
Boron	NELAP	20.0		**12800**	µg/L	1	05/13/2024 19:34	222798
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/13/2024 19:34	222798
Calcium	NELAP	0.100		**266**	mg/L	1	05/13/2024 19:34	222798
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:34	222798
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:34	222798
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:34	222798
Iron	NELAP	40.0		**33200**	µg/L	1	05/13/2024 19:34	222798
Magnesium	NELAP	0.050		**101**	mg/L	1	05/13/2024 19:34	222798
Manganese	NELAP	7.0		**1300**	µg/L	1	05/13/2024 19:34	222798
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/13/2024 19:34	222798
Potassium	NELAP	0.100		**2.40**	mg/L	1	05/13/2024 19:34	222798
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/13/2024 19:34	222798
Silver	NELAP	7.0		**14.2**	µg/L	1	05/13/2024 19:34	222798
Sodium	NELAP	0.050		**38.4**	mg/L	1	05/13/2024 19:34	222798
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/13/2024 19:34	222798
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/13/2024 19:34	222798
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**3.0**	µg/L	5	05/15/2024 23:42	222458
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 23:42	222458
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/14/2024 23:49	222798
Arsenic	NELAP	1.0		**3.5**	µg/L	5	05/14/2024 23:49	222798
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 20:39	222798
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2024 20:39	222798
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/24/2024 12:23	222922
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/24/2024 12:20	222922
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	05/15/2024 17:23	222914
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:42	222988
Alachlor	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:42	222988
Aldrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:42	222988
Dieldrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:42	222988
Endrin	NELAP	0.05		**ND**	µg/L	1	05/15/2024 18:42	222988

Client: City Water, Light & Power **Work Order:** 24050001

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 07-Jun-24

Lab ID: 24050001-010 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 05/13/2024 10:52

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**2640**	µg/L	1	05/15/2024 19:01	222911
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/15/2024 19:01	222911
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	05/15/2024 19:01	222911
Magnesium	NELAP	0.050	S	**57.7**	mg/L	1	05/15/2024 19:01	222911
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/15/2024 19:01	222911
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0	S	**921**	µg/L	1	05/21/2024 11:40	222998
Barium	NELAP	2.5		**607**	µg/L	1	05/21/2024 11:40	222998
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/21/2024 11:40	222998
Boron	NELAP	20.0		**2730**	µg/L	1	05/21/2024 11:40	222998
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/21/2024 11:40	222998
Calcium	NELAP	0.100		**141**	mg/L	1	05/22/2024 9:20	222998
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/21/2024 11:40	222998
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/21/2024 11:40	222998
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/21/2024 11:40	222998
Iron	NELAP	40.0	S	**18800**	µg/L	1	05/21/2024 11:40	222998
Magnesium	NELAP	0.050		**58.9**	mg/L	1	05/22/2024 9:20	222998
Manganese	NELAP	7.0		**234**	µg/L	1	05/21/2024 11:40	222998
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/21/2024 11:40	222998
Potassium	NELAP	0.100		**2.35**	mg/L	1	05/22/2024 9:20	222998
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/21/2024 11:40	222998
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/21/2024 11:40	222998
Sodium	NELAP	0.050	S	**42.0**	mg/L	1	05/22/2024 9:20	222998
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/21/2024 11:40	222998
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/21/2024 11:40	222998
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**23.1**	µg/L	5	05/15/2024 15:07	222911
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2024 15:07	222911
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	05/21/2024 13:20	222998
Arsenic	NELAP	1.0		**17.5**	µg/L	5	05/21/2024 13:20	222998
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/21/2024 13:20	222998
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/21/2024 13:20	222998
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2024 15:04	223231
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2024 15:02	223231
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	05/15/2024 18:23	222914
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	05/17/2024 15:41	223091
Alachlor	NELAP	0.05		**ND**	µg/L	1	05/17/2024 15:41	223091
Aldrin	NELAP	0.05		**ND**	µg/L	1	05/17/2024 15:41	223091

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050001
Client Project: Landfill Monitoring Wells G1-G2-G3
Report Date: 07-Jun-24

Carrier: Daniel Stupar
Received By: WAO

Completed by: Amber Dilallo
On: 08-May-24

Reviewed by: Ellie Hopkins
On: 13-May-24

Pages to follow: Chain of custody 6 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	13.5	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Samples were received on 5/8/24 at 1505 on ice [13.5C - LTG5]. Additional Sulfuric Acid (97586) was needed for R111 total container. pH strip #89660/96651.

Preservation checks for O&G analysis are to be completed by the laboratory technician prior to analysis. - amberdilallo - 5/8/2024 4:04:00 PM

Samples were received on 5/9/2024 at 16:35 on ice [12.1C - LTG#5]. pH strip #96651/89660 - pschultz - 5/10/202 9:08:23 AM

Samples were received on 5/10/2024 at 13:30 on ice [10.7C - LTG#3]. pH strip #96651/89660. - pschultz - 5/10/2024 2:31:44 PM

Samples were received on 5/13/2024 at 16:10 on ice [10.1C - LTG#7]. pH strip #96651/89660. - pschultz - 5/13/2024 4:35:48 PM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24050001

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 13.5 °C 5

Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY

LAB NOTES: 2 pumps H2SO4 (97886) added to total R111 PW96651 DS 5/8 OH 10m 5/8/24

Client Comments: 89080

TEKLAB

Courier

Quarter 2 (even number years)
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No

Are these samples known to be hazardous? [ ] Yes [ ] No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2-G3

SAMPLE COLLECTOR'S NAME
T Camil / Daremp

RESULTS REQUESTED

[ ] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other ____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide O&G OOH	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)	VOC Pest-PCB	SVOC-PSIMS	Herbicides	Endothall EDB-DBCP
24050001 001	R101		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
002	G110	5/8/24 1114	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
003	R111	5/8/24 1244	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
004	G112		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
005	G113		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
006	G120		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
007	G121		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
008	G122		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
011	RW-3		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Daniel Cremp	5/8 1505	Whitney Lewis	5/8/24 1505

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

DS 5/8

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24050001

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☐ No
Are these samples known to be hazardous? ☐ Yes ☐ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☐ Yes ☐ No

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
Quarter 2 (even number years)
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2-G3

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED													
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide O&G OOH	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)	VOC Pest-PCB	SVOC-PSIMS	Herbicides	Endothall EDB-DBCP
24050001-012	DUPLICATE		Groundwater	9	2	1	5	3						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
			Groundwater																							
			Groundwater																							
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			Groundwater																							

Relinquished By	Date/Time	Received By	Date/Time
Daniel Crump	5-8 / 1505	Whitney Quinn	5-8-24 1505

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24050001

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Client: City Water, Light & Power
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Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☐ No
Are these samples known to be hazardous? ☐ Yes ☐ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☐ Yes ☐ No

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 12.1 °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: pH/9040/89460 ØHS PS 5/10

Client Comments:
Quarter 2 (even number years)
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2-G3

SAMPLE COLLECTOR'S NAME
T Carroll

RESULTS REQUESTED
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide O&G OOH	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)	VOC Pest-PCB	SVOC-PSIMS	Herbicides	Endothall EDB-DBCP
24050001 001	R101		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
002	G110		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
003	R111		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
004	G112	5/9/24 1232	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
005	G113	1345	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
006	G120	1028	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
007	G121	1119	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
008	G122	1153	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
011	RW-3	5-9-24 1212	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Daniel Cuump	5-9/1635	Trish Reed	5/9/24 1635

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24050001

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☐ No
Are these samples known to be hazardous? ☐ Yes ☐ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☐ Yes ☐ No

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 12.1 °C LTGTHS
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
Quarter 2 (even number years)
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2-G3

SAMPLE COLLECTOR'S NAME
T Carrel

RESULTS REQUESTED
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide O&G OOH	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)	VOC Pest-PCB	SVOC-PSIMS	Herbicides	Endothall EDB-DBCP
24050001-012	DUPLICATE	5/9/24 1212	Groundwater	9	2	1	5	3						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
			Groundwater																							
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			Groundwater																							

Relinquished By	Date/Time	Received By	Date/Time
Daniel Crump	5-9 1635	Nick Reed	5/9/24 1635

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24050001

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

LT63

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 10.7 °C
Preserved in: [X] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: PH 9665/5210 5210 NO HS

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No
Are these samples known to be hazardous? [ ] Yes [ ] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

Client Comments:
Quarter 2 (even number years)
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2-G3

SAMPLE COLLECTOR'S NAME
Justin Culp

RESULTS REQUESTED
[ ] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide O&G OOH	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)	VOC Pest-PCB	SVOC-PSIMS	Herbicides	Endothall EDB-DBCP
24050001 001	R101		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
002	G110		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
003	R111		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
004	G112		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
005	G113		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
006	G120		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
007	G121		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
008	G122		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
009	AW-1	5-10-24 1037	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
011	RW-3		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
S. Culp	5-10-24 1330		5/10/24 1330

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24050001

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
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Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☐ No
Are these samples known to be hazardous? ☐ Yes ☐ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☐ Yes ☐ No

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 10.1 °C LTG 7
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: pH 9665/1896160 LH 5/13 ~~HS present~~ TE PS 5/13 HS OK PS 5/13

Client Comments:
Quarter 2 (even number years)
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2-G3

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide O&G OOH	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)	VOC Pest-PCB	SVOC-PSIMS	Herbicides	Endothall EDB-DBCP
24050001-001	R101	5-13-24 / 1220	Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
002	G110		Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
003	R111		Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
004	G112		Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
005	G113		Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
006	G120		Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
007	G121		Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
008	G122		Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
009	AW-1		Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
010	AW-2	5-13-24 / 1052	Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
011	RW-3		Groundwater	9	2	1	5	3					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
Daniel Colp	5-13-24 / 1610	Whitney Quinn	5/13/24 1610

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Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- LF- 2Q 2024

			Weather				Well Condition				
WO Sample	**Well ID**	**Program/ Sample Type**	**Temp (°F)**	**Precipitation**	**Wind Direction**	**Sky**	**Well Pad**	**Casing**	**Protective Cover**	**Reference Mark/ ID**	**Well Locked**
001	R101	Groundwater Sample	72.0	None	S	Cloudy	Good	Good	Good	Yes	No
002	G110	Groundwater Sample	75.0	Light	S	Cloudy	Good	Good	Good	Yes	No
003	R111	Groundwater Sample	75.0	Light	S	Cloudy	Good	Good	Good	Yes	No
004	G112	Groundwater Sample	71.0	None	W	Cloudy	Good	Good	Good	Yes	No
005	G113	Groundwater Sample	72.0	None	W	Cloudy	Good	Good	Good	Yes	No
006	G120	Groundwater Sample	68.0	None	W	Cloudy	Good	Good	Good	Yes	No
007	G121	Groundwater Sample	69.0	None	W	Partly cloudy	Good	Good	Good	Yes	No
008	G122	Groundwater Sample	71.0	None	W	Cloudy	Good	Good	Good	Yes	No
009	AW-1	Groundwater Sample	59.0	None	NW	Partly cloudy	Good	Good	Good	Yes	No
010	AW-2	Groundwater Sample	71.0	None	S	Cloudy	Good	Good	Good	Yes	No
011	RW-3	Groundwater Sample	73.0	None	S	Partly cloudy	Good	Good	Good	Yes	No
012	Duplicate	QA/QC Sample	73.0	None	S	Partly cloudy	Good	Good	Good	Yes	No

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- LF- 2Q 2024

		GW Level Measurement				Purge Activities							
WO Sample	**Well ID**	**Sampler Initials**	**Date/Time**	**DTW (ft)**	**DTB (ft)**	**Sampler Initials**	**Purge Date**	**Purge Start Time**	**Purge End Time**	**Purging/Sampling Device**	**Well Diameter (in)**	**Actual Volume Purged (L)**	**Purge Rate (mL/min)**
001	R101	JC	5/13/24 11:56	5.95	35.27	JC	5/13/2024	11:58	12:20	Submersible Pump	2"	7.0	318.2
002	G110	DC	5/8/24 10:22	23.19	57.15	DC	5/8/2024	10:27	11:14	Peristaltic Pump	2"	6.0	127.7
003	R111	DC	5/8/24 12:04	24.22	55.75	DC	5/8/2024	12:09	12:44	Peristaltic Pump	2"	7.0	200.0
004	G112	JC	5/9/24 12:06	26.99	58.81	JC	5/9/2024	12:19	12:32	Submersible Pump	2"	5.0	384.6
005	G113	JC	5/9/24 13:31	3.85	12.85	JC	5/9/2024	13:34	13:48	Submersible Pump	2"	3.0	214.3
006	G120	JC	5/9/24 9:58	14.79	50.37	JC	5/9/2024	10:00	10:28	Submersible Pump	2"	11.0	392.9
007	G121	JC	5/9/24 11:03	26.76	58.56	JC	5/9/2024	11:03	11:19	Submersible Pump	2"	6.0	375.0
008	G122	JC	5/9/24 11:29	27.67	49.29	JC	5/9/2024	11:39	11:53	Submersible Pump	2"	6.0	**428.6**
009	AW-1	JC	5/10/24 9:39	12.63	54.81	JC	5/10/2024	09:44	10:37	Submersible Pump	2"	17.0	320.8
010	AW-2	JC	5/13/24 10:11	3.29	32.64	JC	5/13/2024	10:12	10:52	Submersible Pump	2"	14.0	350.0
011	RW-3	TAC	5/9/24 11:19	7.87	44.01	TAC	5/9/2024	11:23	12:12	Bladder Pump	2"	9.0	183.7
012	Duplicate	TAC	5/9/24 11:19	7.87	44.01	TAC	5/9/2024	11:23	12:12	Bladder Pump	2"	9.0	183.7

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- LF- 2Q 2024

WO Sample	Well ID	Sampling Activities and Observations									
		Sampler Initials	Date	Time	Sampling Method	Field Filtered	Appearance	Odor	Color	Post-Sample DTW (ft)	Drawdown (ft)
001	R101	JC	05/13/24	12:20	Low Flow	Yes	Clear	None	none	6.23	0.28
002	G110	TAC	05/08/24	11:14	Low Flow	Yes	Clear	None	None	23.38	0.19
003	R111	TAC	05/08/24	12:44	Low Flow	Yes	Clear	None	None	24.33	0.11
004	G112	JC	05/09/24	12:32	Low Flow	Yes	Clear	None	none	27.09	0.10
005	G113	JC	05/09/24	13:48	Low Flow	Yes	Clear	Strong	none	3.97	0.12
006	G120	JC	05/09/24	10:28	Low Flow	Yes	Clear	Slight	none	15.36	**0.57**
007	G121	JC	05/09/24	11:19	Low Flow	Yes	Clear	None	none	27.15	0.39
008	G122	JC	05/09/24	11:53	Low Flow	Yes	Clear	None	none	27.97	0.30
009	AW-1	JC	05/10/24	10:37	Low Flow	Yes	Clear	None	none	12.98	0.35
010	AW-2	JC	05/13/24	10:52	Low Flow	Yes	Slightly cloudy	Slight	lt brown	4.67	**1.38**
011	RW-3	TAC	05/09/24	12:12	Low Flow	Yes	Clear	None	None	14.87	**7.00**
012	Duplicate	TAC	05/09/24	12:12	Low Flow	Yes	Clear	None	None	14.87	**7.00**

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Summary
CWLP- LF- 2Q 2024

WO Sample	Well ID	COMMENTS
001	R101	
002	G110	
003	R111	
004	G112	
005	G113	
006	G120	Flush Mount well
007	G121	
008	G122	
009	AW-1	
010	AW-2	
011	RW-3	
012	Duplicate	

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Stabilized Field Parameters Summary
CWLP- LF- 2Q 2024

Well ID	Date	Time	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	LIMS ID
R101	5/13/2024	12:20	13.8	56.9	6.92	804.8	2.63	16.14	77.6	5.95	24050001-001A
G110	5/8/2024	11:14	15.5	60.0	6.54	783.4	1.42	4.97	-62.3	23.19	24050001-002A
R111	5/8/2024	12:44	14.5	58.0	6.01	120.4	3.91	2.71	66.5	24.22	24050001-003A
G112	5/9/2024	12:32	14.6	58.3	6.97	1,066.2	0.17	4.06	-136.2	26.99	24050001-004A
G113	5/9/2024	13:48	15.5	59.8	6.27	1,357.4	0.17	5.05	-273.2	3.85	24050001-005A
G120	5/9/2024	10:28	17.5	63.4	6.65	1,294.2	0.11	7.19	-147.1	14.79	24050001-006A
G121	5/9/2024	11:19	15.0	59.0	6.76	1,041.5	0.15	8.16	-144.6	26.76	24050001-007A
G122	5/9/2024	11:53	14.6	58.2	6.64	1,225.7	0.28	2.93	-119.2	27.67	24050001-008A
AW-1	5/10/2024	10:37	14.5	58.1	6.58	1,063.8	0.14	25.85	-122.3	12.63	24050001-009A
AW-2	5/13/2024	10:52	15.0	59.0	6.83	783.6	0.07	8.08	-160.7	3.29	24050001-010A
RW-3	5/9/2024	12:12	15.1	59.1	6.70	644.4	0.82	23.4	-105.9	7.87	24050001-011A
Duplicate	5/9/2024	12:12	15.1	59.1	6.70	644.4	0.82	23.4	-105.9	7.87	24050001-012A

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- Groundwater Quality Parameters
CWLP- LF- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
R101	5/13/2024	12:11	5.95	12.9	55.3	6.89	804.9	2.67	20.15	78.8
R101	5/13/2024	12:14	5.95	13.5	56.3	6.92	804.6	2.65	18.08	78.3
R101	5/13/2024	12:17	5.95	13.4	56.2	6.92	805.4	2.65	16.91	79.0
R101	5/13/2024	12:20	5.95	13.8	56.9	6.92	804.8	2.63	16.14	77.6

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- Groundwater Quality Parameters
CWLP- LF- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G110	5/8/2024	10:50	23.19	15.6	60.0	6.91	779.1	2.22	40.97	-30.7
G110	5/8/2024	10:53	23.19	15.5	59.8	6.86	778.3	2.09	34.58	-33.5
G110	5/8/2024	10:56	23.19	15.4	59.8	6.82	776.5	1.99	41.42	-36.6
G110	5/8/2024	10:59	23.19	15.4	59.8	6.78	776.9	1.93	14.75	-41.4
G110	5/8/2024	11:02	23.19	15.4	59.7	6.75	776.2	1.84	13.25	-45.4
G110	5/8/2024	11:05	23.19	15.4	59.7	6.70	778.3	1.70	31.78	-49.4
G110	5/8/2024	11:08	23.19	15.6	60.0	6.64	778.7	1.56	7.23	-54.2
G110	5/8/2024	11:11	23.19	15.6	60.0	6.58	781.5	1.51	5.37	-58.9
G110	5/8/2024	11:14	23.19	15.5	60.0	6.54	783.4	1.42	4.97	-62.3

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- Groundwater Quality Parameters
CWLP- LF- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G112	5/9/2024	12:23	26.99	14.5	58.0	6.96	1,077.3	0.62	7.45	-126.9
G112	5/9/2024	12:26	26.99	14.5	58.1	6.96	1,076.6	0.31	5.25	-131.2
G112	5/9/2024	12:29	26.99	14.6	58.3	6.97	1,075.7	0.23	4.54	-134.7
G112	5/9/2024	12:32	26.99	14.6	58.3	6.97	1,066.2	0.17	4.06	-136.2

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- Groundwater Quality Parameters
CWLP- LF- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G113	5/9/2024	13:36	3.85	15.0	58.9	6.28	1,363.3	1.10	18.25	-149.6
G113	5/9/2024	13:39	3.85	15.3	59.5	6.29	1,364.3	0.45	16.44	-208.0
G113	5/9/2024	13:42	3.85	15.3	59.5	6.29	1,356.4	0.27	12.41	-248.5
G113	5/9/2024	13:45	3.85	15.6	60.0	6.28	1,354.6	0.23	7.26	-259.5
G113	5/9/2024	13:48	3.85	15.5	59.8	6.27	1,357.4	0.17	5.05	-273.2

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- Groundwater Quality Parameters
CWLP- LF- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G121	5/9/2024	11:07	26.76	14.9	58.9	6.79	952.5	0.35	32.06	-91.7
G121	5/9/2024	11:10	26.76	14.8	58.7	6.78	1,009.7	0.23	19.47	-129.7
G121	5/9/2024	11:13	26.76	15.0	58.9	6.76	1,037.3	0.18	15.54	-139.8
G121	5/9/2024	11:16	26.76	15.1	59.1	6.76	1,040.6	0.16	10.83	-143.1
G121	5/9/2024	11:19	26.76	15.0	59.0	6.76	1,041.5	0.15	8.16	-144.6

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- Groundwater Quality Parameters
CWLP- LF- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
G122	5/9/2024	11:44	27.67	14.6	58.2	6.66	1,183.5	0.62	10.83	-101.8
G122	5/9/2024	11:47	27.67	14.1	57.4	6.66	1,190.2	0.38	6.05	-114.3
G122	5/9/2024	11:50	27.67	14.5	58.2	6.64	1,213.2	0.30	4.39	-117.9
G122	5/9/2024	11:53	27.67	14.6	58.2	6.64	1,225.7	0.28	2.93	-119.2

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- Groundwater Quality Parameters
CWLP- LF- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AW-2	5/13/2024	10:25	3.29	15.0	59.0	6.83	679.4	0.22	49.10	-101.0
AW-2	5/13/2024	10:28	3.29	15.1	59.2	6.78	759.9	0.18	42.57	-136.3
AW-2	5/13/2024	10:31	3.29	15.2	59.4	6.83	778.0	0.15	24.94	-152.7
AW-2	5/13/2024	10:34	3.29	15.1	59.2	6.83	779.2	0.13	22.03	-156.3
AW-2	5/13/2024	10:37	3.29	15.2	59.4	6.83	781.1	0.12	27.98	-157.7
AW-2	5/13/2024	10:40	3.29	15.1	59.3	6.83	781.7	0.10	19.55	-158.7
AW-2	5/13/2024	10:43	3.29	15.0	59.1	6.83	782.5	0.09	15.90	-159.2
AW-2	5/13/2024	10:46	3.29	15.0	59.0	6.83	783.4	0.08	11.59	-160.0
AW-2	5/13/2024	10:49	3.29	15.0	59.0	6.83	784.4	0.07	10.85	-160.5
AW-2	5/13/2024	10:52	3.29	15.0	59.0	6.83	783.6	0.07	8.08	-160.7

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP-LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 26599 Technician(s): B. Gillihan Date: 5/9/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/9/24 9:25
7.0 Buffer	WC240307F	7.00	5/9/24 9:37
10.0 Buffer	WC231027D	10.01	5/9/24 9:40
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/9/24 9:42

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.5	5/9/24 9:51
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	5/9/24 18:30	18.96	7.00	1,412	1.5		
CCV-1	CCV	5/9/24 18:29	20.62	7.02	1,413	1.5		

Comments:

Field Meter ID: Pine 26599 Technician(s): B. Gillihan Date: 5/10/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.01	5/10/24 8:54
7.0 Buffer	WC240307F	7.02	5/10/24 16:36
10.0 Buffer	WC231027D	10.00	5/10/24 16:36
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1413	5/10/24 16:38

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.5	5/10/24 16:38
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2	LCS	5/10/24 16:38	18.65	7.01	1,413	1.5		
CCV-2	CCV	5/10/24 16:39	20.64	7.02	1,415	1.4		

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP-LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 26599 Technician(s): B. Gillihan Date: 5/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/13/24 9:29
7.0 Buffer	WC240307F	7.03	5/13/24 9:36
10.0 Buffer	WC231027D	10.01	5/13/24 9:42
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1415	5/13/24 9:51

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.6	5/13/24 9:58
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3	LCS	5/13/24 10:05	19.72	7.02	1,415	1.6		
CCV-3	CCV	5/13/24 11:05	20.01	7.01	1,415	1.5		

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP-LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45986 Technician(s): Daniel Crump/Tracy Carroll Date: 5/8/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/8/24 10:09
7.0 Buffer	WC240307F	7.01	5/8/24 10:07
10.0 Buffer	WC230619B	10.00	5/8/24 10:11
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/8/24 10:14

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	5/8/24 10:16	22.9	7.09	1,413			
CCV-1	CCV	5/8/24 13:21	21	7.02	1,439			

Comments:

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll Date: 5/9/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/9/24 11:02
7.0 Buffer	WC240307F	7.02	5/9/24 11:01
10.0 Buffer	WC230619B	10.00	5/9/24 11:03
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/9/24 11:11

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2	LCS	5/9/24 11:16	24.2	7.06	1,413			
CCV-2	CCV	5/9/24 15:03	25.2	7.08	1,488			

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP-LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll Date: 5/10/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/10/24 9:28
7.0 Buffer	WC240307F	7.04	5/10/24 9:25
10.0 Buffer	WC230619B	10.00	5/10/24 9:31
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/10/24 9:32

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3	LCS	5/10/24 9:36	14.5	7.05	1,414	1.95		
CCV-3	CCV	5/10/24 10:55	15.2	7.04	1,488			

Comments:

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll/Payton Yoch Date: 5/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/13/24 10:00
7.0 Buffer	WC240307F	7.01	5/13/24 9:57
10.0 Buffer	WC230619B	10.00	5/13/24 10:04
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/13/24 10:09

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4	LCS	5/13/24 10:14	23.7	6.99	1,411			
CCV-4	CCV	5/13/24 14:33	28	6.90	1,435			

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP-LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45986 Technician(s): Tracy Carroll/Payton Yoch Date: 5/14/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230830B	4.00	5/14/24 10:22
7.0 Buffer	WC240307F	7.01	5/14/24 10:22
10.0 Buffer	WC230619B	10.00	5/14/24 10:23
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/14/24 10:23

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-5	LCS	5/14/24 10:25	23.7	6.99	1,412			
CCV-5	CCV	5/14/24 13:30	22.9	7.02	1,455			

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP-LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/9/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	3.99	5/9/24 9:29
7.0 Buffer	wc240307f	7.01	5/9/24 9:23
10.0 Buffer	wc231027d	10.00	5/9/24 9:37
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1409	5/9/24 9:41

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.93	5/9/24 9:42
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	5/9/24 9:44	20.5	7.01	1,409	0.93		
CCV-M-1	CCV	5/9/24 12:11	21.7	7.03	1,421	0.96		
CCV-1	CCV	5/9/24 14:35	22.8	7.03	1,424	1.04		

Comments:

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/10/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	4.00	5/10/24 9:32
7.0 Buffer	wc240307f	7.02	5/10/24 9:30
10.0 Buffer	wc231027d	9.98	5/10/24 9:35
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1410	5/10/24 9:40

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.87	5/10/24 9:40
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2	LCS	5/10/24 9:43	18.8	7.02	1,410	0.87		
CCV-2	CCV	5/10/24 10:58	19.7	7.02	1,416	0.89		

Comments:

Site Samping Event: CWLP- 2Q24
LIMS Workorder: 24050001
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP-LF- 2Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	4.01	5/13/24 9:49
7.0 Buffer	wc240307f	7.01	5/13/24 9:43
10.0 Buffer	wc231027d	9.98	5/13/24 9:58
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1412	5/13/24 9:58

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.86	5/13/24 9:58
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3	LCS	5/13/24 10:00	21.7	7.01	1,412	0.86		
CCV-3	CCV	5/13/24 14:28	22.1	7.03	1,420	0.92		

Comments:

Field Meter ID: Pine 218083 Technician(s): justin colp Date: 5/14/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230830b	3.98	5/14/24 9:25
7.0 Buffer	wc240307f	7.00	5/14/24 9:21
10.0 Buffer	wc231027d	9.99	5/14/24 9:28
LCS/CCV (7.0 Buffer)			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	95009	1410	5/14/24 9:35

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.96	5/14/24 9:35
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4	LCS	5/14/24 9:37	20.2	7.00	1,410	0.96		
CCV-4	CCV	5/14/24 12:17	21	7.01	1,418	0.99		

Comments:

Third Quarter 2024

September 18, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 24080242

Dear Eric Staley:

TEKLAB, INC received 20 samples on 8/13/2024 2:27:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24080242
Report Date: 18-Sep-24

This reporting package includes the following:

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Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	36
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24080242

Client Project: Ash Pond Monitoring Wells **Report Date:** 18-Sep-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24080242
Client Project: Ash Pond Monitoring Wells
Report Date: 18-Sep-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24080242
Report Date: 18-Sep-24

Cooler Receipt Temp: 12.1 °C

An employee of Teklab, Inc. collected the sample(s).

AP-3 well is damaged, will be collected at a later date.

Radium-226 & -228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24080242

Client Project: Ash Pond Monitoring Wells

Report Date: 18-Sep-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 24080242

Client Project: Ash Pond Monitoring Wells **Report Date:** 18-Sep-24

Lab ID: 24080242-001 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 08/12/2024 10:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	08/12/2024 10:18	R352005
Depth to water	*	-5.00		**8.61**	ft	1	08/12/2024 10:18	R352005
Depth to water from measuring point	*	0		**11.31**	ft	1	08/12/2024 10:18	R352005
Elevation of groundwater surface	*	0		**528.19**	ft	1	08/12/2024 10:18	R352005
Measuring Point Elevation	*	0		**539.50**	ft	1	08/12/2024 10:18	R352005
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	08/12/2024 10:18	R352005
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**39**	NTU	1	08/12/2024 10:18	R352005
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.3**	°F	1	08/12/2024 10:18	R352005
SW-846 9040B								
pH, Field	*	1.00		**7.23**		1	08/12/2024 10:18	R352005
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**698**	umhos/cm @25C	1	08/12/2024 10:18	R352005
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**344**	mg/L	1	08/16/2024 9:41	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10	S	**14**	mg/L	1	08/20/2024 11:28	R352032
Matrix spike did not recover within control limits. Results verify by dilution.								
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.43**	mg/L	1	08/19/2024 9:31	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**29**	mg/L	1	08/20/2024 11:27	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.146**	mg/L	1	08/14/2024 17:13	227065
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2024 17:13	227065
Boron	NELAP	0.0200		**0.122**	mg/L	1	08/14/2024 17:13	227065
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2024 17:13	227065
Calcium	NELAP	0.100		**63.2**	mg/L	1	08/14/2024 17:13	227065
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:13	227065
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:13	227065
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2024 17:13	227065
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2024 17:13	227065
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 9:54	227065
Arsenic	NELAP	0.0010		**0.107**	mg/L	5	08/14/2024 22:56	227065
Lithium	*	0.0030		**0.0038**	mg/L	5	08/14/2024 22:56	227065
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2024 22:56	227065
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/14/2024 22:56	227065
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2024 12:31	227054
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/10/2024 0:00	R353360

Client: City Water, Light & Power
Work Order: 24080242
Client Project: Ash Pond Monitoring Wells
Report Date: 18-Sep-24
Lab ID: 24080242-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 08/12/2024 10:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		**See Attached**	pci/L	1	09/10/2024 0:00	R353360

Client: City Water, Light & Power **Work Order:** 24080242

Client Project: Ash Pond Monitoring Wells **Report Date:** 18-Sep-24

Lab ID: 24080242-003 **Client Sample ID:** AP-2

Matrix: GROUNDWATER **Collection Date:** 08/12/2024 13:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	08/12/2024 13:04	R352005
Depth to water	*	-5.00		**5.99**	ft	1	08/12/2024 13:04	R352005
Depth to water from measuring point	*	0		**8.49**	ft	1	08/12/2024 13:04	R352005
Elevation of groundwater surface	*	0		**527.61**	ft	1	08/12/2024 13:04	R352005
Measuring Point Elevation	*	0		**536.10**	ft	1	08/12/2024 13:04	R352005
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	08/12/2024 13:04	R352005
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**32**	NTU	1	08/12/2024 13:04	R352005
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.3**	°F	1	08/12/2024 13:04	R352005
SW-846 9040B								
pH, Field	*	1.00		**6.58**		1	08/12/2024 13:04	R352005
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1510**	umhos/cm @25C	1	08/12/2024 13:04	R352005
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1110**	mg/L	1	08/16/2024 9:44	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**417**	mg/L	20	08/20/2024 12:18	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.25**	mg/L	1	08/19/2024 9:35	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**39**	mg/L	1	08/20/2024 12:13	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0751**	mg/L	1	08/14/2024 17:16	227065
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2024 17:16	227065
Boron	NELAP	0.0200		**3.10**	mg/L	1	08/14/2024 17:16	227065
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2024 17:16	227065
Calcium	NELAP	0.100		**206**	mg/L	1	08/14/2024 17:16	227065
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:16	227065
Cobalt	NELAP	0.0050		**0.0073**	mg/L	1	08/14/2024 17:16	227065
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2024 17:16	227065
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2024 17:16	227065
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 10:05	227065
Arsenic	NELAP	0.0010		**0.0031**	mg/L	5	08/14/2024 23:06	227065
Lithium	*	0.0030		**0.0081**	mg/L	5	08/14/2024 23:06	227065
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2024 23:06	227065
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/14/2024 23:06	227065
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2024 12:36	227054
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/10/2024 0:00	R353360
Radium-228	*	0		**See Attached**	pci/L	1	09/10/2024 0:00	R353360

Client: City Water, Light & Power **Work Order:** 24080242

Client Project: Ash Pond Monitoring Wells **Report Date:** 18-Sep-24

Lab ID: 24080242-008 **Client Sample ID:** AP-7

Matrix: GROUNDWATER **Collection Date:** 08/12/2024 13:52

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	08/12/2024 13:52	R352005
Depth to water	*	-5.00		**9.36**	ft	1	08/12/2024 13:52	R352005
Depth to water from measuring point	*	0		**12.02**	ft	1	08/12/2024 13:52	R352005
Elevation of groundwater surface	*	0		**527.00**	ft	1	08/12/2024 13:52	R352005
Measuring Point Elevation	*	0		**539.02**	ft	1	08/12/2024 13:52	R352005
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	08/12/2024 13:52	R352005
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**19**	NTU	1	08/12/2024 13:52	R352005
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.0**	°F	1	08/12/2024 13:52	R352005
SW-846 9040B								
pH, Field	*	1.00		**7.20**		1	08/12/2024 13:52	R352005
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**733**	umhos/cm @25C	1	08/12/2024 13:52	R352005
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**386**	mg/L	1	08/16/2024 9:57	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**14**	mg/L	1	08/20/2024 13:17	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.46**	mg/L	1	08/19/2024 9:47	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**50**	mg/L	1	08/20/2024 13:17	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.108**	mg/L	1	08/14/2024 17:26	227065
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2024 17:26	227065
Boron	NELAP	0.0200		**0.244**	mg/L	1	08/14/2024 17:26	227065
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2024 17:26	227065
Calcium	NELAP	0.100		**59.5**	mg/L	1	08/14/2024 17:26	227065
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:26	227065
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:26	227065
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2024 17:26	227065
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2024 17:26	227065
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0016**	mg/L	5	08/15/2024 11:01	227065
Arsenic	NELAP	0.0010		**0.0438**	mg/L	5	08/14/2024 23:59	227065
Lithium	*	0.0030		**0.0063**	mg/L	5	08/15/2024 11:01	227065
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2024 23:59	227065
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/14/2024 23:59	227065
CCV recovered outside the upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2024 12:45	227054
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/16/2024 0:00	R353360

Client: City Water, Light & Power
Work Order: 24080242
Client Project: Ash Pond Monitoring Wells
Report Date: 18-Sep-24
Lab ID: 24080242-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 08/12/2024 13:52

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		**See Attached**	pci/L	1	09/16/2024 0:00	R353360

Client: City Water, Light & Power **Work Order:** 24080242

Client Project: Ash Pond Monitoring Wells **Report Date:** 18-Sep-24

Lab ID: 24080242-009 **Client Sample ID:** AP-8

Matrix: GROUNDWATER **Collection Date:** 08/13/2024 11:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	08/13/2024 11:06	R352005
Depth to water	*	-5.00		**4.07**	ft	1	08/13/2024 11:06	R352005
Depth to water from measuring point	*	0		**6.97**	ft	1	08/13/2024 11:06	R352005
Elevation of groundwater surface	*	0		**530.23**	ft	1	08/13/2024 11:06	R352005
Measuring Point Elevation	*	0		**537.20**	ft	1	08/13/2024 11:06	R352005
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	08/13/2024 11:06	R352005
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**34**	NTU	1	08/13/2024 11:06	R352005
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.7**	°F	1	08/13/2024 11:06	R352005
SW-846 9040B								
pH, Field	*	1.00		**7.03**		1	08/13/2024 11:06	R352005
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1000**	umhos/cm @25C	1	08/13/2024 11:06	R352005
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**526**	mg/L	1	08/16/2024 9:57	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**11**	mg/L	1	08/20/2024 13:25	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.33**	mg/L	1	08/19/2024 9:49	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**35**	mg/L	1	08/20/2024 13:25	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.407**	mg/L	1	08/15/2024 15:55	227124
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/15/2024 15:55	227124
Boron	NELAP	0.0200		**0.0855**	mg/L	1	08/15/2024 15:55	227124
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/15/2024 15:55	227124
Calcium	NELAP	0.100		**89.5**	mg/L	1	08/15/2024 15:55	227124
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 15:55	227124
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 15:55	227124
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/15/2024 15:55	227124
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/15/2024 15:55	227124
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 14:01	227124
Arsenic	NELAP	0.0010		**0.0414**	mg/L	5	08/15/2024 14:01	227124
Lithium	*	0.0030		**0.0075**	mg/L	5	08/15/2024 14:01	227124
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 14:01	227124
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 14:01	227124
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/15/2024 16:13	227118
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/16/2024 0:00	R353360
Radium-228	*	0		**See Attached**	pci/L	1	09/16/2024 0:00	R353360

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24080242
Report Date: 18-Sep-24

Carrier: Justin Colp

Received By: PRS

Completed by: Amber Dilallo
On: 13-Aug-24

Reviewed by: Shelly A. Hennessy
On: 27-Aug-24

Pages to follow: Chain of custody 4 Extra pages included 60

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	12.1
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐		
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐			

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Samples were received on 8/12/24 at 1635 on ice [12.1C - LTG#9]. pH strip #96651. - amberdilallo - 8/13/2024 8:19:55 AM

Samples were received on 8/13/24 at 1427 on ice [3.7C - LTG#5]. pH strip #96651. - amberdilallo - 8/13/2024 3:24:03 PM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24080242

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 12.1 °C LAG-9
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: pH/9040/1
PS8113

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring
*Damaged - to be collected @ later date SAH 8/14/24

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24080242-001	RW-3	8.12.24 1018	Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1	8.12.24 1119	Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2	8.12.24 1304	Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3 *		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4	8.12.24 1235	Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5	8.12.24 1159	Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6	8.12.24 1050	Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7	8.12.24 1352	Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9	8.12.24 1421	Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	8.12.24 1635	Paul Gaty	8/12/24 1635

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24080242

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Joshn Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED													
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity									
24080245 01	AP-11	8-12-24 1207	Groundwater	1	2								✓	✓	✓	✓	✓	✓									
013	AP-12	1302	Groundwater	1	2								✓	✓	✓	✓	✓	✓									
014	AP-13	1328	Groundwater	1	2								✓	✓	✓	✓	✓	✓									
015	AP-14		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
016	T-1	1418	Groundwater	1	2								✓	✓	✓	✓	✓	✓									
017	T-2	1232	Groundwater	1	2								✓	✓	✓	✓	✓	✓									
018	T-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
019	T-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
020	T-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
			Groundwater																								
			Groundwater																								

Relinquished By	Date/Time	Received By	Date/Time
J Colp	8.12.24 1635	Paul Getty	8/12/24 1635

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24080242

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 3.7 °C
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: pH/alkal PS 8/13

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24080242-001	RW-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8	8.13.24 1106	Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10	8-13-24 1043	Groundwater	1	2								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	8-13-24 1427		8/13/24 1427

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24080242

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE ____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24080245	AP-11		Groundwater	1	2								✔	✔	✔	✔	✔	✔
013	AP-12		Groundwater	1	2								✔	✔	✔	✔	✔	✔
014	AP-13		Groundwater	1	2								✔	✔	✔	✔	✔	✔
015	AP-14	8-13-24 1119	Groundwater	1	2								✔	✔	✔	✔	✔	✔
016	T-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
017	T-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
018	T-4	8.13.24 1220	Groundwater	1	2								✔	✔	✔	✔	✔	✔
019	T-5	8.13.24 1132	Groundwater	1	2								✔	✔	✔	✔	✔	✔
020	T-6	8.13.24 1044	Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	8-13-24 1427		8/13/24 1427

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Field Data Sheet

Project Name: CWLP- Ash Pond Monitoring Wells **Monitoring Point:** RW-3

Project Location: Springfield, IL

W.O. Number (s): 24080242 **Date (s):** 8/12/2024

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 74 °F Wind Direction: (N) S E W (circle two if needed)

Precipitation: (None) Light Heavy Sky: (Cloudy) Sunny Partly

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing		X
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Good				

Groundwater Level Measurements

Static Water Level: 11.31 feet below TOC

Date/Time Measured: 8/12/2024 10:01 Total Depth: 44.01 feet below TOC

Water Column: 32.70 feet

Purging Activities

Purged By: Justin Colp Purge Date: 8/12/2024

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 32.7 ft. x 44.01 = 0.97 L x 3 Vol. = 2.91 L **Based on 3 water volumes in 3/8" tubing.*

Actual Purge Volume (L): 3.1

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:03	0.0	200	purge start time						
10:06	0.6	↓	7.20	764	60.2	2.13	-61.3	7.69	
10:09	1.3		7.22	745	60.0	1.17	-110.3	14.43	
10:12	1.9		7.23	707	59.0	0.99	-122.2	27.14	
10:15	2.5		7.22	699	59.8	0.96	-124.7	35.75	
10:18	3.1		7.23	698	60.3	0.95	-125.9	38.75	

Sampling Activities

Sampled By: Justin Colp Sample Date/Time: 8/12/2024 10:18

Sample Method: Low-Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.23 pH 698 Spec. Cond. 60.3 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 11.46 feet below TOC Drawdown: 0.15 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Justin Colp **Date:** 8/12/2024

Field Data Sheet

Project Name: CWLP- Ash Pond Monitoring Wells
Monitoring Point: AP-2
Project Location: Springfield, IL
W.O. Number (s): 24080242
Date (s): 8/12/2024

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 77 °F — Wind Direction: (N) S E W (circle two if needed)
Precipitation: (None) Light Heavy — Sky: (Cloudy) Sunny Partly

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Good

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/12/2024 12:50
Static Water Level: 8.49 feet below TOC
Total Depth: 21.33 feet below TOC
Water Column: 12.84 feet

Purging Activities

Purged By: Justin Colp — Purge Date: 8/12/2024
Purge Method: Bladder Pump — Well Diameter: 2"
Purge Volume Calculation (L): 12.84 ft. x 21.33 = 0.47 L x 3 Vol. = 1.41 L **Based on 3 water volumes in 3/8" tubing.*
Actual Purge Volume (L): 2.5
Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:51	0.0	188	purge start time						
12:55	0.8	↓	6.58	1,506	62.2	1.42	18.8	59.88	
12:58	1.4		6.58	1,509	62.4	1.19	19.5	42.69	
13:01	1.9		6.58	1,509	62.4	1.15	20.0	35.14	
13:04	2.5		6.58	1,510	62.3	1.08	20.0	31.61	

Sampling Activities

Sampled By: Justin Colp — Sample Date/Time: 8/12/2024 13:04
Sample Method: Low-Flow — Sample Equipment: Bladder Pump
Sample Parameters: 6.58 pH — 1,510 Spec. Cond. — 62.3 Temp
Field Filtered: No — Filter Type:
Water Level: 8.73 feet below TOC — Drawdown: 0.24 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Justin Colp — **Date:** 8/12/2024

Field Data Sheet

Project Name: CWLP- Ash Pond Monitoring Wells **Monitoring Point:** AP-3
Project Location: Springfield, IL
W.O. Number (s): 24080242 **Date (s):** 8/12/2024

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: °F Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Damaged			
Casing	Damaged	Protective Casing		
Protective Casing	Damaged	Well		
Reference Mark/Identification	Damaged			

Groundwater Level Measurements

Static Water Level: feet below TOC
Date/Time Measured: Total Depth: feet below TOC
Water Column: feet

Purging Activities

Purged By: Purge Date:
Purge Method: Well Diameter: 2"
Purge Volume Calculation (L):
Actual Purge Volume (L):
Physical appearance of purge water: Odor: Color:

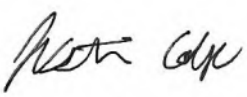
Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
			purge start time						

Sampling Activities

Sampled By: Sample Date/Time:
Sample Method: Sample Equipment:
Sample Parameters: pH Spec. Cond. Temp
Field Filtered: Filter Type:
Water Level: feet below TOC Drawdown: feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Well damaged by vehicle, notified by onsite personell of planned repair/redrill



Form Completed By: **Date:** 8/12/2024

Field Data Sheet

Project Name: CWLP- Ash Pond Monitoring Wells
Monitoring Point: AP-7
Project Location: Springfield, IL
W.O. Number (s): 24080242
Date (s): 8/12/2024

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 77 °F — Wind Direction: (N) S E W (circle two if needed)
Precipitation: (None) Light Heavy — Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/12/2024 13:36
Static Water Level: 12.02 feet below TOC
Total Depth: 42.52 feet below TOC
Water Column: 30.50 feet

Purging Activities

Purged By: Justin Colp — Purge Date: 8/12/2024
Purge Method: Bladder Pump — Well Diameter: 2"
Purge Volume Calculation (L): 30.5 ft. x 42.52 = 0.94 L x 3 Vol. = 2.82 L **Based on 3 water volumes in 3/8" tubing.*
Actual Purge Volume (L): 3.0
Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:37	0.0	200	purge start time						
13:40	0.6	↓	7.29	742	59.3	1.59	-37.2	16.71	
13:43	1.2		7.25	750	58.4	1.11	-89.9	37.06	
13:46	1.8		7.23	738	58.2	0.98	-95.0	35.04	
13:49	2.4		7.21	732	58.1	0.92	-95.6	27.20	
13:52	3.0		7.20	733	58.0	0.88	-95.5	19.12	

Sampling Activities

Sampled By: Justin Colp — Sample Date/Time: 8/12/2024 13:52
Sample Method: Low-Flow — Sample Equipment: Bladder Pump
Sample Parameters: 7.20 pH — 733 Spec. Cond. — 58.0 Temp
Field Filtered: No — Filter Type:
Water Level: 12.23 feet below TOC — Drawdown: 0.21 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Justin Colp — **Date:** 8/12/2024

Field Data Sheet

Project Name: CWLP- Ash Pond Monitoring Wells
Monitoring Point: AP-8
Project Location: Springfield, IL
W.O. Number (s): 24080242
Date (s): 8/13/2024

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 73 °F — Wind Direction: N S E (W) (circle two if needed)
Precipitation: (None) Light Heavy — Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/13/2024 10:51
Static Water Level: 6.97 feet below TOC
Total Depth: 39.60 feet below TOC
Water Column: 32.63 feet

Purging Activities

Purged By: Justin Colp — Purge Date: 8/13/2024
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 32.63 ft. x 39.6 = 0.87 L x 3 Vol. = 2.61 L **Based on 3 water volumes in 3/8" tubing.*
Actual Purge Volume (L): 3.2
Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:52	0.0	214	purge start time						
10:54	0.6	↓	7.07	1,008	60.8	1.60	-83.4	18.46	
10:57	1.3		7.06	1,005	60.7	1.06	-97.5	19.65	
11:00	1.9		7.05	1,003	59.0	0.86	-104.6	32.94	
11:03	2.6		7.04	1,002	58.9	0.79	-107.9	30.61	
11:06	3.2		7.03	1,003	60.7	0.76	-109.9	33.73	

Sampling Activities

Sampled By: Justin Colp — Sample Date/Time: 8/13/2024 11:06
Sample Method: Low-Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 7.03 pH — 1,003 Spec. Cond. — 60.7 Temp
Field Filtered: No — Filter Type:
Water Level: 8.19 feet below TOC — Drawdown: 1.22 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Justin Colp — **Date:** 8/13/2024

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 24080242
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 3Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45985 Technician(s): Brett Gillihan Date: 8/12/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC240612A	4.01	8/12/24 9:59
7.0 Buffer	WC240307F	6.99	8/12/24 9:54
10.0 Buffer	WC240625B	9.99	8/12/24 10:02
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1410	8/12/24 10:09

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.4	8/12/24 10:15
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	8/12/24 10:19	22.4	7.01	1,410			
CCV-1-BG	CCV	8/12/24 15:30	23.6	7.04	1,416			

Comments:

Field Meter ID: Pine 45985 Technician(s): Brett Gillihan Date: 8/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC240612A	4.02	8/13/24 8:58
7.0 Buffer	WC240307F	7.00	8/13/24 8:54
10.0 Buffer	WC240625B	10.01	8/13/24 9:01
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1412	8/13/24 9:05

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.9	8/13/24 9:15
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	8/13/24 9:20	23.5	7.01	1,411			
CCV-2-BG	CCV	8/13/24 12:19	24.5	7.02	1,420			

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 24080242
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 3Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223344 Technician(s): Tracy Carroll Date: 8/12/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC240612A	4.01	8/12/24 10:31
7.0 Buffer	WC240307F	7.01	8/12/24 10:23
10.0 Buffer	WC240625B	10.00	8/12/24 10:39
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1412	8/12/24 10:39

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-TC	LCS	8/12/24 10:44	24.6	7.03	1,410			
CCV-1-TC	CCV	8/12/24 14:28	25.2	7.08	1,453			

Comments:

Field Meter ID: Pine 223344 Technician(s): Tracy Carroll Date: 8/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC240612A	4.00	8/13/24 9:38
7.0 Buffer	WC240307F	7.01	8/13/24 9:35
10.0 Buffer	WC240625B	10.00	8/13/24 9:41
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1412	8/13/24 9:37

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-TC	LCS	8/13/24 9:42	21	7.02	1,413			
CCV-2-TC	CCV	8/13/24 14:18	22.5	7.06	1,422			

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 24080242
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 3Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 218074 Technician(s): justin colp Date: 8/12/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc240612a	4.00	8/12/24 9:33
7.0 Buffer	wc240307f	6.99	8/12/24 9:30
10.0 Buffer	wc240625b	9.99	8/12/24 9:36
LCS/CCV (7.0 Buffer)	wc231207a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1413	8/12/24 9:39

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.41	8/12/24 9:42
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	8/12/24 9:45	23.2	6.99	1,413	0.41		
CCV-1-JC	CCV	8/12/24 14:44	24.49	7.01	1,427	0.47		

Comments:

Field Meter ID: Pine 218074 Technician(s): justin colp Date: 8/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc240612a	3.99	8/13/24 8:55
7.0 Buffer	wc240307f	7.00	8/13/24 8:57
10.0 Buffer	wc240625b	10.00	8/13/24 8:59
LCS/CCV (7.0 Buffer)	wc231207a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1410	8/13/24 9:04

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.43	8/13/24 9:07
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	8/13/24 9:10	23.1	7.00	1,410	0.43		
CCV-2-JC	CCV	8/13/24 11:36	24.8	7.02	1,416	0.47		

Comments:

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

September 18, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24080242

Dear Shelly Hennessy:

Order No.: 24081370

Summit Environmental Technologies, Inc. received 19 sample(s) on 8/19/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **24081370**
Date: **9/18/2024**

CLIENT: TEKLAB Inc,
Project: 24080242

WorkOrder Narrative:
24081370: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44&
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24081370**
Date: **9/18/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24081370**

18-Sep-24

CLIENT: TEKLAB Inc,
Project: 24080242

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24081370-001	24080242-001		8/12/2024 10:18:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-002	24080242-002		8/12/2024 11:19:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-003	24080242-003		8/12/2024 1:04:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-004	24080242-005		8/12/2024 12:35:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-005	24080242-006		8/12/2024 11:59:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-006	24080242-007		8/12/2024 10:50:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-007	24080242-008		8/12/2024 1:52:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-008	24080242-009		8/13/2024 11:06:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-009	24080242-010		8/12/2024 2:21:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-010	24080242-011		8/13/2024 10:43:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-011	24080242-012		8/12/2024 12:07:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-012	24080242-013		8/12/2024 1:02:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-013	24080242-014		8/12/2024 1:28:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-014	24080242-015		8/13/2024 11:19:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-015	24080242-016		8/12/2024 2:18:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-016	24080242-017		8/12/2024 12:32:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-017	24080242-018		8/13/2024 12:20:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-018	24080242-019		8/13/2024 11:32:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081370-019	24080242-020		8/13/2024 10:44:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water

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DATES REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,

Project: 24080242

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24081370-001A	24080242-001	8/12/2024 10:18:00 AM	Non-Potable Water	Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/5/2024 10:37:44 AM	9/11/2024 1:22:47 PM
				Radium-228 (EPA 904.0)		9/5/2024 10:37:44 AM	9/10/2024 1:54:42 PM
24081370-002A	24080242-002	8/12/2024 11:19:00 AM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/5/2024 10:37:44 AM	9/11/2024 1:22:47 PM
				Radium-228 (EPA 904.0)		9/5/2024 10:37:44 AM	9/10/2024 1:54:42 PM
24081370-003A	24080242-003	8/12/2024 1:04:00 PM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/5/2024 10:37:44 AM	9/11/2024 1:22:47 PM
				Radium-228 (EPA 904.0)		9/5/2024 10:37:44 AM	9/10/2024 1:54:42 PM
24081370-004A	24080242-005	8/12/2024 12:35:00 PM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-005A	24080242-006	8/12/2024 11:59:00 AM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-006A	24080242-007	8/12/2024 10:50:00 AM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-007A	24080242-008	8/12/2024 1:52:00 PM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-008A	24080242-009	8/13/2024 11:06:00 AM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM

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DATES REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,

Project: 24080242

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24081370-008A	24080242-009	8/13/2024 11:06:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-009A	24080242-010	8/12/2024 2:21:00 PM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-010A	24080242-011	8/13/2024 10:43:00 AM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-011A	24080242-012	8/12/2024 12:07:00 PM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-012A	24080242-013	8/12/2024 1:02:00 PM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-013A	24080242-014	8/12/2024 1:28:00 PM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-014A	24080242-015	8/13/2024 11:19:00 AM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-015A	24080242-016	8/12/2024 2:18:00 PM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-016A	24080242-017	8/12/2024 12:32:00 PM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM

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DATES REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,

Project: 24080242

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24081370-016A	24080242-017	8/12/2024 12:32:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-017A	24080242-018	8/13/2024 12:20:00 PM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-018A	24080242-019	8/13/2024 11:32:00 AM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM
24081370-019A	24080242-020	8/13/2024 10:44:00 AM		Combined Radium (EPA903+904)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-226 (EPA 903.0)		9/9/2024 11:10:00 AM	9/17/2024 10:44:46 PM
				Radium-228 (EPA 904.0)		9/9/2024 11:10:00 AM	9/16/2024 2:26:20 PM

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC. Analytical Laboratories

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24081370**

Date Reported: **9/18/2024**

CLIENT: TEKLAB Inc,

Collection Date: 8/12/2024 10:18:00 AM

Project: 24080242

Lab ID: 24081370-001

Matrix: NON-POTABLE WATER

Client Sample ID: 24080242-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**		Analyst: **HDJ**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.380	1	9/17/2024 12:00:15 PM
RAD226/228					**E903.0**	**E903-904**	Analyst: **SMZ**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0700	1	9/11/2024 1:22:47 PM
Yield	1.00					1	9/11/2024 1:22:47 PM
RAD226/228					**E904.0**	**E903-904**	Analyst: **SMZ**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.310	1	9/10/2024 1:54:42 PM
Yield	1.00					1	9/10/2024 1:54:42 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

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Analytical Report

(consolidated)

WO#: **24081370**

Date Reported: **9/18/2024**

CLIENT: TEKLAB Inc,

Collection Date: 8/12/2024 1:04:00 PM

Project: 24080242

Lab ID: 24081370-003

Matrix: NON-POTABLE WATER

Client Sample ID: 24080242-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**		Analyst: **HDJ**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.320	1	9/17/2024 12:00:15 PM
RAD226/228					**E903.0**	**E903-904**	Analyst: **SMZ**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0700	1	9/11/2024 1:22:47 PM
Yield	1.00					1	9/11/2024 1:22:47 PM
RAD226/228					**E904.0**	**E903-904**	Analyst: **SMZ**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.250	1	9/10/2024 1:54:42 PM
Yield	1.00					1	9/10/2024 1:54:42 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **24081370**

Date Reported: **9/18/2024**

CLIENT: TEKLAB Inc,

Collection Date: 8/12/2024 10:50:00 AM

Project: 24080242

Lab ID: 24081370-006

Matrix: NON-POTABLE WATER

Client Sample ID: 24080242-007

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **SMZ**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	4.00		pCi/L	± 0.840	1	9/17/2024 10:44:46 PM
RAD226/228					**E903.0**	**E903-904**	Analyst: **SMZ**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	2.00		pCi/L	± 0.0500	1	9/17/2024 10:44:46 PM
Yield	1.00					1	9/17/2024 10:44:46 PM
RAD226/228					**E904.0**	**E903-904**	Analyst: **SMZ**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	2.00		pCi/L	± 0.790	1	9/16/2024 2:26:20 PM
Yield	1.00					1	9/16/2024 2:26:20 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **24081370**

Date Reported: **9/18/2024**

CLIENT: TEKLAB Inc,

Collection Date: 8/12/2024 1:52:00 PM

Project: 24080242

Lab ID: 24081370-007

Matrix: NON-POTABLE WATER

Client Sample ID: 24080242-008

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **SMZ**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	4.00		pCi/L	± 0.890	1	9/17/2024 10:44:46 PM
RAD226/228					**E903.0**	**E903-904**	Analyst: **SMZ**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	2.00		pCi/L	± 0.120	1	9/17/2024 10:44:46 PM
Yield	1.00					1	9/17/2024 10:44:46 PM
RAD226/228					**E904.0**	**E903-904**	Analyst: **SMZ**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	2.00		pCi/L	± 0.770	1	9/16/2024 2:26:20 PM
Yield	1.00					1	9/16/2024 2:26:20 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,
Project: 24080242 **BatchID:** **78364**

Sample ID: **MB-78364**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/5/2024**	RunNo: **192975**
Client ID: **PBW**	Batch ID: **78364**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/10/2024**	SeqNo: **5224910**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-78364**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/5/2024**	RunNo: **192975**
Client ID: **LCSW**	Batch ID: **78364**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/10/2024**	SeqNo: **5224911**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.73	1.00	5.000	0	74.6	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-78364**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/5/2024**	RunNo: **192975**
Client ID: **LCSS02**	Batch ID: **78364**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/10/2024**	SeqNo: **5224912**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.48	1.00	5.000	0	69.6	50	130	3.730	6.93	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,

Project: 24080242 **BatchID:** **78364**

Sample ID: **24081279-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/5/2024** RunNo: **192975**

Client ID: **BatchQC** Batch ID: **78364** TestNo: **E904.0** **E903-904** Analysis Date: **9/10/2024** SeqNo: **5224919**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,
Project: 24080242 **BatchID:** **78364**

Sample ID: **MB-78364**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/5/2024**	RunNo: **192981**
Client ID: **PBW**	Batch ID: **78364**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/11/2024**	SeqNo: **5224968**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-78364**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/5/2024**	RunNo: **192981**
Client ID: **LCSW**	Batch ID: **78364**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/11/2024**	SeqNo: **5224969**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.96	1.00	5.000	0	99.2	70	130				

Sample ID: **LCSD-78364**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/5/2024**	RunNo: **192981**
Client ID: **LCSS02**	Batch ID: **78364**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/11/2024**	SeqNo: **5224970**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.78	1.00	5.000	0	95.6	70	130	4.960	3.70	20	

Sample ID: **24081277-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/5/2024**	RunNo: **192981**
Client ID: **BatchQC**	Batch ID: **78364**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/11/2024**	SeqNo: **5224975**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,

Project: 24080242 **BatchID:** **78364**

Sample ID: **24081277-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/5/2024** RunNo: **192981**

Client ID: **BatchQC** Batch ID: **78364** TestNo: **E903.0** **E903-904** Analysis Date: **9/11/2024** SeqNo: **5224975**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,
Project: 24080242 **BatchID:** **78453**

Sample ID: **MB-78453**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/9/2024**	RunNo: **193345**
Client ID: **PBW**	Batch ID: **78453**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/16/2024**	SeqNo: **5233515**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-78453**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/9/2024**	RunNo: **193345**
Client ID: **LCSW**	Batch ID: **78453**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/16/2024**	SeqNo: **5233516**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.33	1.00	5.000	0	66.6	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-78453**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/9/2024**	RunNo: **193345**
Client ID: **LCSS02**	Batch ID: **78453**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/16/2024**	SeqNo: **5233517**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.07	1.00	5.000	0	61.4	50	130	3.330	8.13	20	
Yield	0.960			0	0			1.000	4.08		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,
Project: 24080242 **BatchID:** **78453**

Sample ID: **24081834-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/9/2024** RunNo: **193345**
Client ID: **BatchQC** Batch ID: **78453** TestNo: **E904.0** **E903-904** Analysis Date: **9/16/2024** SeqNo: **5233540**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.09	1.00		0	0			0.7400	38.3	20	R
Yield	0.980			0	0			1.000	2.02		

Sample ID: **24081834-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/9/2024** RunNo: **193345**
Client ID: **BatchQC** Batch ID: **78453** TestNo: **E904.0** **E903-904** Analysis Date: **9/16/2024** SeqNo: **5233542**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,
Project: 24080242 **BatchID:** **78453**

Sample ID: **MB-78453**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/9/2024**	RunNo: **193353**
Client ID: **PBW**	Batch ID: **78453**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/17/2024**	SeqNo: **5233739**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-78453**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/9/2024**	RunNo: **193353**
Client ID: **LCSW**	Batch ID: **78453**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/17/2024**	SeqNo: **5233740**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.33	1.00	5.000	0	86.6	70	130				QLR

Sample ID: **LCSD-78453**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/9/2024**	RunNo: **193353**
Client ID: **LCSS02**	Batch ID: **78453**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/17/2024**	SeqNo: **5233741**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.36	1.00	5.000	0	107	70	130	4.330	21.3	20	R

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24081370**

18-Sep-24

Client: TEKLAB Inc,
Project: 24080242 **BatchID:** **78453**

Sample ID: **24081834-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/9/2024** RunNo: **193353**
Client ID: **BatchQC** Batch ID: **78453** TestNo: **E903.0** **E903-904** Analysis Date: **9/17/2024** SeqNo: **5233764**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **24081834-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/9/2024** RunNo: **193353**
Client ID: **BatchQC** Batch ID: **78453** TestNo: **E903.0** **E903-904** Analysis Date: **9/17/2024** SeqNo: **5233766**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

24081370

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Cooler Temp: Sampler: Teklab, Inc. QC Level: 2

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Comments: **Please Issue reports and invoices via email only**
Please analyze for Ra226, Ra228 and Combinded Radium per your usual methods.
Changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Project# 24080242

Contact: Shelly Hennessy Email: shennessy@teklabinc.com
Requested Due Date: Standard TAT Billing/PO: 36831 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228	Radium 226	Radium 228										
	24080242-001	8/12/24 1018	HNO3	Groundwater	✓	✓	✓	pH	1	Cpm=57							
	24080242-002	8/12/24 1119	HNO3	Groundwater	✓	✓	✓		1		10						
	24080242-003	8/12/24 1304	HNO3	Groundwater	✓	✓	✓		1		30						
	24080242-005	8/12/24 1235	HNO3	Groundwater	✓	✓	✓		1		18						
	24080242-006	8/12/24 1159	HNO3	Groundwater	✓	✓	✓		1		41						
	24080242-007	8/12/24 1050	HNO3	Groundwater	✓	✓	✓		1		37						
	24080242-008	8/12/24 1352	HNO3	Groundwater	✓	✓	✓		1		11						
	24080242-009	8/13/24 1106	HNO3	Groundwater	✓	✓	✓		1		41						
	24080242-010	8/12/24 1421	HNO3	Groundwater	✓	✓	✓		1		33						
	24080242-011	8/13/24 1043	HNO3	Groundwater	✓	✓	✓		1		17						
	24080242-012	8/12/24 1207	HNO3	Groundwater	✓	✓	✓	✓	1		33						

21.6 - 0.1 = 21.5, Federal Code

*Relinquished By	Date/Time	Received By	Date/Time
Mon. Wells	8/14/24 1700	AUG 19 2024	12 30

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Teklab, Inc. | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Ra226, Ra228 and Combinded Radium per your usual methods.
Changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Project# 24080242

Contact: Shelly Hennessy | Email: shennessy@teklabinc.com
Requested Due Date: Standard TAT | Billing/PO: 36831 | Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228	Radium 226	Radium 228										
	24080242-013	8/12/24 1302	HNO3	Groundwater	✓	✓	✓	pH	1		Com=33						
	24080242-014	8/12/24 1328	HNO3	Groundwater	✓	✓	✓		1		45						
	24080242-015	8/13/24 1119	HNO3	Groundwater	✓	✓	✓		1		33						
	24080242-016	8/12/24 1418	HNO3	Groundwater	✓	✓	✓		1		17						
	24080242-017	8/12/24 1232	HNO3	Groundwater	✓	✓	✓		1		34						
	24080242-018	8/13/24 1220	HNO3	Groundwater	✓	✓	✓		1		56						
	24080242-019	8/13/24 1132	HNO3	Groundwater	✓	✓	✓		1		52						
	24080242-020	8/13/24 1044	HNO3	Groundwater	✓	✓	✓	✓	1		24						
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													

21.6 - 0.1 = 21.5, Feder Coder

*Relinquished By	Date/Time	Received By	Date/Time
[signature]	8/14/24 1700	[signature] AUG 19 2024	1230

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization and proprietary rights.
Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24081370 RcptNo: 1

Logged by:	Anthony W. Britton	8/19/2024 12:30:00 PM	Anthony Britton
Completed By:	Christina N. Gemma	8/20/2024 9:28:43 AM	C. Gemma
Reviewed By:	Jennifer Woolf	8/20/2024 1:59:11 PM	Jennifer Woolf

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date: Signed By:			
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	21.5	Good	Not Present			

September 24, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 24082414

Dear Eric Staley:

TEKLAB, INC received 1 sample on 8/29/2024 11:54:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24082414
Report Date: 24-Sep-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	8
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24082414

Client Project: Ash Pond Monitoring Wells **Report Date:** 24-Sep-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24082414
Client Project: Ash Pond Monitoring Wells
Report Date: 24-Sep-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24082414
Report Date: 24-Sep-24

Cooler Receipt Temp: 16.9 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Client Project: Ash Pond Monitoring Wells

Work Order: 24082414

Report Date: 24-Sep-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24082414
Client Project: Ash Pond Monitoring Wells
Report Date: 24-Sep-24
Lab ID: 24082414-001
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 08/29/2024 10:01

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.63**	ft	1	08/29/2024 10:01	R352520
Depth to water	*	-5.00		**7.40**	ft	1	08/29/2024 10:01	R352520
Depth to water from measuring point	*	0		**9.95**	ft	1	08/29/2024 10:01	R352520
Elevation of groundwater surface	*	0		**525.30**	ft	1	08/29/2024 10:01	R352520
Measuring Point Elevation	*	0		**535.25**	ft	1	08/29/2024 10:01	R352520
Measuring Point Height Above Land Surface	*	0		**2.55**	ft	1	08/29/2024 10:01	R352520
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	08/29/2024 10:01	R352520
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.1**	°F	1	08/29/2024 10:01	R352520
SW-846 9040B								
pH, Field	*	1.00		**6.20**		1	08/29/2024 10:01	R352520
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1210**	umhos/cm @25C	1	08/29/2024 10:01	R352520
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1170**	mg/L	1	08/30/2024 9:24	R352631
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	*	0.50		**ND**	mg/L	10	08/29/2024 18:42	R352440
Chloride	*	5.00		**55.9**	mg/L	10	08/29/2024 18:42	R352440
Sulfate	*	10.0		**554**	mg/L	10	08/29/2024 18:42	R352440
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.102**	mg/L	1	09/03/2024 16:40	227844
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	09/03/2024 16:40	227844
Boron	NELAP	0.0200		**14.6**	mg/L	1	09/03/2024 16:40	227844
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	09/03/2024 16:40	227844
Calcium	NELAP	0.100		**175**	mg/L	1	09/03/2024 16:40	227844
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	09/03/2024 16:40	227844
Cobalt	NELAP	0.0050		**0.0071**	mg/L	1	09/05/2024 15:52	227844
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	09/03/2024 16:40	227844
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	09/03/2024 16:40	227844
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	09/04/2024 2:12	227844
Arsenic	NELAP	0.0010		**0.0080**	mg/L	5	09/04/2024 2:12	227844
Lithium	*	0.0030		**0.0064**	mg/L	5	09/04/2024 2:12	227844
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	09/04/2024 2:12	227844
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/04/2024 2:12	227844
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/30/2024 14:05	227834
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/20/2024 0:00	R353640
Radium-228	*	0		**See Attached**	pci/L	1	09/20/2024 0:00	R353640

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24082414
Report Date: 24-Sep-24

Carrier: Tracy Carroll

Received By: PRS

Completed by: Amber Dilallo
On: 29-Aug-24

Reviewed by: Ellie Hopkins
On: 29-Aug-24

Pages to follow: Chain of custody 1 Extra pages included 12

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	16.9	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #96651. - amberdilallo - 8/29/2024 1:06:16 PM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24082414

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 16.9 °C
Preserved in: ☐ LAB ☒ FIELD
FOR LAB USE ONLY
LAB NOTES: 96651 na 8/29

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Tracy Carroll

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity								
	RW-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
	AP-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
	AP-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
24082414-001	AP-3	8/29/24 1001	Groundwater	1	2								✔	✔	✔	✔	✔	✔								
	AP-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
	AP-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
	AP-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
	AP-7		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
	AP-8		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
	AP-9		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
	AP-10		Groundwater	1	2								✔	✔	✔	✔	✔	✔								

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carroll	8/29/24 1154		8/29/24 1154

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

September 24, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24082414

Order No.: 24090112

Dear Shelly Hennessy:

Summit Environmental Technologies, Inc. received 1 sample(s) on 9/3/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **24090112**
Date: **9/24/2024**

CLIENT: TEKLAB Inc,
Project: 24082414

WorkOrder Narrative:
24090112: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence QC Notes:
LCS/LCSD-78638 Radium-228_DW(904.0): LCS/LCSD exhibited a high RPD, individually each LCS/LCSD meets the required criteria.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24090112**
Date: **9/24/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **24090112**
24-Sep-24

CLIENT: TEKLAB Inc,
Project: 24082414

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24090112-001	24082414-001		8/29/2024 10:01:00 AM	9/3/2024 5:00:00 PM	Non-Potable Water

Summit Environmental Technologies, Inc.
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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **24090112**

24-Sep-24

Client: TEKLAB Inc,

Project: 24082414

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24090112-001A	24082414-001	8/29/2024 10:01:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		9/17/2024 1:43:08 PM	9/23/2024 10:10:02 AM
				Radium-228 (EPA 904.0)		9/17/2024 1:43:08 PM	9/20/2024 2:09:34 PM

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24090112**

Date Reported: **9/24/2024**

CLIENT: TEKLAB Inc,

Collection Date: 8/29/2024 10:01:00 AM

Project: 24082414

Lab ID: 24090112-001

Matrix: NON-POTABLE WATER

Client Sample ID: 24082414-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**E903.0**	**E903-904**	Analyst: **SMZ**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	9/23/2024 10:10:02 AM
Yield	1.00					1	9/23/2024 10:10:02 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **SMZ**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.430	1	9/20/2024 2:09:34 PM
Yield	0.960					1	9/20/2024 2:09:34 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24090112**

24-Sep-24

Client: TEKLAB Inc,
Project: 24082414 **BatchID:** **78638**

Sample ID: **MB-78638** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193694**
Client ID: **PBW** Batch ID: **78638** TestNo: **E904.0** **E903-904** Analysis Date: **9/20/2024** SeqNo: **5243171**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.940			0	0						

Sample ID: **LCS-78638** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193694**
Client ID: **LCSW** Batch ID: **78638** TestNo: **E904.0** **E903-904** Analysis Date: **9/20/2024** SeqNo: **5243172**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.52	1.00	5.000	0	50.4	50	130				QLR
Yield	0.910			0	0						

Sample ID: **LCSD-78638** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193694**
Client ID: **LCSS02** Batch ID: **78638** TestNo: **E904.0** **E903-904** Analysis Date: **9/20/2024** SeqNo: **5243173**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.45	1.00	5.000	0	69.0	50	130	2.520	31.2	20	R
Yield	1.00			0	0			0.9100	9.42		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24090112**

24-Sep-24

Client: TEKLAB Inc,
Project: 24082414 **BatchID:** **78638**

Sample ID: **24082205-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193694**
Client ID: **BatchQC** Batch ID: **78638** TestNo: **E904.0** **E903-904** Analysis Date: **9/20/2024** SeqNo: **5243178**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Sample ID: **24082207-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193694**
Client ID: **BatchQC** Batch ID: **78638** TestNo: **E904.0** **E903-904** Analysis Date: **9/20/2024** SeqNo: **5243180**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24090112**

24-Sep-24

Client: TEKLAB Inc,
Project: 24082414 **BatchID:** **78638**

Sample ID: **MB-78638** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193700**
Client ID: **PBW** Batch ID: **78638** TestNo: **E903.0** **E903-904** Analysis Date: **9/23/2024** SeqNo: **5243274**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-78638** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193700**
Client ID: **LCSW** Batch ID: **78638** TestNo: **E903.0** **E903-904** Analysis Date: **9/23/2024** SeqNo: **5243275**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.26	1.00	5.000	0	85.2	70	130				

Sample ID: **LCSD-78638** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193700**
Client ID: **LCSS02** Batch ID: **78638** TestNo: **E903.0** **E903-904** Analysis Date: **9/23/2024** SeqNo: **5243276**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.63	1.00	5.000	0	92.6	70	130	4.260	8.32	20	

Sample ID: **24082205-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193700**
Client ID: **BatchQC** Batch ID: **78638** TestNo: **E903.0** **E903-904** Analysis Date: **9/23/2024** SeqNo: **5243281**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24090112**

24-Sep-24

Client: TEKLAB Inc,
Project: 24082414 **BatchID:** **78638**

Sample ID: **24082205-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193700**
Client ID: **BatchQC** Batch ID: **78638** TestNo: **E903.0** **E903-904** Analysis Date: **9/23/2024** SeqNo: **5243281**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **24082207-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/17/2024** RunNo: **193700**
Client ID: **BatchQC** Batch ID: **78638** TestNo: **E903.0** **E903-904** Analysis Date: **9/23/2024** SeqNo: **5243283**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Pg ___ of ___

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

24090112

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Client | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Project# 24082414

Contact: Shelly Hennessy | Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT | Billing/PO: 36929 | Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228
	24082414-001	8/29/24 1001	HNO3	Groundwater	✔ cpm=37 pH=1
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	
			Other	Aqueous	

*Relinquished By	Date/Time	Received By	Date/Time
Chris Dale	8/29/24 1700	C. Ge	9/3/24 1700

17.3-0.1=17.2
Fedex coder
4608
8/29/24

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

September 18, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 24080243

Dear Eric Staley:

TEKLAB, INC received 12 samples on 8/13/2024 2:27:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Work Order: 24080243
Client Project: FGDS Landfill
Report Date: 18-Sep-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	20
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 24080243

Client Project: FGDS Landfill
Report Date: 18-Sep-24

Qualifiers

# -	Unknown hydrocarbon
B -	Analyte detected in associated Method Blank
C -	RL shown is a Client Requested Quantitation Limit
E -	Value above quantitation range
H -	Holding times exceeded
I -	Associated internal standard was outside method criteria
J -	Analyte detected below quantitation limits
M -	Manual Integration used to determine area response
ND -	Not Detected at the Reporting Limit
R -	RPD outside accepted recovery limits
S -	Spike Recovery outside recovery limits
T -	TIC(Tentatively identified compound)
X -	Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24080243
Client Project: FGDS Landfill
Report Date: 18-Sep-24

Cooler Receipt Temp: 12.1 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 24080243
Client Project: FGDS Landfill
Report Date: 18-Sep-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 08/12/2024 11:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	08/12/2024 11:32	R352006
Depth to water	*	-5.00		**4.76**	ft	1	08/12/2024 11:32	R352006
Depth to water from measuring point	*	0		**7.56**	ft	1	08/12/2024 11:32	R352006
Elevation of groundwater surface	*	0		**539.24**	ft	1	08/12/2024 11:32	R352006
Measuring Point Elevation	*	0		**546.80**	ft	1	08/12/2024 11:32	R352006
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	08/12/2024 11:32	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	08/12/2024 11:32	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.9**	°F	1	08/12/2024 11:32	R352006
SW-846 9040B								
pH, Field	*	1.00		**6.54**		1	08/12/2024 11:32	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1220**	umhos/cm @25C	1	08/12/2024 11:32	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**834**	mg/L	1	08/16/2024 11:59	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**268**	mg/L	10	08/20/2024 15:54	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.12**	mg/L	1	08/19/2024 10:27	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**109**	mg/L	5	08/20/2024 15:43	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0350**	mg/L	1	08/14/2024 17:45	227065
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2024 17:45	227065
Boron	NELAP	0.0200		**0.121**	mg/L	1	08/14/2024 17:45	227065
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2024 17:45	227065
Calcium	NELAP	0.100	S	**162**	mg/L	1	08/14/2024 17:45	227065
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:45	227065
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:45	227065
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2024 17:45	227065
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2024 17:45	227065
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 11:39	227065
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 0:35	227065
Lithium	*	0.0030		**0.0188**	mg/L	5	08/15/2024 11:39	227065
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 0:35	227065
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 0:35	227065
CCV recovered outside the upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2024 13:19	227055
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 08/13/2024 12:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.05**	ft	1	08/13/2024 12:15	R352006
Depth to water	*	-5.00		**23.11**	ft	1	08/13/2024 12:15	R352006
Depth to water from measuring point	*	0		**25.72**	ft	1	08/13/2024 12:15	R352006
Elevation of groundwater surface	*	0		**531.48**	ft	1	08/13/2024 12:15	R352006
Measuring Point Elevation	*	0		**557.20**	ft	1	08/13/2024 12:15	R352006
Measuring Point Height Above Land Surface	*	0		**2.61**	ft	1	08/13/2024 12:15	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.5**	NTU	1	08/13/2024 12:15	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**69.1**	°F	1	08/13/2024 12:15	R352006
SW-846 9040B								
pH, Field	*	1.00		**6.68**		1	08/13/2024 12:15	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**814**	umhos/cm @25C	1	08/13/2024 12:15	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**436**	mg/L	1	08/16/2024 12:00	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**10**	mg/L	1	08/20/2024 16:04	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.14**	mg/L	1	08/19/2024 10:30	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**7**	mg/L	1	08/20/2024 16:05	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.183**	mg/L	1	08/15/2024 16:03	227124
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/15/2024 16:03	227124
Boron	NELAP	0.0200		**0.0996**	mg/L	1	08/15/2024 16:03	227124
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/15/2024 16:03	227124
Calcium	NELAP	0.100		**100**	mg/L	1	08/15/2024 16:03	227124
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:03	227124
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:03	227124
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/15/2024 16:03	227124
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/15/2024 16:03	227124
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 14:34	227124
Arsenic	NELAP	0.0010		**0.0046**	mg/L	5	08/15/2024 14:34	227124
Lithium	*	0.0030		**< 0.0030**	mg/L	5	08/15/2024 14:34	227124
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 14:34	227124
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 14:34	227124
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/15/2024 16:26	227118
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-003 **Client Sample ID:** R111

Matrix: GROUNDWATER **Collection Date:** 08/12/2024 13:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.25**	ft	1	08/12/2024 13:15	R352006
Depth to water	*	-5.00		**26.29**	ft	1	08/12/2024 13:15	R352006
Depth to water from measuring point	*	0		**26.29**	ft	1	08/12/2024 13:15	R352006
Elevation of groundwater surface	*	0		**527.71**	ft	1	08/12/2024 13:15	R352006
Measuring Point Elevation	*	0		**554.00**	ft	1	08/12/2024 13:15	R352006
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	08/12/2024 13:15	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.0**	NTU	1	08/12/2024 13:15	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.3**	°F	1	08/12/2024 13:15	R352006
SW-846 9040B								
pH, Field	*	1.00		**6.84**		1	08/12/2024 13:15	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**799**	umhos/cm @25C	1	08/12/2024 13:15	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**832**	mg/L	1	08/16/2024 12:00	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**32**	mg/L	1	08/20/2024 16:13	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.14**	mg/L	1	08/19/2024 10:31	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**185**	mg/L	5	08/22/2024 9:24	R352158
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.639**	mg/L	1	08/14/2024 17:57	227065
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2024 17:57	227065
Boron	NELAP	0.0200		**3.50**	mg/L	1	08/14/2024 17:57	227065
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2024 17:57	227065
Calcium	NELAP	0.100		**163**	mg/L	1	08/14/2024 17:57	227065
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:57	227065
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:57	227065
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2024 17:57	227065
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2024 17:57	227065
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0014**	mg/L	5	08/15/2024 12:54	227065
Arsenic	NELAP	0.0010		**0.0166**	mg/L	5	08/15/2024 1:28	227065
Lithium	*	0.0030		**0.0070**	mg/L	5	08/15/2024 12:54	227065
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 1:28	227065
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 1:28	227065
CCV recovered outside the upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2024 13:21	227055
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-004 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 08/13/2024 9:33

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.99**	ft	1	08/13/2024 9:33	R352006
Depth to water	*	-5.00		**26.79**	ft	1	08/13/2024 9:33	R352006
Depth to water from measuring point	*	0		**28.97**	ft	1	08/13/2024 9:33	R352006
Elevation of groundwater surface	*	0		**525.83**	ft	1	08/13/2024 9:33	R352006
Measuring Point Elevation	*	0		**554.80**	ft	1	08/13/2024 9:33	R352006
Measuring Point Height Above Land Surface	*	0		**2.18**	ft	1	08/13/2024 9:33	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**47**	NTU	1	08/13/2024 9:33	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.2**	°F	1	08/13/2024 9:33	R352006
SW-846 9040B								
pH, Field	*	1.00		**7.19**		1	08/13/2024 9:33	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1620**	umhos/cm @25C	1	08/13/2024 9:33	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1040**	mg/L	1	08/16/2024 12:01	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**227**	mg/L	10	08/20/2024 16:47	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.16**	mg/L	1	08/19/2024 10:33	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	40		**176**	mg/L	10	08/20/2024 16:47	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.539**	mg/L	1	08/15/2024 16:03	227124
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/15/2024 16:03	227124
Boron	NELAP	0.0200		**0.445**	mg/L	1	08/15/2024 16:03	227124
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/15/2024 16:03	227124
Calcium	NELAP	0.100		**217**	mg/L	1	08/15/2024 16:03	227124
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:03	227124
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:03	227124
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/15/2024 16:03	227124
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/15/2024 16:03	227124
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 14:40	227124
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	08/16/2024 11:29	227124
Lithium	*	0.0030		**0.0264**	mg/L	5	08/15/2024 14:40	227124
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 14:40	227124
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 14:40	227124
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/15/2024 16:33	227118
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 08/12/2024 10:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**524.85**	ft	1	08/12/2024 10:35	R352006
Depth to water	*	-5.00		**4.39**	ft	1	08/12/2024 10:35	R352006
Depth to water from measuring point	*	0		**6.89**	ft	1	08/12/2024 10:35	R352006
Elevation of groundwater surface	*	0		**530.81**	ft	1	08/12/2024 10:35	R352006
Measuring Point Elevation	*	0		**537.70**	ft	1	08/12/2024 10:35	R352006
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	08/12/2024 10:35	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.3**	NTU	1	08/12/2024 10:35	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.6**	°F	1	08/12/2024 10:35	R352006
SW-846 9040B								
pH, Field	*	1.00		**6.23**		1	08/12/2024 10:35	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1430**	umhos/cm @25C	1	08/12/2024 10:35	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1020**	mg/L	1	08/16/2024 12:03	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		**131**	mg/L	5	08/20/2024 17:03	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.32**	mg/L	1	08/19/2024 10:35	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**56**	mg/L	5	08/20/2024 17:03	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.263**	mg/L	1	08/14/2024 17:59	227065
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2024 17:59	227065
Boron	NELAP	0.0200		**1.94**	mg/L	1	08/14/2024 17:59	227065
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2024 17:59	227065
Calcium	NELAP	0.100		**251**	mg/L	1	08/14/2024 17:59	227065
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:59	227065
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:59	227065
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2024 17:59	227065
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2024 17:59	227065
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 12:59	227065
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 1:33	227065
Lithium	*	0.0030		**0.0040**	mg/L	5	08/15/2024 12:59	227065
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 1:33	227065
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 1:33	227065
CCV recovered outside the upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2024 13:23	227055
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-006 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 08/13/2024 11:34

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	08/13/2024 11:34	R352006
Depth to water	*	-5.00		**17.65**	ft	1	08/13/2024 11:34	R352006
Depth to water from measuring point	*	0		**17.65**	ft	1	08/13/2024 11:34	R352006
Elevation of groundwater surface	*	0		**535.45**	ft	1	08/13/2024 11:34	R352006
Measuring Point Elevation	*	0		**553.10**	ft	1	08/13/2024 11:34	R352006
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	08/13/2024 11:34	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.6**	NTU	1	08/13/2024 11:34	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**65.3**	°F	1	08/13/2024 11:34	R352006
SW-846 9040B								
pH, Field	*	1.00		**6.81**		1	08/13/2024 11:34	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1880**	umhos/cm @25C	1	08/13/2024 11:34	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1450**	mg/L	1	08/16/2024 12:18	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**534**	mg/L	20	08/20/2024 17:24	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.16**	mg/L	1	08/19/2024 10:36	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**41**	mg/L	1	08/20/2024 17:06	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.614**	mg/L	1	08/15/2024 16:04	227124
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/15/2024 16:04	227124
Boron	NELAP	0.0200		**7.71**	mg/L	1	08/15/2024 16:04	227124
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/15/2024 16:04	227124
Calcium	NELAP	0.100		**240**	mg/L	1	08/15/2024 16:04	227124
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:04	227124
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:04	227124
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/15/2024 16:04	227124
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/15/2024 16:04	227124
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 14:45	227124
Arsenic	NELAP	0.0010		**0.0104**	mg/L	5	08/15/2024 14:45	227124
Lithium	*	0.0030		**0.0081**	mg/L	5	08/15/2024 14:45	227124
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 14:45	227124
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 14:45	227124
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/15/2024 16:35	227118
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 08/13/2024 10:41

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	08/13/2024 10:41	R352006
Depth to water	*	-5.00		**27.47**	ft	1	08/13/2024 10:41	R352006
Depth to water from measuring point	*	0		**29.34**	ft	1	08/13/2024 10:41	R352006
Elevation of groundwater surface	*	0		**526.26**	ft	1	08/13/2024 10:41	R352006
Measuring Point Elevation	*	0		**555.60**	ft	1	08/13/2024 10:41	R352006
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	08/13/2024 10:41	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**22**	NTU	1	08/13/2024 10:41	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.0**	°F	1	08/13/2024 10:41	R352006
SW-846 9040B								
pH, Field	*	1.00		**6.90**		1	08/13/2024 10:41	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1530**	umhos/cm @25C	1	08/13/2024 10:41	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**936**	mg/L	1	08/16/2024 12:18	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**260**	mg/L	10	08/20/2024 17:32	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.17**	mg/L	1	08/19/2024 10:38	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**30**	mg/L	1	08/20/2024 17:27	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.500**	mg/L	1	08/15/2024 16:05	227124
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/15/2024 16:05	227124
Boron	NELAP	0.0200		**3.04**	mg/L	1	08/15/2024 16:05	227124
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/15/2024 16:05	227124
Calcium	NELAP	0.100		**164**	mg/L	1	08/15/2024 16:05	227124
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:05	227124
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:05	227124
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/15/2024 16:05	227124
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/15/2024 16:05	227124
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0087**	mg/L	5	08/15/2024 15:36	227124
Arsenic	NELAP	0.0010		**0.0084**	mg/L	5	08/15/2024 15:36	227124
Lithium	*	0.0030		**0.0083**	mg/L	5	08/15/2024 15:36	227124
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 15:36	227124
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 15:36	227124
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/15/2024 16:37	227118
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 08/13/2024 10:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	08/13/2024 10:14	R352006
Depth to water	*	-5.00		**29.47**	ft	1	08/13/2024 10:14	R352006
Depth to water from measuring point	*	0		**31.21**	ft	1	08/13/2024 10:14	R352006
Elevation of groundwater surface	*	0		**523.19**	ft	1	08/13/2024 10:14	R352006
Measuring Point Elevation	*	0		**554.40**	ft	1	08/13/2024 10:14	R352006
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	08/13/2024 10:14	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**17**	NTU	1	08/13/2024 10:14	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.5**	°F	1	08/13/2024 10:14	R352006
SW-846 9040B								
pH, Field	*	1.00		**6.80**		1	08/13/2024 10:14	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1790**	umhos/cm @25C	1	08/13/2024 10:14	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1380**	mg/L	1	08/16/2024 12:18	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**523**	mg/L	20	08/20/2024 17:40	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.14**	mg/L	1	08/19/2024 10:41	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**39**	mg/L	1	08/20/2024 17:35	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.497**	mg/L	1	08/15/2024 16:06	227124
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/15/2024 16:06	227124
Boron	NELAP	0.0200		**10.8**	mg/L	1	08/15/2024 16:06	227124
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/15/2024 16:06	227124
Calcium	NELAP	0.100		**225**	mg/L	1	08/15/2024 16:06	227124
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:06	227124
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:06	227124
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/15/2024 16:06	227124
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/15/2024 16:06	227124
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0029**	mg/L	5	08/15/2024 15:42	227124
Arsenic	NELAP	0.0010		**0.0019**	mg/L	5	08/15/2024 15:42	227124
Lithium	*	0.0030		**0.0082**	mg/L	5	08/15/2024 15:42	227124
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 15:42	227124
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 15:42	227124
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/15/2024 16:40	227118
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 08/13/2024 9:51

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	08/13/2024 9:51	R352006
Depth to water	*	-5.00		**12.82**	ft	1	08/13/2024 9:51	R352006
Depth to water from measuring point	*	0		**15.57**	ft	1	08/13/2024 9:51	R352006
Elevation of groundwater surface	*	0		**540.03**	ft	1	08/13/2024 9:51	R352006
Measuring Point Elevation	*	0		**555.60**	ft	1	08/13/2024 9:51	R352006
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	08/13/2024 9:51	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**51**	NTU	1	08/13/2024 9:51	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.5**	°F	1	08/13/2024 9:51	R352006
SW-846 9040B								
pH, Field	*	1.00		**6.58**		1	08/13/2024 9:51	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1420**	umhos/cm @25C	1	08/13/2024 9:51	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1190**	mg/L	1	08/16/2024 12:19	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**406**	mg/L	20	08/20/2024 17:48	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**< 0.10**	mg/L	1	08/19/2024 10:51	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**41**	mg/L	1	08/20/2024 17:43	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.602**	mg/L	1	08/15/2024 16:06	227124
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/15/2024 16:06	227124
Boron	NELAP	0.0200		**9.19**	mg/L	1	08/15/2024 16:06	227124
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/15/2024 16:06	227124
Calcium	NELAP	0.100		**186**	mg/L	1	08/15/2024 16:06	227124
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:06	227124
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2024 16:06	227124
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/15/2024 16:06	227124
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/15/2024 16:06	227124
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0016**	mg/L	5	08/15/2024 15:47	227124
Arsenic	NELAP	0.0010		**0.129**	mg/L	5	08/15/2024 15:47	227124
Lithium	*	0.0030		**0.0145**	mg/L	5	08/15/2024 15:47	227124
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 15:47	227124
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 15:47	227124
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/15/2024 16:42	227118
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-010 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 08/12/2024 11:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	08/12/2024 11:23	R352006
Depth to water	*	-5.00		**2.99**	ft	1	08/12/2024 11:23	R352006
Depth to water from measuring point	*	0		**6.29**	ft	1	08/12/2024 11:23	R352006
Elevation of groundwater surface	*	0		**523.69**	ft	1	08/12/2024 11:23	R352006
Measuring Point Elevation	*	0		**529.98**	ft	1	08/12/2024 11:23	R352006
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	08/12/2024 11:23	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.8**	NTU	1	08/12/2024 11:23	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.2**	°F	1	08/12/2024 11:23	R352006
SW-846 9040B								
pH, Field	*	1.00		**6.65**		1	08/12/2024 11:23	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**963**	umhos/cm @25C	1	08/12/2024 11:23	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**774**	mg/L	1	08/16/2024 12:19	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		**153**	mg/L	5	08/20/2024 17:56	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.12**	mg/L	1	08/19/2024 10:53	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**34**	mg/L	1	08/20/2024 17:51	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.644**	mg/L	1	08/14/2024 18:00	227065
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2024 18:00	227065
Boron	NELAP	0.0200		**2.99**	mg/L	1	08/14/2024 18:00	227065
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2024 18:00	227065
Calcium	NELAP	0.100		**152**	mg/L	1	08/14/2024 18:00	227065
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 18:00	227065
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 18:00	227065
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2024 18:00	227065
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2024 18:00	227065
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 13:05	227065
Arsenic	NELAP	0.0010		**0.0180**	mg/L	5	08/15/2024 1:39	227065
Lithium	*	0.0030		**0.0071**	mg/L	5	08/15/2024 13:05	227065
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 1:39	227065
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 1:39	227065
CCV recovered outside the upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2024 13:26	227055
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-011 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 08/12/2024 10:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	08/12/2024 10:18	R352006
Depth to water	*	-5.00		**8.61**	ft	1	08/12/2024 10:18	R352006
Depth to water from measuring point	*	0		**11.31**	ft	1	08/12/2024 10:18	R352006
Elevation of groundwater surface	*	0		**528.19**	ft	1	08/12/2024 10:18	R352006
Measuring Point Elevation	*	0		**539.50**	ft	1	08/12/2024 10:18	R352006
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	08/12/2024 10:18	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**39**	NTU	1	08/12/2024 10:18	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.3**	°F	1	08/12/2024 10:18	R352006
SW-846 9040B								
pH, Field	*	1.00		**7.23**		1	08/12/2024 10:18	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**698**	umhos/cm @25C	1	08/12/2024 10:18	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**344**	mg/L	1	08/16/2024 9:41	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**14**	mg/L	1	08/20/2024 0:00	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.43**	mg/L	1	08/19/2024 9:31	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**29**	mg/L	1	08/20/2024 0:00	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.146**	mg/L	1	08/14/2024 17:13	227065
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2024 17:13	227065
Boron	NELAP	0.0200		**0.122**	mg/L	1	08/14/2024 17:13	227065
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2024 17:13	227065
Calcium	NELAP	0.100		**63.2**	mg/L	1	08/14/2024 17:13	227065
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:13	227065
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 17:13	227065
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2024 17:13	227065
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2024 17:13	227065
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 9:54	227065
Arsenic	NELAP	0.0010		**0.107**	mg/L	5	08/14/2024 22:56	227065
Lithium	*	0.0030		**0.0038**	mg/L	5	08/14/2024 22:56	227065
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2024 22:56	227065
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/14/2024 22:56	227065
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2024 0:00	227055
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Client: City Water, Light & Power **Work Order:** 24080243

Client Project: FGDS Landfill **Report Date:** 18-Sep-24

Lab ID: 24080243-012 **Client Sample ID:** P07D

Matrix: GROUNDWATER **Collection Date:** 08/12/2024 12:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**494.89**	ft	1	08/12/2024 12:21	R352006
Depth to water	*	-5.00		**3.42**	ft	1	08/12/2024 12:21	R352006
Depth to water from measuring point	*	0		**5.43**	ft	1	08/12/2024 12:21	R352006
Elevation of groundwater surface	*	0		**522.00**	ft	1	08/12/2024 12:21	R352006
Measuring Point Elevation	*	0		**527.43**	ft	1	08/12/2024 12:21	R352006
Measuring Point Height Above Land Surface	*	0		**2.01**	ft	1	08/12/2024 12:21	R352006
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**170**	NTU	1	08/12/2024 12:21	R352006
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.8**	°F	1	08/12/2024 12:21	R352006
SW-846 9040B								
pH, Field	*	1.00		**6.70**		1	08/12/2024 12:21	R352006
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1170**	umhos/cm @25C	1	08/12/2024 12:21	R352006
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1090**	mg/L	1	08/16/2024 12:27	R351892
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**332**	mg/L	10	08/20/2024 18:18	R352032
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.10**	mg/L	1	08/19/2024 10:56	R351930
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**37**	mg/L	1	08/20/2024 17:59	R352062
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**1.00**	mg/L	1	08/14/2024 18:02	227065
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2024 18:02	227065
Boron	NELAP	0.0200		**5.95**	mg/L	1	08/14/2024 18:02	227065
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2024 18:02	227065
Calcium	NELAP	0.100		**205**	mg/L	1	08/14/2024 18:02	227065
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 18:02	227065
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2024 18:02	227065
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2024 18:02	227065
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2024 18:02	227065
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 13:11	227065
Arsenic	NELAP	0.0010		**0.0394**	mg/L	5	08/15/2024 1:44	227065
Lithium	*	0.0030		**0.0085**	mg/L	5	08/15/2024 13:11	227065
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2024 1:44	227065
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2024 1:44	227065
CCV recovered outside the upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2024 13:33	227055
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302
Radium-228	*	0		**See Attached**	pci/L	1	09/13/2024 0:00	R353302

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 24080243
Report Date: 18-Sep-24

Carrier: Justin Colp

Received By: PRS

Completed by: Amber Dilallo
On: 13-Aug-24

Reviewed by: Ellie Hopkins
On: 13-Aug-24

Pages to follow: Chain of custody 4 Extra pages included 40

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	12.1
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐		
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐			

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Samples were received on 8/12/24 at 1635 on ice [12.1C - LTG#9]. pH strip #96651. - amberdilallo - 8/13/2024 8:26:48 AM

Samples were received on 8/13/24 at 1427 on ice [3.7C - LTG#5]. pH strip #96651. - amberdilallo - 8/13/2024 3:27:12 PM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24080243

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 12.1 °C UC9
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: pH/Gucsi
PS 8/13

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 24080242-001

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other ____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24080243-001	R101	8-12-24 1132	Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G110		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	R111	8.12.24 1315	Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	G113	8-12-24 1035	Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	G120		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	G121		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	G122		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AW-2	8.12.24 1123	Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	RW-3	8.12.24 1018	Groundwater	0	0								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
J-Colp	8.12.24 1635		8/12/24 1635

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24080243

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

*new well 3Q2024 KH 8/5/24

Client Comments:

*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
FGDS Landfill	J. Colp

RESULTS REQUESTED

☑ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED											
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity							
24080243-12	P07D *	8.12.24 1221	Groundwater	1	2								✔	✔	✔	✔	✔	✔							
			Groundwater																					
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Relinquished By	Date/Time	Received By	Date/Time
J. Colp	8.12.24 1635	Paul Zettler	8/12/24 1635

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24080243

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 3.7 °C UC5
Preserved in: ☐ LAB ☒ FIELD
LAB NOTES: PW96057

FOR LAB USE ONLY
LH 8/13/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 24080242-001

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity								
24080243-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
002	G110	8-13-24 1215	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
003	R111		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
004	G112	8.13.24 0933	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
005	G113		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
006	G120	8.13.24 1134	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
007	G121	8.13.24 1041	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
008	G122	8.13.24 1014	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
009	AW-1	8-13-24 951	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
011	RW-3		Groundwater	0	0								✓	✓	✓	✓	✓	✓								

Relinquished By	Date/Time	Received By	Date/Time
	8-13-24 1427		8/13/24 1427

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24080243

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:
*new well 3Q2024 KTH 8/5/24

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24080243-012	P07D *		Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	8-13-24 14:27		8/13/24 14:27

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Field Data Sheet

Project Name: CWLP- FGDS Landfill **Monitoring Point:** R101

Project Location: Springfield, IL

W.O. Number (s): 24080243 **Date (s):** 8/12/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 76 °F Wind Direction: N S E (W) (circle two if needed)

Precipitation: (None) Light Heavy Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/12/2024 11:04

Static Water Level: 7.56 feet below TOC

Total Depth: 35.27 feet below TOC

Water Column: 27.71 feet

Purging Activities

Purged By: Brett Gillihan Purge Date: 8/12/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 27.71 ft. x 35.27 = 0.78 L x 3 Vol. = 2.34 L **Based on 3 water volumes in 3/8" tubing.*

Actual Purge Volume (L): 6.1

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:04	0.0	214	purge start time						
11:20	3.5	↓	6.60	1,226	58.8	1.55	-33.3	20.34	
11:23	4.2		6.57	1,227	59.0	1.46	-28.4	16.84	
11:26	4.8		6.56	1,226	58.9	1.38	-24.5	15.51	
11:29	5.5		6.55	1,227	58.8	1.31	-20.1	13.84	
11:32	6.1		6.54	1,223	58.9	1.27	-18	12.87	

Sampling Activities

Sampled By: Brett Gillihan Sample Date/Time: 8/12/2024 11:32

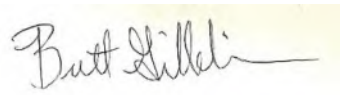
Sample Method: Low-Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.54 pH 1,223 Spec. Cond. 58.9 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 9.19 feet below TOC Drawdown: 1.63 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)



Form Completed By: **Date:** 8/12/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill **Monitoring Point:** G110
Project Location: Springfield, IL
W.O. Number (s): 24080243 **Date (s):** 8/13/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 75 °F Wind Direction: N S E (W) (circle two if needed)
Precipitation: (None) Light Heavy Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/13/2024 11:38
Static Water Level: 25.72 feet below TOC
Total Depth: 57.15 feet below TOC
Water Column: 31.43 feet

Purging Activities

Purged By: Brett Gillihan Purge Date: 8/13/2024
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 31.43 ft. x 57.15 = 1.26 L x 3 Vol. = 3.78 L **Based on 3 water volumes in 3/8" tubing.*
Actual Purge Volume (L): 4.6
Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:38	0.0	122	purge start time						
12:03	3.1	↓	6.92	808	72.7	4.40	-93.5	16.52	
12:06	3.5		6.80	813	71.0	4.31	-89.0	9.55	
12:09	3.9		6.73	817	69.3	4.13	-87.7	6.07	
12:12	4.2		6.69	813	69.3	4.13	-86.4	4.95	
12:15	4.6		6.68	814	69.1	4.06	-86.2	4.50	

Sampling Activities

Sampled By: Brett Gillihan Sample Date/Time: 8/13/2024 12:15
Sample Method: Low-Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.68 pH 814 Spec. Cond. 69.1 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 26.54 feet below TOC Drawdown: 0.82 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Brett Gillihan

Form Completed By: **Date:** 8/13/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill
Monitoring Point: R111
Project Location: Springfield, IL
W.O. Number (s): 24080243
Date (s): 8/12/2024

Field Team Members

Name: Tracy Carroll — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 73 °F — Wind Direction: (N) S E W (circle two if needed)
Precipitation: (None) Light Heavy — Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/12/2024 12:48
Static Water Level: 26.29 feet below TOC
Total Depth: 55.75 feet below TOC
Water Column: 29.46 feet

Purging Activities

Purged By: Tracy Carroll — Purge Date: 8/12/2024
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 29.46 ft. x 55.75 = 1.23 L x 3 Vol. = 3.69 L **Based on 3 water volumes in 3/8" tubing.*
Actual Purge Volume (L): 4.0
Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:53	0.0	182	purge start time						
13:03	1.8	↓	6.84	796	63.9	1.52	-116.4	7.55	
13:06	2.4		6.84	798	63.6	1.40	-116.7	6.13	
13:09	2.9		6.84	799	63.3	1.31	-117.9	5.19	
13:12	3.5		6.84	798	63.3	1.27	-118.8	5.24	
13:15	4.0		6.84	799	63.3	1.24	-118.7	4.04	

Sampling Activities

Sampled By: Tracy Carroll — Sample Date/Time: 8/12/2024 13:15
Sample Method: Low-Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.84 pH — 799 Spec. Cond. — 63.3 Temp
Field Filtered: Yes — Filter Type: Inline Disposable
Water Level: 26.40 feet below TOC — Drawdown: 0.11 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Tracy Carroll — **Date:** 8/12/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill **Monitoring Point:** G112
Project Location: Springfield, IL
W.O. Number (s): 24080243 **Date (s):** 8/13/2024

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 67 °F Wind Direction: (N) S E W (circle two if needed)
Precipitation: (None) Light Heavy Sky: Cloudy Sunny (Partly)

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/13/2024 9:13
Static Water Level: 28.97 feet below TOC
Total Depth: 58.81 feet below TOC
Water Column: 29.84 feet

Purging Activities

Purged By: Justin Colp Purge Date: 8/13/2024
Purge Method: Submersible Pump Well Diameter: 2"
Purge Volume Calculation (L): 29.84 ft. x 58.81 = 1.29 L x 3 Vol. = 3.87 L **Based on 3 water volumes in 3/8" tubing.*
Actual Purge Volume (L): 4.0
Physical appearance of purge water: Slightly Cloudy Odor: None Color: Light yellow

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:14	0.0	211	purge start time						
9:21	1.5	↓	7.19	1,624	60.8	1.43	91.9	72.50	
9:24	2.1		7.19	1,623	61.6	1.32	33.5	60.17	
9:27	2.7		7.20	1,628	62.1	1.87	2.8	46.78	
9:30	3.4		7.19	1,626	61.6	1.18	-14	48.63	
9:33	4.0		7.19	1,625	62.2	1.06	-24.1	47.06	

Sampling Activities

Sampled By: Justin Colp Sample Date/Time: 8/13/2024 9:33
Sample Method: Low-Flow Sample Equipment: Submersible Pump
Sample Parameters: 7.19 pH 1,625 Spec. Cond. 62.2 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 30.08 feet below TOC Drawdown: 1.11 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Justin Colp **Date:** 8/13/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill
Monitoring Point: G113
Project Location: Springfield, IL
W.O. Number (s): 24080243
Date (s): 8/12/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 75 °F Wind Direction: (N) S E W (circle two if needed)
Precipitation: (None) Light Heavy Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/12/2024 10:20
Static Water Level: 6.89 feet below TOC
Total Depth: 12.85 feet below TOC
Water Column: 5.96 feet

Purging Activities

Purged By: Brett Gillihan Purge Date: 8/12/2024
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 5.96 ft. x 12.85 = 0.28 L x 3 Vol. = 0.84 L **Based on 3 water volumes in 3/8" tubing.*
Actual Purge Volume (L): 4.1
Physical appearance of purge water: Clear Odor: Strong Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:20	0.0	267	purge start time						
10:23	0.9	↓	6.13	1,401	63.5	1.85	-160.7	6.45	
10:26	1.7		6.15	1,410	63.5	1.52	-181.4	4.60	
10:29	2.5		6.18	1,417	63.5	1.24	-198.6	3.97	
10:32	3.3		6.21	1,424	63.4	1.10	-212.5	3.98	
10:35	4.1		6.23	1,431	62.6	0.93	-222.6	6.26	

Sampling Activities

Sampled By: Brett Gillihan Sample Date/Time: 8/12/2024 10:35
Sample Method: Low-Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.23 pH 1,431 Spec. Cond. 62.6 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 7.42 feet below TOC Drawdown: 0.53 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Brett Gillihan **Date:** 8/12/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill **Monitoring Point:** G120

Project Location: Springfield, IL

W.O. Number (s): 24080243 **Date (s):** 8/13/2024

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 74 °F Wind Direction: N S E (W) (circle two if needed)

Precipitation: (None) Light Heavy Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/13/2024 11:14

Static Water Level: 17.65 feet below TOC

Total Depth: 50.37 feet below TOC

Water Column: 32.72 feet

Purging Activities

Purged By: Justin Colp Purge Date: 8/13/2024

Purge Method: Submersible Pump Well Diameter: 2"

Purge Volume Calculation (L): 32.72 ft. x 50.37 = 1.11 L x 3 Vol. = 3.33 L **Based on 3 water volumes in 3/8" tubing.*

Actual Purge Volume (L): 3.5

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:15	0.0	184	purge start time						
11:22	1.3	↓	6.85	1,881	63.8	2.42	-96.2	8.06	
11:25	1.9		6.81	1,881	62.5	0.93	-99.6	6.55	
11:28	2.4		6.81	1,881	63.4	0.79	-104.9	6.21	
11:31	3.0		6.81	1,885	64.0	0.75	-109.0	6.76	
11:34	3.5		6.81	1,883	65.3	0.73	-112.1	7.61	

Sampling Activities

Sampled By: Justin Colp Sample Date/Time: 8/13/2024 11:34

Sample Method: Low-Flow Sample Equipment: Submersible Pump

Sample Parameters: 6.81 pH 1,883 Spec. Cond. 65.3 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 18.79 feet below TOC Drawdown: 1.14 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Justin Colp **Date:** 8/13/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill **Monitoring Point:** G121

Project Location: Springfield, IL

W.O. Number (s): 24080243 **Date (s):** 8/13/2024

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 72 °F Wind Direction: N S E (W) (circle two if needed)

Precipitation: (None) Light Heavy Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/13/2024 10:21

Static Water Level: 29.34 feet below TOC

Total Depth: 58.56 feet below TOC

Water Column: 29.22 feet

Purging Activities

Purged By: Justin Colp Purge Date: 8/13/2024

Purge Method: Submersible Pump Well Diameter: 2"

Purge Volume Calculation (L): 29.22 ft. x 58.56 = 1.29 L x 3 Vol. = 3.87 L **Based on 3 water volumes in 3/8" tubing.*

Actual Purge Volume (L): 4.0

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:22	0.0	211	purge start time						
10:29	1.5	↓	7.00	1,433	63.0	1.41	-98.4	28.89	
10:32	2.1		6.96	1,442	66.0	1.22	-104.4	26.61	
10:35	2.8		6.94	1,472	64.5	1.05	-110.1	27.56	
10:38	3.4		6.90	1,527	63.2	0.93	-113.6	23.40	
10:41	4.0		6.90	1,530	63.0	0.85	-117.8	22.37	

Sampling Activities

Sampled By: Justin Colp Sample Date/Time: 8/13/2024 10:41

Sample Method: Low-Flow Sample Equipment: Submersible Pump

Sample Parameters: 6.90 pH 1,530 Spec. Cond. 63.0 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 30.00 feet below TOC Drawdown: 0.66 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Justin Colp **Date:** 8/13/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill **Monitoring Point:** G122
Project Location: Springfield, IL
W.O. Number (s): 24080243 **Date (s):** 8/13/2024

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 70 °F Wind Direction: N S E (W) (circle two if needed)
Precipitation: (None) Light Heavy Sky: Cloudy Sunny (Partly)

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/13/2024 9:48
Static Water Level: 31.21 feet below TOC
Total Depth: 49.29 feet below TOC
Water Column: 18.08 feet

Purging Activities

Purged By: Justin Colp Purge Date: 8/13/2024
Purge Method: Submersible Pump Well Diameter: 2"
Purge Volume Calculation (L): 18.08 ft. x 49.29 = 1.08 L x 3 Vol. = 3.24 L **Based on 3 water volumes in 3/8" tubing.*
Actual Purge Volume (L): 5.0
Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:49	0.0	200	purge start time						
10:02	2.6	↓	6.86	1,724	63.1	2.00	-86.7	20.54	
10:05	3.2		6.84	1,734	62.5	1.66	-91.5	20.95	
10:08	3.8		6.82	1,765	60.9	1.32	-94.3	17.97	
10:11	4.4		6.81	1,781	59.8	1.12	-97.5	17.85	
10:14	5.0		6.80	1,793	62.5	1.01	-100.6	17.43	

Sampling Activities

Sampled By: Justin Colp Sample Date/Time: 8/13/2024 10:14
Sample Method: Low-Flow Sample Equipment: Submersible Pump
Sample Parameters: 6.80 pH 1,793 Spec. Cond. 62.5 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 33.07 feet below TOC Drawdown: 1.86 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Justin Colp **Date:** 8/13/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill
Monitoring Point: AW-1
Project Location: Springfield, IL
W.O. Number (s): 24080243
Date (s): 8/13/2024

Field Team Members

Name: Brett Gillihan — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 70 °F — Wind Direction: N S E (W) (circle two if needed)
Precipitation: (None) Light Heavy — Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/13/2024 9:21
Static Water Level: 15.57 feet below TOC
Total Depth: 54.81 feet below TOC
Water Column: 39.24 feet

Purging Activities

Purged By: Brett Gillihan — Purge Date: 8/13/2024
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 39.24 ft. x 54.81 = 1.21 L x 3 Vol. = 3.63 L **Based on 3 water volumes in 3/8" tubing.*
Actual Purge Volume (L): 4.6
Physical appearance of purge water: Cloudy — Odor: None — Color: Light brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:21	0.0	150	purge start time						
9:39	2.8	↓	6.71	1,390	63.0	3.14	-24.8	57.38	
9:42	3.3		6.68	1,394	62.5	2.60	-50.0	57.42	
9:45	3.7		6.68	1,390	62.3	2.46	-49.4	57.79	
9:48	4.2		6.66	1,396	62.6	2.45	-56.3	51.84	
9:51	4.6		6.58	1,417	62.5	2.36	-69.5	51.12	

Sampling Activities

Sampled By: Brett Gillihan — Sample Date/Time: 8/13/2024 9:51
Sample Method: Low-Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.58 pH — 1,417 Spec. Cond. — 62.5 Temp
Field Filtered: Yes — Filter Type: Inline Disposable
Water Level: 17.34 feet below TOC — Drawdown: 1.77 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Brett Gillihan — **Date:** 8/13/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill **Monitoring Point:** AW-2

Project Location: Springfield, IL

W.O. Number (s): 24080243 **Date (s):** 8/12/2024

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 72 °F Wind Direction: N S E (W) (circle two if needed)

Precipitation: (None) Light Heavy Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/12/2024 10:50

Static Water Level: 6.29 feet below TOC

Total Depth: 32.64 feet below TOC

Water Column: 26.35 feet

Purging Activities

Purged By: Tracy Carroll Purge Date: 8/12/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 26.35 ft. x 32.64 = 0.72 L x 3 Vol. = 2.16 L **Based on 3 water volumes in 3/8" tubing.*

Actual Purge Volume (L): 6.6

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:57	0.0	250	purge start time						
11:11	3.6	↓	6.63	951	65.5	3.21	-106.8	9.84	
11:14	4.3		6.64	957	65.1	3.05	-105.3	5.87	
11:17	5.1		6.64	962	64.6	2.94	-121.1	3.39	
11:20	5.8		6.65	962	64.4	2.87	-111.4	3.44	
11:23	6.6		6.65	963	64.2	2.85	-106.1	2.85	

Sampling Activities

Sampled By: Tracy Carroll Sample Date/Time: 8/12/2024 11:23

Sample Method: Low-Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.65 pH 963 Spec. Cond. 64.2 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 6.36 feet below TOC Drawdown: 0.07 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Tracy Carroll **Date:** 8/12/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill **Monitoring Point:** RW-3

Project Location: Springfield, IL

W.O. Number (s): 24080243 **Date (s):** 8/12/2024

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 74 °F Wind Direction: (N) S E W (circle two if needed)

Precipitation: (None) Light Heavy Sky: (Cloudy) Sunny Partly

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Good			

Groundwater Level Measurements

Date/Time Measured: 8/12/2024 10:01

Static Water Level: 11.31 feet below TOC

Total Depth: 44.01 feet below TOC

Water Column: 32.70 feet

Purging Activities

Purged By: Justin Colp Purge Date: 8/12/2024

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 32.7 ft. x 44.01 = 0.97 L x 3 Vol. = 2.91 L **Based on 3 water volumes in 3/8" tubing.*

Actual Purge Volume (L): 3.1

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:03	0.0	200	purge start time						
10:06	0.6	↓	7.20	764	60.2	2.13	-61.3	7.69	
10:09	1.3		7.22	745	60.0	1.17	-110.3	14.43	
10:12	1.9		7.23	707	59.0	0.99	-122.2	27.14	
10:15	2.5		7.22	699	59.8	0.96	-124.7	35.75	
10:18	3.1		7.23	698	60.3	0.95	-125.9	38.75	

Sampling Activities

Sampled By: Justin Colp Sample Date/Time: 8/12/2024 10:18

Sample Method: Low-Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.23 pH 698 Spec. Cond. 60.3 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 11.46 feet below TOC Drawdown: 0.15 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Duplicate Collected

Form Completed By: Justin Colp **Date:** 8/12/2024

Field Data Sheet

Project Name: CWLP- FGDS Landfill **Monitoring Point:** P07D
Project Location: Springfield, IL
W.O. Number (s): 24080243 **Date (s):** 8/12/2024

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 73 °F Wind Direction: (N) S E W (circle two if needed)
Precipitation: (None) Light Heavy Sky: (Cloudy) Sunny Partly

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Good

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/12/2024 11:46
Static Water Level: 5.43 feet below TOC
Total Depth: 32.54 feet below TOC
Water Column: 27.11 feet

Purging Activities

Purged By: Tracy Carroll Purge Date: 8/12/2024
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 27.11 ft. x 32.54 = 0.72 L x 3 Vol. = 2.16 L **Based on 3 water volumes in 3/8" tubing.*
Actual Purge Volume (L): 7.5
Physical appearance of purge water: Clear Odor: None Color: Light orange

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µmhos/cm)	Temp (°F)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:53	0.0	268	purge start time						
12:09	4.3	↓	6.69	1,173	60.4	0.83	-119.1	217.46	
12:12	5.1		6.69	1,173	60.4	0.78	-120.1	161.59	
12:15	5.9		6.70	1,173	60.4	0.74	-120.5	104.52	
12:18	6.7		6.70	1,172	60.2	0.72	-121.0	134.96	
12:21	7.5		6.70	1,172	59.8	0.70	-120.1	172.06	

Sampling Activities

Sampled By: Tracy Carroll Sample Date/Time: 8/12/2024 12:21
Sample Method: Low-Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.70 pH 1,172 Spec. Cond. 59.8 Temp
Field Filtered: No Filter Type:
Water Level: 5.63 feet below TOC Drawdown: 0.20 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Form Completed By: Tracy Carroll **Date:** 8/12/2024

Site Samping Event: FGDS Landfill
LIMS Workorder: 24080243
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 3Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45985 Technician(s): Brett Gillihan Date: 8/12/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC240612A	4.01	8/12/24 9:59
7.0 Buffer	WC240307F	6.99	8/12/24 9:54
10.0 Buffer	WC240625B	9.99	8/12/24 10:02
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1410	8/12/24 10:09

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.4	8/12/24 10:15
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	8/12/24 10:19	22.4	7.01	1,410			
CCV-1-BG	CCV	8/12/24 15:30	23.6	7.04	1,416			

Comments:

Field Meter ID: Pine 45985 Technician(s): Brett Gillihan Date: 8/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC240612A	4.02	8/13/24 8:58
7.0 Buffer	WC240307F	7.00	8/13/24 8:54
10.0 Buffer	WC240625B	10.01	8/13/24 9:01
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1412	8/13/24 9:05

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.9	8/13/24 9:15
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	8/13/24 9:20	23.5	7.01	1,411			
CCV-2-BG	CCV	8/13/24 12:19	24.5	7.02	1,420			

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 24080243
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 3Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223344 Technician(s): Tracy Carroll Date: 8/12/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC240612A	4.01	8/12/24 10:31
7.0 Buffer	WC240307F	7.01	8/12/24 10:23
10.0 Buffer	WC240625B	10.00	8/12/24 10:39
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1412	8/12/24 10:39

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-TC	LCS	8/12/24 10:44	24.6	7.03	1,410			
CCV-1-TC	CCV	8/12/24 14:28	25.2	7.08	1,453			

Comments:

Field Meter ID: Pine 223344 Technician(s): Tracy Carroll Date: 8/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC240612A	4.00	8/13/24 9:38
7.0 Buffer	WC240307F	7.01	8/13/24 9:35
10.0 Buffer	WC240625B	10.00	8/13/24 9:41
LCS/CCV (7.0 Buffer)	WC231207A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1412	8/13/24 9:37

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-TC	LCS	8/13/24 9:42	21	7.02	1,413			
CCV-2-TC	CCV	8/13/24 14:18	22.5	7.06	1,422			

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 24080243
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 3Q 2024

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 218074 Technician(s): justin colp Date: 8/12/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc240612a	4.00	8/12/24 9:33
7.0 Buffer	wc240307f	6.99	8/12/24 9:30
10.0 Buffer	wc240625b	9.99	8/12/24 9:36
LCS/CCV (7.0 Buffer)	wc231207a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1413	8/12/24 9:39

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.41	8/12/24 9:42
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	8/12/24 9:45	23.2	6.99	1,413	0.41		
CCV-1-JC	CCV	8/12/24 14:44	24.49	7.01	1,427	0.47		

Comments:

Field Meter ID: Pine 218074 Technician(s): justin colp Date: 8/13/2024

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc240612a	3.99	8/13/24 8:55
7.0 Buffer	wc240307f	7.00	8/13/24 8:57
10.0 Buffer	wc240625b	10.00	8/13/24 8:59
LCS/CCV (7.0 Buffer)	wc231207a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	98627	1410	8/13/24 9:04

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.43	8/13/24 9:07
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

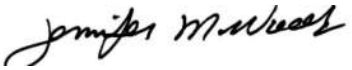
Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	8/13/24 9:10	23.1	7.00	1,410	0.43		
CCV-2-JC	CCV	8/13/24 11:36	24.8	7.02	1,416	0.47		

Comments:

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24090112 RcptNo: 1

Logged by:	Anthony W. Britton	9/3/2024 5:00:00 PM	
Completed By:	Anthony W. Britton	9/4/2024 2:28:52 PM	
Reviewed By:	Jennifer Woolf	9/6/2024 3:01:49 PM	

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐
   No. 4608 Seal Date: 8/29/2024 Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	17.2	Good	Yes	4608	8/29/2024	

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

September 17, 2024

Elizabeth Hurley
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24080243

Dear Elizabeth Hurley:

Order No.: 24081420

Summit Environmental Technologies, Inc. received 12 sample(s) on 8/19/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Summit Environmental Technologies, Inc.
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Website: http://www.settek.com

Case Narrative

WO#: **24081420**
Date: **9/17/2024**

CLIENT: TEKLAB Inc,
Project: 24080243

WorkOrder Narrative:
24081420: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

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Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24081420**
Date: **9/17/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24081420**

17-Sep-24

CLIENT: TEKLAB Inc,
Project: 24080243

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24081420-001	24080243-001		8/12/2024 11:32:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-002	24080243-002		8/13/2024 12:15:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-003	24080243-003		8/12/2024 1:15:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-004	24080243-004		8/13/2024 9:33:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-005	24080243-005		8/12/2024 10:35:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-006	24080243-006		8/13/2024 11:34:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-007	24080243-007		8/13/2024 10:41:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-008	24080243-008		8/13/2024 10:14:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-009	24080243-009		8/13/2024 9:51:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-010	24080243-010		8/12/2024 11:23:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-011	24080243-011		8/12/2024 10:18:00 AM	8/19/2024 12:30:00 PM	Non-Potable Water
24081420-012	24080243-012		8/12/2024 12:21:00 PM	8/19/2024 12:30:00 PM	Non-Potable Water

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DATES REPORT

WO#: **24081420**

17-Sep-24

Client: TEKLAB Inc,

Project: 24080243

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24081420-001A	24080243-001	8/12/2024 11:32:00 AM	Non-Potable Water	Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-002A	24080243-002	8/13/2024 12:15:00 PM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-003A	24080243-003	8/12/2024 1:15:00 PM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-004A	24080243-004	8/13/2024 9:33:00 AM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-005A	24080243-005	8/12/2024 10:35:00 AM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-006A	24080243-006	8/13/2024 11:34:00 AM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-007A	24080243-007	8/13/2024 10:41:00 AM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-008A	24080243-008	8/13/2024 10:14:00 AM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM

Original

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DATES REPORT

WO#: **24081420**

17-Sep-24

Client: TEKLAB Inc,

Project: 24080243

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24081420-008A	24080243-008	8/13/2024 10:14:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-009A	24080243-009	8/13/2024 9:51:00 AM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-010A	24080243-010	8/12/2024 11:23:00 AM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-011A	24080243-011	8/12/2024 10:18:00 AM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM
24081420-012A	24080243-012	8/12/2024 12:21:00 PM		Combined Radium (EPA903+904)			9/17/2024 12:00:15 PM
				Radium-226 (EPA 903.0)		9/10/2024 2:19:00 PM	9/16/2024 11:23:00 AM
				Radium-228 (EPA 904.0)		9/10/2024 2:19:00 PM	9/13/2024 2:18:00 PM

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC. Analytical Laboratories

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Analytical Report

(consolidated)

WO#: **24081420**

Date Reported: **9/17/2024**

CLIENT: TEKLAB Inc,

Collection Date: 8/13/2024 9:51:00 AM

Project: 24080243

Lab ID: 24081420-009

Matrix: NON-POTABLE WATER

Client Sample ID: 24080243-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**		Analyst: **HDJ**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.493	1	9/17/2024 12:00:15 PM
RAD226/228					**E903.0**	**E903-904**	Analyst: **HDJ**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.110	1	9/16/2024 11:23:00 AM
Yield	1.00					1	9/16/2024 11:23:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **HDJ**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.383	1	9/13/2024 2:18:00 PM
Yield	1.00					1	9/13/2024 2:18:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24081420**

17-Sep-24

Client: TEKLAB Inc,
Project: 24080243 **BatchID:** **78532**

Sample ID: **MB-78532**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/10/2024**	RunNo: **193266**
Client ID: **PBW**	Batch ID: **78532**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/13/2024**	SeqNo: **5230723**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-78532**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/10/2024**	RunNo: **193266**
Client ID: **LCSW**	Batch ID: **78532**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/13/2024**	SeqNo: **5230724**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.26	1.00	5.000	0	65.2	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-78532**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **9/10/2024**	RunNo: **193266**
Client ID: **LCSS02**	Batch ID: **78532**	TestNo: **E904.0**	**E903-904**	Analysis Date: **9/13/2024**	SeqNo: **5230725**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.71	1.00	5.000	0	74.2	50	130	3.259	12.9	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **24081420**

17-Sep-24

Client: TEKLAB Inc,

Project: 24080243 **BatchID:** **78532**

Sample ID: **24081891-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **9/10/2024** RunNo: **193266**

Client ID: **BatchQC** Batch ID: **78532** TestNo: **E904.0** **E903-904** Analysis Date: **9/13/2024** SeqNo: **5230761**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **24081420**

17-Sep-24

Client: TEKLAB Inc,
Project: 24080243 **BatchID:** **78532**

Sample ID: **MB-78532**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/10/2024**	RunNo: **193273**
Client ID: **PBW**	Batch ID: **78532**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/16/2024**	SeqNo: **5230910**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-78532**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/10/2024**	RunNo: **193273**
Client ID: **LCSW**	Batch ID: **78532**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/16/2024**	SeqNo: **5230911**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.33	1.00	5.000	0	86.7	70	130				

Sample ID: **LCSD-78532**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/10/2024**	RunNo: **193273**
Client ID: **LCSS02**	Batch ID: **78532**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/16/2024**	SeqNo: **5230912**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.53	1.00	5.000	0	90.7	70	130	4.334	4.53	20	

Sample ID: **24081891-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **9/10/2024**	RunNo: **193273**
Client ID: **BatchQC**	Batch ID: **78532**	TestNo: **E903.0**	**E903-904**	Analysis Date: **9/16/2024**	SeqNo: **5230934**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **24081420**

17-Sep-24

Client: TEKLAB Inc,
Project: 24080243 **BatchID:** **78532**

Sample ID: **24081891-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/10/2024** RunNo: **193273**
Client ID: **BatchQC** Batch ID: **78532** TestNo: **E903.0** **E903-904** Analysis Date: **9/16/2024** SeqNo: **5230934**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **24081894-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **9/10/2024** RunNo: **193273**
Client ID: **BatchQC** Batch ID: **78532** TestNo: **E903.0** **E903-904** Analysis Date: **9/16/2024** SeqNo: **5230936**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

24080420

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☒ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: Teklab, Inc. QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Ra226, Ra228 and Combinded Radium per your usual methods.
Changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site. Report 24080243-011 from 24080242-001. *

Project# 24080243

Contact: Shelly Hennessy Email: shennessy@teklabinc.com
Requested Due Date: Standard TAT Billing/PO: 36828 Phone: (618) 344-1004 ext. 36

no containers shipped for 24080243-011 SAH 8/14/24

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228	Radium 226	Radium 228										
	24080243-001	8/12/24 1132	HNO3	Groundwater	✔	✔	✔	plt	1		cpm	14					
	24080243-002	8/13/24 1215	HNO3	Groundwater	✔	✔	✔		1			19					
	24080243-003	8/12/24 1315	HNO3	Groundwater	✔	✔	✔		1			56					
	24080243-004	8/13/24 0933	HNO3	Groundwater	✔	✔	✔		1			37					
	24080243-005	8/12/24 1035	HNO3	Groundwater	✔	✔	✔		1			26					
	24080243-006	8/13/24 1134	HNO3	Groundwater	✔	✔	✔		1			18					
	24080243-007	8/13/24 1041	HNO3	Groundwater	✔	✔	✔		1			30					
	24080243-008	8/13/24 1014	HNO3	Groundwater	✔	✔	✔		1			6					
	24080243-009	8/13/24 0951	HNO3	Groundwater	✔	✔	✔		1			24					
	24080243-010	8/12/24 1123	HNO3	Groundwater	✔	✔	✔	↓	1			32					
	24080243-011 *	8/12/24 1018	HNO3	Groundwater	✔	✔	✔		1								

21.6 - 0.1 = 21.5, Fedex Cooler

*Relinquished By	Date/Time	Received By	Date/Time
Amber Duvall	8/13/24 1700	Anthony Buttons AUG 19 2024	1230

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Teklab, Inc. | QC Level: 2

Project# 24080243

Comments: **Please Issue reports and invoices via email only**
Please analyze for Ra226, Ra228 and Combinded Radium per your usual methods.
Changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site. Report 24080243-011 from 24080242-001.

Contact: Shelly Hennessy | Email: shennessy@teklabinc.com
Requested Due Date: Standard TAT | Billing/PO: 36828 | Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228	Radium 226	Radium 228									
	24080243-012	8/12/24 1221	HNO3	Groundwater	✔	✔	✔	pH	1	12=Cpm						
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												

21.6 - 0.1 = 21.5, Fedex Coder

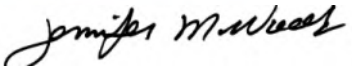
*Relinquished By	Date/Time	Received By	Date/Time
Shelby DeWalls	8/13/24 1700	Anthony Burton	AUG 19 2024 1230

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Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24081420 RcptNo: 1

Logged by:	Anthony W. Britton	8/19/2024 12:30:00 PM	
Completed By:	Anthony W. Britton	8/20/2024 1:40:48 PM	
Reviewed By:	Jennifer Woolf	8/20/2024 7:57:52 PM	

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	21.5	Good	Not Present			

Fourth Quarter 2024

December 06, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 24110120

Dear Eric Staley:

TEKLAB, INC received 20 samples on 11/13/2024 3:45:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24110120
Report Date: 06-Dec-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	27
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 24110120

Client Project: Ash Pond Monitoring Wells
Report Date: 06-Dec-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24110120
Report Date: 06-Dec-24

Cooler Receipt Temp: 10.9 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Summit Environmental Technologies. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Client Project: Ash Pond Monitoring Wells

Work Order: 24110120

Report Date: 06-Dec-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-001 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 11:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	11/11/2024 11:03	R356375
Depth to water	*	-5.00		**8.75**	ft	1	11/11/2024 11:03	R356375
Depth to water from measuring point	*	0		**11.45**	ft	1	11/11/2024 11:03	R356375
Elevation of groundwater surface	*	0		**528.05**	ft	1	11/11/2024 11:03	R356375
Measuring Point Elevation	*	0		**539.50**	ft	1	11/11/2024 11:03	R356375
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	11/11/2024 11:03	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**48**	NTU	1	11/11/2024 11:03	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.8**	°F	1	11/11/2024 11:03	R356375
SW-846 9040B								
pH, Field	*	1.00		**7.13**		1	11/11/2024 11:03	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**531**	µmhos/cm @25C	1	11/11/2024 11:03	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**470**	mg/L	2.5	11/14/2024 12:11	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 17:09	R355975
Chloride	NELAP	5.00		**25.1**	mg/L	10	11/13/2024 17:09	R355975
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/13/2024 17:09	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.180**	mg/L	1	11/12/2024 11:03	231044
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 11:03	231044
Boron	NELAP	0.0200		**0.137**	mg/L	1	11/12/2024 11:03	231044
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 11:03	231044
Calcium	NELAP	0.100		**67.2**	mg/L	1	11/12/2024 11:03	231044
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 11:03	231044
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 11:03	231044
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 11:03	231044
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 11:03	231044
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 22:11	231044
Arsenic	NELAP	0.0010		**0.214**	mg/L	5	11/14/2024 0:51	231044
Lithium	*	0.0030		**0.0047**	mg/L	5	11/14/2024 17:29	231044
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/14/2024 0:51	231044
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/14/2024 17:29	231044
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/13/2024 17:09	231083
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-002 **Client Sample ID:** AP-1

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 11:44

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**504.29**	ft	1	11/11/2024 11:44	R356375
Depth to water	*	-5.00		**8.12**	ft	1	11/11/2024 11:44	R356375
Depth to water from measuring point	*	0		**10.39**	ft	1	11/11/2024 11:44	R356375
Elevation of groundwater surface	*	0		**524.98**	ft	1	11/11/2024 11:44	R356375
Measuring Point Elevation	*	0		**535.37**	ft	1	11/11/2024 11:44	R356375
Measuring Point Height Above Land Surface	*	0		**2.27**	ft	1	11/11/2024 11:44	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	11/11/2024 11:44	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.2**	°F	1	11/11/2024 11:44	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.54**		1	11/11/2024 11:44	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1380**	µmhos/cm @25C	1	11/11/2024 11:44	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1640**	mg/L	2.5	11/14/2024 12:17	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 17:20	R355975
Chloride	NELAP	5.00		**52.1**	mg/L	10	11/13/2024 17:20	R355975
Sulfate	NELAP	10.0		**849**	mg/L	10	11/13/2024 17:20	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.269**	mg/L	1	11/12/2024 11:05	231044
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 11:05	231044
Boron	NELAP	0.200		**23.6**	mg/L	10	11/14/2024 9:56	231044
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 11:05	231044
Calcium	NELAP	0.100		**237**	mg/L	1	11/12/2024 11:05	231044
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 11:05	231044
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 11:05	231044
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 11:05	231044
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 11:05	231044
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 22:45	231044
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	11/14/2024 0:56	231044
Lithium	*	0.0030		**0.0094**	mg/L	5	11/14/2024 17:35	231044
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/14/2024 0:56	231044
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/14/2024 17:35	231044
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/13/2024 17:22	231083
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-003 **Client Sample ID:** AP-2

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 12:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	11/11/2024 12:21	R356375
Depth to water	*	-5.00		**4.04**	ft	1	11/11/2024 12:21	R356375
Depth to water from measuring point	*	0		**6.54**	ft	1	11/11/2024 12:21	R356375
Elevation of groundwater surface	*	0		**529.56**	ft	1	11/11/2024 12:21	R356375
Measuring Point Elevation	*	0		**536.10**	ft	1	11/11/2024 12:21	R356375
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	11/11/2024 12:21	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.0**	NTU	1	11/11/2024 12:21	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.3**	°F	1	11/11/2024 12:21	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.41**		1	11/11/2024 12:21	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1140**	µmhos/cm @25C	1	11/11/2024 12:21	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1160**	mg/L	2.5	11/14/2024 12:18	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 17:32	R355975
Chloride	NELAP	5.00		**35.1**	mg/L	10	11/13/2024 17:32	R355975
Sulfate	NELAP	10.0		**440**	mg/L	10	11/13/2024 17:32	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0727**	mg/L	1	11/12/2024 11:06	231044
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 11:06	231044
Boron	NELAP	0.0200		**3.52**	mg/L	1	11/12/2024 11:06	231044
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 11:06	231044
Calcium	NELAP	0.100		**222**	mg/L	1	11/12/2024 11:06	231044
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 11:06	231044
Cobalt	NELAP	0.0050		**0.0085**	mg/L	1	11/12/2024 11:06	231044
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 11:06	231044
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 11:06	231044
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 22:49	231044
Arsenic	NELAP	0.0010		**0.0016**	mg/L	5	11/14/2024 1:58	231044
Lithium	*	0.0030		**0.0068**	mg/L	5	11/14/2024 17:40	231044
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/14/2024 1:58	231044
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/14/2024 17:40	231044
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/13/2024 17:24	231083
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-004 **Client Sample ID:** AP-3

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 12:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	11/11/2024 12:55	R356375
Depth to water	*	-5.00		**7.00**	ft	1	11/11/2024 12:55	R356375
Depth to water from measuring point	*	0		**9.55**	ft	1	11/11/2024 12:55	R356375
Elevation of groundwater surface	*	0		**525.70**	ft	1	11/11/2024 12:55	R356375
Measuring Point Elevation	*	0		**535.25**	ft	1	11/11/2024 12:55	R356375
Measuring Point Height Above Land Surface	*	0		**2.55**	ft	1	11/11/2024 12:55	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.7**	NTU	1	11/11/2024 12:55	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.7**	°F	1	11/11/2024 12:55	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.48**		1	11/11/2024 12:55	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1070**	µmhos/cm @25C	1	11/11/2024 12:55	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1160**	mg/L	2.5	11/14/2024 12:18	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 17:44	R355975
Chloride	NELAP	5.00		**59.5**	mg/L	10	11/13/2024 17:44	R355975
Sulfate	NELAP	10.0		**558**	mg/L	10	11/13/2024 17:44	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.132**	mg/L	1	11/12/2024 11:08	231044
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 11:08	231044
Boron	NELAP	0.0200		**14.9**	mg/L	1	11/12/2024 11:08	231044
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 11:08	231044
Calcium	NELAP	0.100		**185**	mg/L	1	11/12/2024 11:08	231044
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 11:08	231044
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 11:08	231044
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 11:08	231044
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 11:08	231044
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 22:53	231044
Arsenic	NELAP	0.0010		**0.0182**	mg/L	5	11/14/2024 2:04	231044
Lithium	*	0.0030		**0.0062**	mg/L	5	11/14/2024 17:46	231044
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/14/2024 2:04	231044
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/14/2024 17:46	231044
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/13/2024 17:27	231083
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-005 **Client Sample ID:** AP-4

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 13:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.19**	ft	1	11/11/2024 13:38	R356375
Depth to water	*	-5.00		**7.77**	ft	1	11/11/2024 13:38	R356375
Depth to water from measuring point	*	0		**10.91**	ft	1	11/11/2024 13:38	R356375
Elevation of groundwater surface	*	0		**544.69**	ft	1	11/11/2024 13:38	R356375
Measuring Point Elevation	*	0		**555.60**	ft	1	11/11/2024 13:38	R356375
Measuring Point Height Above Land Surface	*	0		**3.14**	ft	1	11/11/2024 13:38	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	11/11/2024 13:38	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.6**	°F	1	11/11/2024 13:38	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.82**		1	11/11/2024 13:38	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**688**	µmhos/cm @25C	1	11/11/2024 13:38	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**565**	mg/L	2.5	11/14/2024 12:18	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 17:55	R355975
Chloride	NELAP	5.00		**12.3**	mg/L	10	11/13/2024 17:55	R355975
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/13/2024 17:55	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.390**	mg/L	1	11/12/2024 12:39	231044
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 12:39	231044
Boron	NELAP	0.0200		**0.0820**	mg/L	1	11/12/2024 12:39	231044
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 12:39	231044
Calcium	NELAP	0.100		**< 0.100**	mg/L	1	11/12/2024 12:39	231044
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 12:39	231044
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 12:39	231044
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 12:39	231044
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 12:39	231044
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 22:57	231044
Arsenic	NELAP	0.0010		**0.0246**	mg/L	5	11/14/2024 2:09	231044
Lithium	*	0.0030		**0.0077**	mg/L	5	11/14/2024 17:51	231044
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/14/2024 2:09	231044
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/14/2024 17:51	231044
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/13/2024 17:30	231083
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power
Work Order: 24110120
Client Project: Ash Pond Monitoring Wells
Report Date: 06-Dec-24
Lab ID: 24110120-006
Client Sample ID: AP-5
Matrix: GROUNDWATER
Collection Date: 11/11/2024 14:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**552.63**	ft	1	11/11/2024 14:28	R356375
Depth to water	*	-5.00		**13.98**	ft	1	11/11/2024 14:28	R356375
Depth to water from measuring point	*	0		**16.28**	ft	1	11/11/2024 14:28	R356375
Elevation of groundwater surface	*	0		**567.62**	ft	1	11/11/2024 14:28	R356375
Measuring Point Elevation	*	0		**583.90**	ft	1	11/11/2024 14:28	R356375
Measuring Point Height Above Land Surface	*	0		**2.30**	ft	1	11/11/2024 14:28	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.0**	NTU	1	11/11/2024 14:28	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.5**	°F	1	11/11/2024 14:28	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.90**		1	11/11/2024 14:28	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**569**	µmhos/cm @25C	1	11/11/2024 14:28	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**470**	mg/L	2.5	11/14/2024 12:18	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 18:07	R355975
Chloride	NELAP	5.00		**7.59**	mg/L	10	11/13/2024 18:07	R355975
Sulfate	NELAP	10.0		**59.2**	mg/L	10	11/13/2024 18:07	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0525**	mg/L	1	11/12/2024 12:41	231044
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 12:41	231044
Boron	NELAP	0.0200		**0.0326**	mg/L	1	11/12/2024 12:41	231044
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 12:41	231044
Calcium	NELAP	0.100		**92.6**	mg/L	1	11/12/2024 12:41	231044
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 12:41	231044
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 12:41	231044
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 12:41	231044
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 12:41	231044
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 23:01	231044
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	11/14/2024 2:15	231044
Lithium	*	0.0030		**0.0043**	mg/L	5	11/14/2024 17:57	231044
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/14/2024 2:15	231044
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/14/2024 17:57	231044
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/13/2024 17:38	231083
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power
Work Order: 24110120
Client Project: Ash Pond Monitoring Wells
Report Date: 06-Dec-24
Lab ID: 24110120-007
Client Sample ID: AP-6
Matrix: GROUNDWATER
Collection Date: 11/11/2024 10:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.20**	ft	1	11/11/2024 10:27	R356375
Depth to water	*	-5.00		**7.39**	ft	1	11/11/2024 10:27	R356375
Depth to water from measuring point	*	0		**9.81**	ft	1	11/11/2024 10:27	R356375
Elevation of groundwater surface	*	0		**528.01**	ft	1	11/11/2024 10:27	R356375
Measuring Point Elevation	*	0		**537.82**	ft	1	11/11/2024 10:27	R356375
Measuring Point Height Above Land Surface	*	0		**2.42**	ft	1	11/11/2024 10:27	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**46**	NTU	1	11/11/2024 10:27	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.2**	°F	1	11/11/2024 10:27	R356375
SW-846 9040B								
pH, Field	*	1.00		**7.00**		1	11/11/2024 10:27	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**557**	µmhos/cm @25C	1	11/11/2024 10:27	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**445**	mg/L	2.5	11/14/2024 12:18	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 18:19	R355975
Chloride	NELAP	5.00		**34.5**	mg/L	10	11/13/2024 18:19	R355975
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/13/2024 18:19	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.154**	mg/L	1	11/12/2024 19:30	231056
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 19:30	231056
Boron	NELAP	0.0200		**0.248**	mg/L	1	11/12/2024 19:30	231056
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 19:30	231056
Calcium	NELAP	0.100		**66.0**	mg/L	1	11/12/2024 19:30	231056
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:30	231056
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:30	231056
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 19:30	231056
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 19:30	231056
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0021**	mg/L	5	11/20/2024 8:55	231056
Arsenic	NELAP	0.0010		**0.0108**	mg/L	5	11/15/2024 4:50	231056
Lithium	*	0.0030		**0.0104**	mg/L	5	11/20/2024 8:55	231056
Selenium	NELAP	0.0010		**0.0022**	mg/L	5	11/15/2024 4:50	231056
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/15/2024 4:50	231056
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/13/2024 17:40	231083
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power
Work Order: 24110120
Client Project: Ash Pond Monitoring Wells
Report Date: 06-Dec-24
Lab ID: 24110120-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 11/13/2024 11:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	11/13/2024 11:07	R356375
Depth to water	*	-5.00		**9.78**	ft	1	11/13/2024 11:07	R356375
Depth to water from measuring point	*	0		**12.44**	ft	1	11/13/2024 11:07	R356375
Elevation of groundwater surface	*	0		**526.58**	ft	1	11/13/2024 11:07	R356375
Measuring Point Elevation	*	0		**539.02**	ft	1	11/13/2024 11:07	R356375
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	11/13/2024 11:07	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**55**	NTU	1	11/13/2024 11:07	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.7**	°F	1	11/13/2024 11:07	R356375
SW-846 9040B								
pH, Field	*	1.00		**7.17**		1	11/13/2024 11:07	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**774**	µmhos/cm @25C	1	11/13/2024 11:07	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**470**	mg/L	5	11/18/2024 15:00	R356427
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 7:20	R356148
Chloride	NELAP	5.00		**62.1**	mg/L	10	11/15/2024 7:20	R356148
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/15/2024 7:20	R356148
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.148**	mg/L	1	11/18/2024 11:13	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 11:13	231260
Boron	NELAP	0.0200		**0.332**	mg/L	1	11/18/2024 11:13	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 11:13	231260
Calcium	NELAP	0.100		**61.9**	mg/L	1	11/18/2024 11:13	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 11:13	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 11:13	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 11:13	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 11:13	231260
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 2:41	231194
Arsenic	NELAP	0.0010		**0.0947**	mg/L	5	11/20/2024 2:41	231194
Lithium	*	0.0030		**0.0079**	mg/L	5	11/20/2024 9:47	231194
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 2:41	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 2:41	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 11:23	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power
Work Order: 24110120
Client Project: Ash Pond Monitoring Wells
Report Date: 06-Dec-24
Lab ID: 24110120-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 11/13/2024 13:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	11/13/2024 13:15	R356375
Depth to water	*	-5.00		**4.42**	ft	1	11/13/2024 13:15	R356375
Depth to water from measuring point	*	0		**7.32**	ft	1	11/13/2024 13:15	R356375
Elevation of groundwater surface	*	0		**529.88**	ft	1	11/13/2024 13:15	R356375
Measuring Point Elevation	*	0		**537.20**	ft	1	11/13/2024 13:15	R356375
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	11/13/2024 13:15	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**12**	NTU	1	11/13/2024 13:15	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.3**	°F	1	11/13/2024 13:15	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.78**		1	11/13/2024 13:15	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**733**	µmhos/cm @25C	1	11/13/2024 13:15	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**530**	mg/L	2.5	11/18/2024 15:00	R356427
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 17:39	R356222
Chloride	NELAP	5.00		**23.2**	mg/L	10	11/15/2024 17:39	R356222
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/15/2024 17:39	R356222
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.364**	mg/L	1	11/18/2024 11:14	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 11:14	231260
Boron	NELAP	0.0200		**0.0840**	mg/L	1	11/18/2024 11:14	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 11:14	231260
Calcium	NELAP	0.100		**98.4**	mg/L	1	11/18/2024 11:14	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 11:14	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 11:14	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 11:14	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 11:14	231260
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 2:47	231194
Arsenic	NELAP	0.0010		**0.0386**	mg/L	5	11/20/2024 2:47	231194
Lithium	*	0.0030		**0.0069**	mg/L	5	11/20/2024 9:53	231194
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 2:47	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 2:47	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 11:52	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-010 **Client Sample ID:** AP-9

Matrix: GROUNDWATER **Collection Date:** 11/13/2024 12:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.70**	ft	1	11/13/2024 12:30	R356375
Depth to water	*	-5.00		**10.13**	ft	1	11/13/2024 12:30	R356375
Depth to water from measuring point	*	0		**13.23**	ft	1	11/13/2024 12:30	R356375
Elevation of groundwater surface	*	0		**527.07**	ft	1	11/13/2024 12:30	R356375
Measuring Point Elevation	*	0		**540.30**	ft	1	11/13/2024 12:30	R356375
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	11/13/2024 12:30	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.3**	NTU	1	11/13/2024 12:30	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.7**	°F	1	11/13/2024 12:30	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.80**		1	11/13/2024 12:30	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**968**	µmhos/cm @25C	1	11/13/2024 12:30	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**740**	mg/L	2.5	11/19/2024 15:09	R356516
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 17:51	R356222
Chloride	NELAP	5.00		**23.6**	mg/L	10	11/15/2024 17:51	R356222
Sulfate	NELAP	10.0		**17.7**	mg/L	10	11/15/2024 17:51	R356222
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.434**	mg/L	1	11/18/2024 12:05	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 12:05	231260
Boron	NELAP	0.0200		**0.0995**	mg/L	1	11/18/2024 12:05	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 12:05	231260
Calcium	NELAP	0.100		**104**	mg/L	1	11/18/2024 12:05	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:05	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:05	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 12:05	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 12:05	231260
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 2:53	231194
Arsenic	NELAP	0.0010		**0.0019**	mg/L	5	11/20/2024 2:53	231194
Lithium	*	0.0030		**0.0066**	mg/L	5	11/20/2024 9:58	231194
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 2:53	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 2:53	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 11:55	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-011 **Client Sample ID:** AP-10

Matrix: GROUNDWATER **Collection Date:** 11/12/2024 13:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**499.43**	ft	1	11/12/2024 13:07	R356375
Depth to water	*	-5.00		**2.49**	ft	1	11/12/2024 13:07	R356375
Depth to water from measuring point	*	0		**5.59**	ft	1	11/12/2024 13:07	R356375
Elevation of groundwater surface	*	0		**531.91**	ft	1	11/12/2024 13:07	R356375
Measuring Point Elevation	*	0		**537.50**	ft	1	11/12/2024 13:07	R356375
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	11/12/2024 13:07	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.2**	NTU	1	11/12/2024 13:07	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.1**	°F	1	11/12/2024 13:07	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.73**		1	11/12/2024 13:07	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1150**	µmhos/cm @25C	1	11/12/2024 13:07	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**790**	mg/L	2.5	11/15/2024 15:28	R356333
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/14/2024 13:51	R356148
Chloride	NELAP	5.00		**25.7**	mg/L	10	11/14/2024 13:51	R356148
Sulfate	NELAP	10.0		**89.4**	mg/L	10	11/14/2024 13:51	R356148
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.628**	mg/L	1	11/15/2024 10:50	231140
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/15/2024 10:50	231140
Boron	NELAP	0.0200		**3.95**	mg/L	1	11/15/2024 10:50	231140
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/15/2024 10:50	231140
Calcium	NELAP	0.100		**140**	mg/L	1	11/15/2024 10:50	231140
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 10:50	231140
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 10:50	231140
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/15/2024 10:50	231140
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/15/2024 10:50	231140
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 10:56	231140
Arsenic	NELAP	0.0010		**0.0011**	mg/L	5	11/16/2024 10:56	231140
Lithium	*	0.0030		**0.0101**	mg/L	5	11/20/2024 10:21	231140
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 10:56	231140
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/16/2024 10:56	231140
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 12:15	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357163

Client: City Water, Light & Power
Work Order: 24110120
Client Project: Ash Pond Monitoring Wells
Report Date: 06-Dec-24
Lab ID: 24110120-012
Client Sample ID: AP-11
Matrix: GROUNDWATER
Collection Date: 11/12/2024 10:01

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.15**	ft	1	11/12/2024 10:01	R356375
Depth to water	*	-5.00		**12.63**	ft	1	11/12/2024 10:01	R356375
Depth to water from measuring point	*	0		**15.43**	ft	1	11/12/2024 10:01	R356375
Elevation of groundwater surface	*	0		**522.67**	ft	1	11/12/2024 10:01	R356375
Measuring Point Elevation	*	0		**538.10**	ft	1	11/12/2024 10:01	R356375
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	11/12/2024 10:01	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.1**	NTU	1	11/12/2024 10:01	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.7**	°F	1	11/12/2024 10:01	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.66**		1	11/12/2024 10:01	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**958**	µmhos/cm @25C	1	11/12/2024 10:01	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**686**	mg/L	1	11/15/2024 15:28	R356333
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/14/2024 14:02	R356148
Chloride	NELAP	5.00		**91.0**	mg/L	10	11/14/2024 14:02	R356148
Sulfate	NELAP	10.0		**63.4**	mg/L	10	11/14/2024 14:02	R356148
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.122**	mg/L	1	11/15/2024 14:45	231140
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/15/2024 14:45	231140
Boron	NELAP	0.0200		**0.261**	mg/L	1	11/15/2024 14:45	231140
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/15/2024 14:45	231140
Calcium	NELAP	0.100		**124**	mg/L	1	11/15/2024 14:45	231140
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 14:45	231140
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 14:45	231140
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/15/2024 14:45	231140
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/15/2024 14:45	231140
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:01	231140
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:01	231140
Lithium	*	0.0030		**0.0050**	mg/L	5	11/20/2024 10:26	231140
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:01	231140
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/16/2024 11:01	231140
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 12:17	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163

Client: City Water, Light & Power
Work Order: 24110120
Client Project: Ash Pond Monitoring Wells
Report Date: 06-Dec-24
Lab ID: 24110120-013
Client Sample ID: AP-12
Matrix: GROUNDWATER
Collection Date: 11/12/2024 10:49

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**510.30**	ft	1	11/12/2024 10:49	R356375
Depth to water	*	-5.00		**15.02**	ft	1	11/12/2024 10:49	R356375
Depth to water from measuring point	*	0		**17.92**	ft	1	11/12/2024 10:49	R356375
Elevation of groundwater surface	*	0		**522.78**	ft	1	11/12/2024 10:49	R356375
Measuring Point Elevation	*	0		**540.70**	ft	1	11/12/2024 10:49	R356375
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	11/12/2024 10:49	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**26**	NTU	1	11/12/2024 10:49	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.6**	°F	1	11/12/2024 10:49	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.59**		1	11/12/2024 10:49	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1550**	µmhos/cm @25C	1	11/12/2024 10:49	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1300**	mg/L	2.5	11/15/2024 15:28	R356333
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/14/2024 15:01	R356148
Chloride	NELAP	5.00		**120**	mg/L	10	11/14/2024 15:01	R356148
Sulfate	NELAP	10.0		**457**	mg/L	10	11/14/2024 15:01	R356148
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0458**	mg/L	1	11/15/2024 14:46	231140
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/15/2024 14:46	231140
Boron	NELAP	0.0200		**< 0.0200**	mg/L	1	11/15/2024 14:46	231140
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/15/2024 14:46	231140
Calcium	NELAP	0.100		**203**	mg/L	1	11/15/2024 14:46	231140
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 14:46	231140
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 14:46	231140
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/15/2024 14:46	231140
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/15/2024 14:46	231140
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:07	231140
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:07	231140
Lithium	*	0.0030		**0.0065**	mg/L	5	11/20/2024 10:32	231140
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:07	231140
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/16/2024 11:07	231140
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 12:20	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357163

Client: City Water, Light & Power
Work Order: 24110120
Client Project: Ash Pond Monitoring Wells
Report Date: 06-Dec-24
Lab ID: 24110120-014
Client Sample ID: AP-13
Matrix: GROUNDWATER
Collection Date: 11/12/2024 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.00**	ft	1	11/12/2024 11:25	R356375
Depth to water	*	-5.00		**16.00**	ft	1	11/12/2024 11:25	R356375
Depth to water from measuring point	*	0		**19.40**	ft	1	11/12/2024 11:25	R356375
Elevation of groundwater surface	*	0		**522.60**	ft	1	11/12/2024 11:25	R356375
Measuring Point Elevation	*	0		**542.00**	ft	1	11/12/2024 11:25	R356375
Measuring Point Height Above Land Surface	*	0		**3.40**	ft	1	11/12/2024 11:25	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.3**	NTU	1	11/12/2024 11:25	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.8**	°F	1	11/12/2024 11:25	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.67**		1	11/12/2024 11:25	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**776**	µmhos/cm @25C	1	11/12/2024 11:25	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**655**	mg/L	2.5	11/15/2024 15:35	R356333
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/14/2024 15:12	R356148
Chloride	NELAP	5.00		**25.8**	mg/L	10	11/14/2024 15:12	R356148
Sulfate	NELAP	10.0		**121**	mg/L	10	11/14/2024 15:12	R356148
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.120**	mg/L	1	11/15/2024 14:47	231140
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/15/2024 14:47	231140
Boron	NELAP	0.0200		**< 0.0200**	mg/L	1	11/15/2024 14:47	231140
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/15/2024 14:47	231140
Calcium	NELAP	0.100		**103**	mg/L	1	11/15/2024 14:47	231140
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 14:47	231140
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 14:47	231140
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/15/2024 14:47	231140
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/15/2024 14:47	231140
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:13	231140
Arsenic	NELAP	0.0010		**0.0038**	mg/L	5	11/16/2024 11:13	231140
Lithium	*	0.0030		**0.0120**	mg/L	5	11/20/2024 10:38	231140
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:13	231140
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/16/2024 11:13	231140
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 12:38	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-015 **Client Sample ID:** AP-14

Matrix: GROUNDWATER **Collection Date:** 11/12/2024 13:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**508.40**	ft	1	11/12/2024 13:43	R356375
Depth to water	*	-5.00		**1.84**	ft	1	11/12/2024 13:43	R356375
Depth to water from measuring point	*	0		**4.64**	ft	1	11/12/2024 13:43	R356375
Elevation of groundwater surface	*	0		**534.96**	ft	1	11/12/2024 13:43	R356375
Measuring Point Elevation	*	0		**539.60**	ft	1	11/12/2024 13:43	R356375
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	11/12/2024 13:43	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.0**	NTU	1	11/12/2024 13:43	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.2**	°F	1	11/12/2024 13:43	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.93**		1	11/12/2024 13:43	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1740**	µmhos/cm @25C	1	11/12/2024 13:43	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1840**	mg/L	2.5	11/15/2024 15:35	R356333
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/14/2024 15:24	R356148
Chloride	NELAP	5.00		**94.0**	mg/L	10	11/14/2024 15:24	R356148
Sulfate	NELAP	10.0		**909**	mg/L	10	11/14/2024 15:24	R356148
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0413**	mg/L	1	11/15/2024 14:47	231140
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/15/2024 14:47	231140
Boron	NELAP	0.200		**21.0**	mg/L	10	11/18/2024 13:45	231140
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/15/2024 14:47	231140
Calcium	NELAP	0.100		**253**	mg/L	1	11/15/2024 14:47	231140
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 14:47	231140
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 14:47	231140
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/15/2024 14:47	231140
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/15/2024 14:47	231140
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:18	231140
Arsenic	NELAP	0.0010		**0.0022**	mg/L	5	11/16/2024 11:18	231140
Lithium	*	0.0030		**0.0072**	mg/L	5	11/20/2024 10:43	231140
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:18	231140
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/16/2024 11:18	231140
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 12:40	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163

Client: City Water, Light & Power
Work Order: 24110120
Client Project: Ash Pond Monitoring Wells
Report Date: 06-Dec-24
Lab ID: 24110120-016
Client Sample ID: T-1
Matrix: GROUNDWATER
Collection Date: 11/12/2024 12:09

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**512.70**	ft	1	11/12/2024 12:09	R356375
Depth to water	*	-5.00		**13.68**	ft	1	11/12/2024 12:09	R356375
Depth to water from measuring point	*	0		**14.01**	ft	1	11/12/2024 12:09	R356375
Elevation of groundwater surface	*	0		**521.64**	ft	1	11/12/2024 12:09	R356375
Measuring Point Elevation	*	0		**535.65**	ft	1	11/12/2024 12:09	R356375
Measuring Point Height Above Land Surface	*	0		**0.33**	ft	1	11/12/2024 12:09	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**23**	NTU	1	11/12/2024 12:09	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.1**	°F	1	11/12/2024 12:09	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.57**		1	11/12/2024 12:09	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1470**	µmhos/cm @25C	1	11/12/2024 12:09	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1060**	mg/L	2.5	11/15/2024 15:35	R356333
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/14/2024 15:59	R356148
Chloride	NELAP	5.00		**233**	mg/L	10	11/14/2024 15:59	R356148
Sulfate	NELAP	10.0		**224**	mg/L	10	11/14/2024 15:59	R356148
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0707**	mg/L	1	11/15/2024 14:48	231140
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/15/2024 14:48	231140
Boron	NELAP	0.0200		**0.150**	mg/L	1	11/15/2024 14:48	231140
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/15/2024 14:48	231140
Calcium	NELAP	0.100		**172**	mg/L	1	11/15/2024 14:48	231140
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 14:48	231140
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/15/2024 14:48	231140
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/15/2024 14:48	231140
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/15/2024 14:48	231140
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:53	231140
Arsenic	NELAP	0.0010		**0.0019**	mg/L	5	11/16/2024 11:53	231140
Lithium	*	0.0030		**0.0199**	mg/L	5	11/20/2024 10:49	231140
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 11:53	231140
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/16/2024 11:53	231140
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 12:43	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-017 **Client Sample ID:** T-2

Matrix: GROUNDWATER **Collection Date:** 11/13/2024 13:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.18**	ft	1	11/13/2024 13:40	R356375
Depth to water	*	-5.00		**12.83**	ft	1	11/13/2024 13:40	R356375
Depth to water from measuring point	*	0		**15.23**	ft	1	11/13/2024 13:40	R356375
Elevation of groundwater surface	*	0		**534.39**	ft	1	11/13/2024 13:40	R356375
Measuring Point Elevation	*	0		**549.62**	ft	1	11/13/2024 13:40	R356375
Measuring Point Height Above Land Surface	*	0		**2.40**	ft	1	11/13/2024 13:40	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**18**	NTU	1	11/13/2024 13:40	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.5**	°F	1	11/13/2024 13:40	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.54**		1	11/13/2024 13:40	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1870**	µmhos/cm @25C	1	11/13/2024 13:40	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50	H	**1580**	mg/L	2.5	11/21/2024 17:12	R356629
Sample analysis did not meet hold time requirements.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 18:02	R356222
Chloride	NELAP	5.00		**509**	mg/L	10	11/15/2024 18:02	R356222
Sulfate	NELAP	10.0		**142**	mg/L	10	11/15/2024 18:02	R356222
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.225**	mg/L	1	11/18/2024 12:07	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 12:07	231260
Boron	NELAP	0.0200		**0.0507**	mg/L	1	11/18/2024 12:07	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 12:07	231260
Calcium	NELAP	0.100		**211**	mg/L	1	11/18/2024 12:07	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:07	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:07	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 12:07	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 12:07	231260
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 3:00	231194
Arsenic	NELAP	0.0010		**0.0060**	mg/L	5	11/20/2024 3:00	231194
Lithium	*	0.0030		**0.0345**	mg/L	5	11/20/2024 10:43	231194
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 3:00	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 3:00	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 11:58	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-018 **Client Sample ID:** T-4

Matrix: GROUNDWATER **Collection Date:** 11/13/2024 12:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**521.52**	ft	1	11/13/2024 12:07	R356375
Depth to water	*	-5.00		**17.24**	ft	1	11/13/2024 12:07	R356375
Depth to water from measuring point	*	0		**19.62**	ft	1	11/13/2024 12:07	R356375
Elevation of groundwater surface	*	0		**529.32**	ft	1	11/13/2024 12:07	R356375
Measuring Point Elevation	*	0		**548.94**	ft	1	11/13/2024 12:07	R356375
Measuring Point Height Above Land Surface	*	0		**2.38**	ft	1	11/13/2024 12:07	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**32**	NTU	1	11/13/2024 12:07	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.1**	°F	1	11/13/2024 12:07	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.65**		1	11/13/2024 12:07	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**648**	µmhos/cm @25C	1	11/13/2024 12:07	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50	H	**695**	mg/L	2.5	11/21/2024 17:12	R356629
Sample analysis did not meet hold time requirements.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 9:06	R356222
Chloride	NELAP	5.00		**ND**	mg/L	10	11/15/2024 9:06	R356222
Sulfate	NELAP	10.0		**104**	mg/L	10	11/15/2024 9:06	R356222
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0578**	mg/L	1	11/18/2024 12:08	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 12:08	231260
Boron	NELAP	0.0200		**0.0565**	mg/L	1	11/18/2024 12:08	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 12:08	231260
Calcium	NELAP	0.100		**96.8**	mg/L	1	11/18/2024 12:08	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:08	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:08	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 12:08	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 12:08	231260
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 3:48	231194
Arsenic	NELAP	0.0010		**0.0055**	mg/L	5	11/20/2024 3:48	231194
Lithium	*	0.0030		**0.0161**	mg/L	5	11/20/2024 10:49	231194
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 3:48	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 3:48	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 12:00	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-019 **Client Sample ID:** T-5

Matrix: GROUNDWATER **Collection Date:** 11/13/2024 11:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**518.32**	ft	1	11/13/2024 11:35	R356375
Depth to water	*	-5.00		**8.95**	ft	1	11/13/2024 11:35	R356375
Depth to water from measuring point	*	0		**11.46**	ft	1	11/13/2024 11:35	R356375
Elevation of groundwater surface	*	0		**529.20**	ft	1	11/13/2024 11:35	R356375
Measuring Point Elevation	*	0		**540.66**	ft	1	11/13/2024 11:35	R356375
Measuring Point Height Above Land Surface	*	0		**2.51**	ft	1	11/13/2024 11:35	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**10**	NTU	1	11/13/2024 11:35	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.9**	°F	1	11/13/2024 11:35	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.82**		1	11/13/2024 11:35	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**549**	µmhos/cm @25C	1	11/13/2024 11:35	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**382**	mg/L	1	11/19/2024 14:17	R356516
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 9:40	R356222
Chloride	NELAP	5.00		**ND**	mg/L	10	11/15/2024 9:40	R356222
Sulfate	NELAP	10.0		**40.4**	mg/L	10	11/15/2024 9:40	R356222
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0564**	mg/L	1	11/18/2024 12:10	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 12:10	231260
Boron	NELAP	0.0200		**0.0791**	mg/L	1	11/18/2024 12:10	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 12:10	231260
Calcium	NELAP	0.100		**70.3**	mg/L	1	11/18/2024 12:10	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:10	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:10	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 12:10	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 12:10	231260
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 3:54	231194
Arsenic	NELAP	0.0010		**0.0016**	mg/L	5	11/20/2024 3:54	231194
Lithium	*	0.0030		**0.0109**	mg/L	5	11/20/2024 10:54	231194
Selenium	NELAP	0.0010		**0.0012**	mg/L	5	11/20/2024 3:54	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 3:54	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 12:08	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163

Client: City Water, Light & Power **Work Order:** 24110120

Client Project: Ash Pond Monitoring Wells **Report Date:** 06-Dec-24

Lab ID: 24110120-020 **Client Sample ID:** T-6

Matrix: GROUNDWATER **Collection Date:** 11/13/2024 10:37

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**494.70**	ft	1	11/13/2024 10:37	R356375
Depth to water	*	-5.00		**8.66**	ft	1	11/13/2024 10:37	R356375
Depth to water from measuring point	*	0		**11.02**	ft	1	11/13/2024 10:37	R356375
Elevation of groundwater surface	*	0		**527.30**	ft	1	11/13/2024 10:37	R356375
Measuring Point Elevation	*	0		**538.32**	ft	1	11/13/2024 10:37	R356375
Measuring Point Height Above Land Surface	*	0		**2.36**	ft	1	11/13/2024 10:37	R356375
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**14**	NTU	1	11/13/2024 10:37	R356375
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.1**	°F	1	11/13/2024 10:37	R356375
SW-846 9040B								
pH, Field	*	1.00		**6.97**		1	11/13/2024 10:37	R356375
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**869**	µmhos/cm @25C	1	11/13/2024 10:37	R356375
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**595**	mg/L	2.5	11/19/2024 14:07	R356516
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 10:16	R356222
Chloride	NELAP	5.00		**19.4**	mg/L	10	11/15/2024 10:16	R356222
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/15/2024 10:16	R356222
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.306**	mg/L	1	11/18/2024 12:12	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 12:12	231260
Boron	NELAP	0.0200		**0.210**	mg/L	1	11/18/2024 12:12	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 12:12	231260
Calcium	NELAP	0.100		**91.4**	mg/L	1	11/18/2024 12:12	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:12	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:12	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 12:12	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 12:12	231260
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 4:00	231194
Arsenic	NELAP	0.0010		**0.0158**	mg/L	5	11/20/2024 4:00	231194
Lithium	*	0.0030		**0.0134**	mg/L	5	11/20/2024 11:00	231194
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 4:00	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 4:00	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 12:11	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163
Radium-228	*	0		**See Attached**	pci/L	1	12/04/2024 0:00	R357163

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 24110120
Report Date: 06-Dec-24

Carrier: Daniel Crump

Received By: JMD

Completed by: Amber Dilallo
On: 11-Nov-24

Reviewed by: Ellie Hopkins
On: 14-Nov-24

Pages to follow: Chain of custody 6 Extra pages included 62

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 10.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #96651. - JD/amberdilallo - 11/11/2024 4:39:54 PM

Samples were received on 11/12/24 at 15:30 on ice [9.1 - LTG5]. Additional nitric acid (100984) was needed in 1 of 2 containers for AP-10. - MDarling - 11/13/2024 8:38:32 AM

Samples were received on 11/13/24 at 15:45 on ice [10.1C - LTG#5]. pH strip # 96651 - lhenson - 11/14/2024 8:27:05 AM

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24110120

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 10.9 °C 5
Preserved in: [ ] LAB [X] FIELD
LAB NOTES: PO# 96657
FOR LAB USE ONLY
JD 4/11/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Gp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24110120-001	RW-3	11-4-24 1103	Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1	11-11-24 / 1144	Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2	1221	Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3	1255	Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4	1338	Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5	1428	Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6	1027	Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
[signature]	11-11 / 1610	[signature] Dawn	11/11/24 16:10

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24110120

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24110120-012	AP-11		Groundwater	1	2								✔	✔	✔	✔	✔	✔
013	AP-12		Groundwater	1	2								✔	✔	✔	✔	✔	✔
014	AP-13		Groundwater	1	2								✔	✔	✔	✔	✔	✔
015	AP-14		Groundwater	1	2								✔	✔	✔	✔	✔	✔
016	T-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
017	T-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
018	T-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
019	T-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔
020	T-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	11-11-1610	Joelle Davis	11/11/24 16:10

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24110120

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 9.1 °C 5
Preserved in: [x] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: Acid HNO3 (pH<2) to 4P10. 24 Q 0051 mD II 11/13/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Brett Gillihan

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24110120-001	RW-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10	11-12-24 1307	Groundwater	1	2								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	11-12 / 1530	Jodi Davis	11/12/24 15:30

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

MP 11/13

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24110120

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:
*1343 TESTed 11/21/24

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: Bret Gillihan

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24110120-012	AP-11	11-12-24 1001	Groundwater	1	2								✔	✔	✔	✔	✔	✔
013	AP-12	1049	Groundwater	1	2								✔	✔	✔	✔	✔	✔
014	AP-13	1125	Groundwater	1	2								✔	✔	✔	✔	✔	✔
015	AP-14	*1343	Groundwater	1	2								✔	✔	✔	✔	✔	✔
016	T-1	1209	Groundwater	1	2								✔	✔	✔	✔	✔	✔
017	T-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
018	T-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
019	T-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔
020	T-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	11-12/1530	[signature]	11/12/24 15:30

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24110120

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 10.1 °C 5
Preserved in: ☐ LAB ☒ FIELD FOR LAB USE ONLY
LAB NOTES: PWS 94651
LL 11/14/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Brett Gillihan

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl; F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24110120-001	RW-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	AP-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	AP-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	AP-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	AP-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	AP-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	AP-7	11-13-24 1107	Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AP-8	11/13/24 1315	Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AP-9	11-13-24 1230	Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	AP-10		Groundwater	1	2								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
[signature]	11-13-1545	[signature]	11/13/24 1545

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24110120

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

Client Comments:

*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Bret Gillihan

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity								
24110120-012	AP-11		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
013	AP-12		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
014	AP-13		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
015	AP-14		Groundwater	1	2								✔	✔	✔	✔	✔	✔								
016	T-1	~~1209~~	Groundwater	1	2								✔	✔	✔	✔	✔	✔								
017	T-2	11-13-24 1340	Groundwater	1	2								✔	✔	✔	✔	✔	✔								
018	T-4	1207	Groundwater	1	2								✔	✔	✔	✔	✔	✔								
019	T-5	1135	Groundwater	1	2								✔	✔	✔	✔	✔	✔								
020	T-6	1037	Groundwater	1	2								✔	✔	✔	✔	✔	✔								
			Groundwater																							
			Groundwater																							

Relinquished By	Date/Time	Received By	Date/Time
	11-13 1545		11/13/24 1545

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	RW-3
Project Location:	Springfield, IL	**Sample ID:**	001
W.O. Number (s):	24110120	**Date (s):**	11/11/2024

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 56 °F — Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 10:36

Static Water Level: 11.45 feet below TOC

Total Depth: 44.01 feet below TOC

Water Column: 32.56 feet

Purging Activities

Purged By: JC — Purge Date: 11/11/2024

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 32.56 ft. x 0.022 = 0.72 L x 3 Vol. = 2.16 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:37	0.0	173	purge start time						
10:42	0.9	↓	7.12	525.70	14.52	4.56	-168.70	6.48	
10:45	1.4		7.13	532.90	14.51	3.40	-178.00	46.77	
10:48	1.9		7.13	535.30	14.50	2.78	-180.60	90.25	
10:51	2.5		7.13	535.60	14.50	2.41	-181.80	122.85	
10:54	3.0		7.13	535.60	14.47	2.17	-182.50	72.57	
10:57	3.5		7.13	535.40	14.45	1.99	-182.90	112.49	
11:00	4.0		7.13	534.70	14.47	1.87	-183.00	50.61	
11:03	4.5		7.13	531.10	14.90	1.77	-182.40	47.61	

Sampling Activities

Sampled By: JC — Sample Date/Time: 11/11/2024 11:03

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 7.13 pH — 531.10 Spec. Cond. — 14.90 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 15.89 feet below TOC — Drawdown: 4.44 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210771

Form Completed By: Justin Colp — **Date:** 11/11/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-1
Project Location:	Springfield, IL	**Sample ID:**	002
W.O. Number (s):	24110120	**Date (s):**	11/11/2024

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 58 °F Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 11:19

Static Water Level: 10.39 feet below TOC

Total Depth: 31.08 feet below TOC

Water Column: 20.69 feet

Purging Activities

Purged By: JC Purge Date: 11/11/2024

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 20.69 ft. x 0.022 = 0.46 L x 3 Vol. = 1.38 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.50 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:19	0.0	140	purge start time						
11:26	1.0	↓	6.54	1,269.10	15.84	3.49	-82.60	34.54	
11:29	1.4		6.54	1,307.80	15.87	2.83	-98.40	26.67	
11:32	1.8		6.54	1,328.20	15.98	2.43	-105.40	21.37	
11:35	2.2		6.54	1,343.50	16.07	2.16	-108.70	16.20	
11:38	2.7		6.54	1,356.50	16.17	1.97	-111.20	13.42	
11:41	3.1		6.54	1,368.10	16.23	1.83	-112.70	12.88	
11:44	3.5		6.54	1,377.10	16.24	1.72	-113.90	13.14	

Sampling Activities

Sampled By: JC Sample Date/Time: 11/11/2024 11:44

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.54 pH 1,377.10 Spec. Cond. 16.24 Temp

Field Filtered: No Filter Type:

Water Level: 10.51 feet below TOC Drawdown: 0.12 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210771

Form Completed By: Justin Colp **Date:** 11/11/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-2
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	24110120	**Date (s):**	11/11/2024

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 60 °F — Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 11:53

Static Water Level: 6.54 feet below TOC

Total Depth: 21.33 feet below TOC

Water Column: 14.79 feet

Purging Activities

Purged By: JC — Purge Date: 11/11/2024

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 14.79 ft. x 0.022 = 0.33 L x 3 Vol. = 0.99 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:53	0.0	214	purge start time						
12:00	1.5	↓	6.42	1,127.80	16.43	3.88	1.10	31.79	
12:03	2.1		6.41	1,131.40	16.38	3.04	-1.30	24.05	
12:06	2.8		6.41	1,134.90	16.33	2.54	-3.40	16.72	
12:09	3.4		6.41	1,137.30	16.31	2.23	-4.90	13.76	
12:12	4.1		6.41	1,138.80	16.27	2.01	-6.20	10.23	
12:15	4.7		6.41	1,140.60	16.25	1.86	-7.10	7.14	
12:18	5.4		6.41	1,142.00	16.24	1.74	-8.10	5.54	
12:21	6.0		6.41	1,143.30	16.26	1.65	-8.80	6.05	

Sampling Activities

Sampled By: JC — Sample Date/Time: 11/11/2024 12:21

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.41 pH — 1,143.30 Spec. Cond. — 16.26 Temp

Field Filtered: No — Filter Type:

Water Level: 6.61 feet below TOC — Drawdown: 0.07 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210771

Form Completed By: Justin Colp — **Date:** 11/11/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-3
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	24110120	**Date (s):**	11/11/2024

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 61 °F — Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 12:28

Static Water Level: 9.55 feet below TOC

Total Depth: 20.80 feet below TOC

Water Column: 11.25 feet

Purging Activities

Purged By: JC — Purge Date: 11/11/2024

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 11.25 ft. x 0.022 = 0.25 L x 3 Vol. = 0.75 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:28	0.0	167	purge start time						
12:34	1.0	↓	6.50	1,066.10	17.84	4.02	-61.30	48.34	
12:37	1.5		6.48	1,069.40	18.11	3.05	-59.80	33.02	
12:40	2.0		6.48	1,071.90	18.13	2.53	-63.60	25.25	
12:43	2.5		6.48	1,070.90	18.15	2.22	-64.90	18.80	
12:46	3.0		6.48	1,071.00	18.21	2.01	-66.80	13.00	
12:49	3.5		6.48	1,071.60	18.13	1.86	-68.90	9.95	
12:52	4.0		6.48	1,070.80	18.09	1.75	-70.90	7.60	
12:55	4.5		6.48	1,070.20	18.19	1.66	-72.60	5.70	

Sampling Activities

Sampled By: JC — Sample Date/Time: 11/11/2024 12:55

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.48 pH — 1,070.20 Spec. Cond. — 18.19 Temp

Field Filtered: No — Filter Type:

Water Level: 9.55 feet below TOC — Drawdown: 0.00 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210771

Form Completed By: Justin Colp — **Date:** 11/11/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-4
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	24110120	**Date (s):**	11/11/2024

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 61 °F Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 13:10

Static Water Level: 10.91 feet below TOC

Total Depth: 60.41 feet below TOC

Water Column: 49.50 feet

Purging Activities

Purged By: JC Purge Date: 11/11/2024

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 49.5 ft. x 0.022 = 1.09 L x 3 Vol. = 3.27 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:11	0.0	222	purge start time						
13:20	2.0	↓	6.81	681.40	17.79	3.86	-117.30	10.74	
13:23	2.7		6.81	683.50	17.73	3.06	-124.10	11.13	
13:26	3.3		6.82	684.40	17.70	2.55	-128.20	12.26	
13:29	4.0		6.82	686.00	17.61	2.22	-130.50	12.81	
13:32	4.7		6.82	687.30	17.58	1.99	-131.90	12.48	
13:35	5.3		6.82	687.80	17.56	1.83	-132.90	13.25	
13:38	6.0		6.82	688.10	17.53	1.71	-133.50	12.90	

Sampling Activities

Sampled By: JC Sample Date/Time: 11/11/2024 13:38

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.82 pH 688.10 Spec. Cond. 17.53 Temp

Field Filtered: No Filter Type:

Water Level: 11.09 feet below TOC Drawdown: 0.18 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210771

Form Completed By: Justin Colp **Date:** 11/11/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-5
Project Location:	Springfield, IL	**Sample ID:**	006
W.O. Number (s):	24110120	**Date (s):**	11/11/2024

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 62 °F — Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 13:52

Static Water Level: 16.28 feet below TOC

Total Depth: 31.27 feet below TOC

Water Column: 14.99 feet

Purging Activities

Purged By: JC — Purge Date: 11/11/2024

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 14.99 ft. x 0.022 = 0.33 L x 3 Vol. = 0.99 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:53	0.0	171	purge start time						
14:01	1.4	↓	6.95	560.40	14.92	5.12	16.00	3.62	
14:04	1.9		6.93	563.50	14.84	4.41	21.90	3.94	
14:07	2.4		6.92	565.40	14.82	3.90	26.70	3.71	
14:10	3.0		6.92	566.90	14.81	3.55	30.90	3.68	
14:13	3.5		6.91	567.90	14.79	3.31	34.80	3.91	
14:16	4.0		6.91	568.60	14.81	3.11	38.00	4.72	
14:19	4.5		6.91	569.00	14.81	2.97	40.80	5.23	
14:22	5.0		6.91	569.30	14.77	2.85	43.10	5.53	
14:25	5.5		6.91	569.20	14.75	2.75	45.20	5.69	
14:28	6.0		6.90	569.40	14.73	2.68	47.10	7.95	

Sampling Activities

Sampled By: JC — Sample Date/Time: 11/11/2024 14:28

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.90 pH — 569.40 Spec. Cond. — 14.73 Temp

Field Filtered: No — Filter Type:

Water Level: 17.51 feet below TOC — Drawdown: 1.23 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210771

Form Completed By: Justin Colp — **Date:** 11/11/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-6
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	24110120	**Date (s):**	11/11/2024

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 54 °F — Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 9:53

Static Water Level: 9.81 feet below TOC

Total Depth: 39.62 feet below TOC

Water Column: 29.81 feet

Purging Activities

Purged By: JC — Purge Date: 11/11/2024

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 29.81 ft. x 0.022 = 0.66 L x 3 Vol. = 1.98 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:54	0.0	152	purge start time						
10:00	1.0	↓	6.94	559.70	14.34	4.83	-126.70	19.66	
10:03	1.4		6.96	559.30	14.54	3.83	-128.70	40.45	
10:06	1.9		6.97	559.40	14.80	3.29	-127.40	48.92	
10:09	2.3		6.98	559.10	14.87	2.94	-124.90	39.08	
10:12	2.8		6.98	558.90	14.93	2.69	-123.30	41.40	
10:15	3.2		6.99	558.00	14.95	2.48	-122.00	40.96	
10:18	3.7		6.99	558.10	14.97	2.32	-120.90	60.40	
10:21	4.1		6.99	558.00	14.98	2.18	-119.80	43.02	
10:24	4.6		7.00	557.50	14.98	2.06	-118.70	40.71	
10:27	5.0		7.00	557.40	15.09	1.96	-117.40	46.15	

Sampling Activities

Sampled By: JC — Sample Date/Time: 11/11/2024 10:27

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 7.00 pH — 557.40 Spec. Cond. — 15.09 Temp

Field Filtered: No — Filter Type:

Water Level: 15.35 feet below TOC — Drawdown: 5.54 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210771

Form Completed By: Justin Colp — **Date:** 11/11/2024

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 24110120
Monitoring Point: AP-7
Sample ID: 008
Date (s): 11/13/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 53 °F
Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW
Precipitation: ☑ None ☐ Light ☐ Heavy
Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 10:47
Static Water Level: 12.44 feet below TOC
Total Depth: 42.52 feet below TOC
Water Column: 30.08 feet

Purging Activities

Purged By: BG
Purge Date: 11/13/2024
Purge Method: Bladder Pump
Well Diameter: 2"
Purge Volume Calculation (L): 30.08 ft. x 0.022 = 0.66 L x 3 Vol. = 1.98 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Clear
Odor: None
Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:47	0.0	300	purge start time						
10:52	1.5	↓	7.31	711.40	13.46	1.34	-87.00	12.06	
10:55	2.4		7.22	748.70	13.77	0.95	-105.20	152.78	
10:58	3.3		7.19	765.90	13.83	0.87	-117.50	16.64	
11:01	4.2		7.18	771.50	13.87	0.77	-125.10	18.78	
11:04	5.1		7.17	775.00	13.73	0.69	-130.40	47.72	
11:07	6.0		7.17	774.30	13.70	0.64	-134.40	55.07	

Sampling Activities

Sampled By: BG
Sample Date/Time: 11/13/2024 11:07
Sample Method: Low Flow
Sample Equipment: Bladder Pump
Sample Parameters: 7.17 pH 774.30 Spec. Cond. 13.70 Temp
Field Filtered: No Filter Type:
Water Level: 12.89 feet below TOC
Drawdown: 0.45 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan
Date: 11/13/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-8
Project Location:	Springfield, IL	**Sample ID:**	009
W.O. Number (s):	24110120	**Date (s):**	11/13/2024

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 49 °F Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 12:55

Static Water Level: 7.32 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 32.28 feet

Purging Activities

Purged By: TC Purge Date: 11/13/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 32.28 ft. x 0.022 = 0.71 L x 3 Vol. = 2.13 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:55	0.0	300	purge start time						
13:03	2.4	↓	6.79	733.30	14.12	1.20	-155.50	3.49	
13:06	3.3		6.79	733.60	14.08	0.94	-159.80	3.00	
13:09	4.2		6.78	733.40	14.09	0.81	-161.10	5.05	
13:12	5.1		6.78	733.30	14.10	0.74	-161.90	8.64	
13:15	6.0		6.78	733.20	14.07	0.69	-162.70	11.93	

Sampling Activities

Sampled By: TC Sample Date/Time: 11/13/2024 13:15

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.78 pH 733.20 Spec. Cond. 14.07 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 7.65 feet below TOC Drawdown: 0.33 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45720

Form Completed By: Tracy Carroll **Date:** 11/13/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-9
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	24110120	**Date (s):**	11/13/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 58 °F Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 12:17

Static Water Level: 13.23 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 26.37 feet

Purging Activities

Purged By: BG Purge Date: 11/13/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 26.37 ft. x 0.022 = 0.58 L x 3 Vol. = 1.74 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear Odor: Slight Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:17	0.0	346	purge start time						
12:21	1.4	↓	6.80	969.80	14.66	2.46	-31.70	10.41	
12:24	2.4		6.80	964.80	14.77	2.34	-52.80	5.50	
12:27	3.5		6.80	968.30	14.83	2.18	-61.60	4.90	
12:30	4.5		6.80	968.20	14.86	1.77	-67.20	8.30	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2024 12:30

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.80 pH 968.20 Spec. Cond. 14.86 Temp

Field Filtered: No Filter Type:

Water Level: 13.62 feet below TOC Drawdown: 0.39 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/13/2024

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 24110120
Monitoring Point: AP-10
Sample ID: 011
Date (s): 11/12/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 53 °F
Wind Direction: ☐ N ☐ S ☑ W ☐ E ☐ SE ☐ SW ☐ NE ☐ NW
Precipitation: ☑ None ☐ Light ☐ Heavy
Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/12/2024 12:48
Static Water Level: 5.59 feet below TOC
Total Depth: 38.07 feet below TOC
Water Column: 32.48 feet

Purging Activities

Purged By: BG Purge Date: 11/12/2024
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 32.48 ft. x 0.022 = 0.71 L x 3 Vol. = 2.13 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Clear Odor: Slight Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:48	0.0	316	purge start time						
12:52	1.3	↓	6.88	1,154.40	13.84	1.87	-91.80	6.65	
12:55	2.2		6.79	1,152.30	13.93	1.57	-89.20	5.80	
12:58	3.2		6.76	1,152.90	13.91	1.45	-88.40	4.83	
13:01	4.1		6.75	1,152.60	13.92	1.39	-87.40	4.48	
13:04	5.1		6.74	1,154.10	13.92	1.21	-88.10	4.32	
13:07	6.0		6.73	1,152.60	13.96	1.18	-88.70	4.17	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/12/2024 13:07
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.73 pH 1,152.60 Spec. Cond. 13.96 Temp
Field Filtered: No Filter Type:
Water Level: 5.96 feet below TOC Drawdown: 0.37 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/12/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-11
Project Location:	Springfield, IL	**Sample ID:**	012
W.O. Number (s):	24110120	**Date (s):**	11/12/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 46 °F Wind Direction: ☐ N ☐ S ☑ W ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/12/2024 9:42

Static Water Level: 15.43 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 7.52 feet

Purging Activities

Purged By: BG Purge Date: 11/12/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.52 ft. x 0.022 = 0.17 L x 3 Vol. = 0.51 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: Moderate Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:42	0.0	263	purge start time						
9:49	1.8	↓	6.98	960.80	13.91	2.87	-75.70	9.56	
9:52	2.6		6.83	959.50	14.03	2.38	-69.00	6.33	
9:55	3.4		6.74	959.00	14.16	2.08	-61.90	5.02	
9:58	4.2		6.69	958.40	14.20	1.91	-56.20	4.41	
10:01	5.0		6.66	958.40	14.28	1.75	-52.10	4.11	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/12/2024 10:01

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.66 pH 958.40 Spec. Cond. 14.28 Temp

Field Filtered: No Filter Type:

Water Level: 15.78 feet below TOC Drawdown: 0.35 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/12/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-12
Project Location:	Springfield, IL	**Sample ID:**	013
W.O. Number (s):	24110120	**Date (s):**	11/12/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 47 °F Wind Direction: ☐ N ☐ S ☑ W ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/12/2024 10:32

Static Water Level: 17.92 feet below TOC

Total Depth: 30.40 feet below TOC

Water Column: 12.48 feet

Purging Activities

Purged By: BG Purge Date: 11/12/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 12.48 ft. x 0.022 = 0.27 L x 3 Vol. = 0.81 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear Odor: Moderate Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:32	0.0	265	purge start time						
10:37	1.4	↓	6.71	1,546.30	13.57	1.75	-87.40	21.96	
10:40	2.2		6.63	1,552.80	13.68	1.50	-88.30	21.69	
10:43	3.0		6.61	1,556.30	13.67	1.36	-89.00	22.15	
10:46	3.8		6.60	1,556.60	13.64	1.25	-89.10	22.86	
10:49	4.5		6.59	1,554.80	13.67	1.19	-88.30	25.61	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/12/2024 10:49

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.59 pH 1,554.80 Spec. Cond. 13.67 Temp

Field Filtered: No Filter Type:

Water Level: 18.14 feet below TOC Drawdown: 0.22 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/12/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-13
Project Location:	Springfield, IL	**Sample ID:**	014
W.O. Number (s):	24110120	**Date (s):**	11/12/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 51 °F Wind Direction: ☐ N ☐ S ☑ W ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/12/2024 11:01

Static Water Level: 19.40 feet below TOC

Total Depth: 31.00 feet below TOC

Water Column: 11.60 feet

Purging Activities

Purged By: BG Purge Date: 11/12/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 11.6 ft. x 0.022 = 0.26 L x 3 Vol. = 0.78 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: Strong Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:01	0.0	208	purge start time						
11:13	2.6	↓	6.71	777.40	13.10	1.30	-95.90	16.55	
11:16	3.2		6.70	776.60	13.17	1.24	-96.80	11.82	
11:19	3.8		6.69	776.60	13.22	1.20	-97.10	9.99	
11:22	4.5		6.68	776.30	13.23	1.16	-96.40	10.64	
11:25	5.1		6.67	776.10	13.20	1.12	-95.10	7.29	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/12/2024 11:25

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.67 pH 776.10 Spec. Cond. 13.20 Temp

Field Filtered: No Filter Type:

Water Level: 19.49 feet below TOC Drawdown: 0.09 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/12/2024

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 24110120
Monitoring Point: AP-14
Sample ID: 015
Date (s): 11/12/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 54 °F
Wind Direction: ☐ N ☐ S ☑ W ☐ E ☐ SE ☐ SW ☐ NE ☐ NW
Precipitation: ☑ None ☐ Light ☐ Heavy
Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/12/2024 13:23
Static Water Level: 4.64 feet below TOC
Total Depth: 31.20 feet below TOC
Water Column: 26.56 feet

Purging Activities

Purged By: 54
Purge Date: 11/12/2024
Purge Method: Peristaltic Pump
Well Diameter: 2"
Purge Volume Calculation (L): 26.56 ft. x 0.022 = 0.58 L x 3 Vol. = 1.74 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Clear
Odor: None
Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:23	0.0	75	purge start time						
13:28	0.4	↓	6.99	1,752.50	13.64	2.88	-45.90	15.14	
13:31	0.6		6.97	1,747.60	13.56	2.40	-41.10	39.05	
13:34	0.9		6.95	1,744.50	13.55	2.13	-39.00	143.38	
13:37	1.1		6.94	1,745.20	13.55	1.95	-38.10	11.17	
13:40	1.3		6.94	1,746.10	13.48	1.86	-37.60	9.13	
13:43	1.5		6.93	1,744.20	13.45	1.73	-37.40	8.02	

Sampling Activities

Sampled By: BG
Sample Date/Time: 11/12/2024 13:43
Sample Method: Low Flow
Sample Equipment: Peristaltic Pump
Sample Parameters: 6.93 pH 1,744.20 Spec. Cond. 13.45 Temp
Field Filtered: No Filter Type:
Water Level: 5.21 feet below TOC
Drawdown: 0.57 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan
Date: 11/12/2024

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 24110120
Monitoring Point: T-1
Sample ID: 016
Date (s): 11/12/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 51 °F
Wind Direction: ☐ N ☐ S ☑ W ☐ E ☐ SE ☐ SW ☐ NE ☐ NW
Precipitation: ☑ None ☐ Light ☐ Heavy
Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/12/2024 11:37
Static Water Level: 14.01 feet below TOC
Total Depth: 22.95 feet below TOC
Water Column: 8.94 feet

Purging Activities

Purged By: BG
Purge Date: 11/12/2024
Purge Method: Peristaltic Pump
Well Diameter: 2"
Purge Volume Calculation (L): 8.94 ft. x 0.022 = 0.2 L x 3 Vol. = 0.6 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.50 L
Physical appearance of purge water: Clear
Odor: Slight
Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:37	0.0	141	purge start time						
11:54	2.4	↓	6.57	1,463.40	13.80	1.39	-1.60	21.72	
11:57	2.8		6.57	1,464.20	13.79	1.31	-5.60	17.93	
12:00	3.2		6.57	1,464.00	13.82	1.27	-8.50	19.93	
12:03	3.7		6.57	1,467.00	13.83	1.34	-8.70	21.43	
12:06	4.1		6.57	1,469.00	13.87	1.34	-8.70	20.67	
12:09	4.5		6.57	1,468.80	13.93	1.32	-8.50	23.17	

Sampling Activities

Sampled By: BG
Sample Date/Time: 11/12/2024 12:09
Sample Method: Low Flow
Sample Equipment: Peristaltic Pump
Sample Parameters: 6.57 pH 1,468.80 Spec. Cond. 13.93 Temp
Field Filtered: No Filter Type:
Water Level: 14.37 feet below TOC
Drawdown: 0.36 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/12/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-2
Project Location:	Springfield, IL	**Sample ID:**	017
W.O. Number (s):	24110120	**Date (s):**	11/113/24

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 58 °F Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 13:17

Static Water Level: 15.23 feet below TOC

Total Depth: 34.44 feet below TOC

Water Column: 19.21 feet

Purging Activities

Purged By: BG Purge Date: 11/113/24

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 19.21 ft. x 0.022 = 0.42 L x 3 Vol. = 1.26 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.50 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:17	0.0	152	purge start time						
13:28	1.7	↓	6.57	1,878.50	13.27	1.72	-34.80	23.07	
13:31	2.1		6.56	1,874.10	13.09	1.43	-35.10	20.38	
13:34	2.6		6.55	1,870.40	13.02	1.30	-36.00	20.18	
13:37	3.0		6.55	1,871.80	13.02	1.24	-36.70	21.93	
13:40	3.5		6.54	1,874.80	13.05	1.20	-36.70	18.34	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2024 13:40

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.54 pH 1,874.80 Spec. Cond. 13.05 Temp

Field Filtered: No Filter Type:

Water Level: 15.73 feet below TOC Drawdown: 0.50 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/13/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-4
Project Location:	Springfield, IL	**Sample ID:**	018
W.O. Number (s):	24110120	**Date (s):**	11/13/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 56 °F Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 11:43

Static Water Level: 19.62 feet below TOC

Total Depth: 27.42 feet below TOC

Water Column: 7.80 feet

Purging Activities

Purged By: BG Purge Date: 11/13/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.8 ft. x 0.022 = 0.17 L x 3 Vol. = 0.51 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:43	0.0	167	purge start time						
11:55	2.0	↓	6.70	650.20	14.40	1.41	-1.30	43.33	
11:58	2.5		6.67	649.10	14.37	1.45	6.20	44.30	
12:01	3.0		6.65	648.90	14.54	1.48	11.60	39.93	
12:04	3.5		6.65	649.90	14.57	1.45	15.50	34.46	
12:07	4.0		6.65	648.30	14.51	1.42	18.50	32.39	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2024 12:07

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.65 pH 648.30 Spec. Cond. 14.51 Temp

Field Filtered: No Filter Type:

Water Level: 20.42 feet below TOC Drawdown: 0.80 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/13/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-5
Project Location:	Springfield, IL	**Sample ID:**	019
W.O. Number (s):	24110120	**Date (s):**	11/13/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 56 °F Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 11:13

Static Water Level: 11.46 feet below TOC

Total Depth: 22.34 feet below TOC

Water Column: 10.88 feet

Purging Activities

Purged By: BG Purge Date: 11/13/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 10.88 ft. x 0.022 = 0.24 L x 3 Vol. = 0.72 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:13	0.0	182	purge start time						
11:23	1.9	↓	6.88	570.50	15.02	2.44	-28.80	39.93	
11:26	2.4		6.86	557.00	15.35	2.33	-22.50	22.88	
11:29	2.9		6.84	551.80	15.42	2.29	-16.60	15.29	
11:32	3.5		6.83	549.80	15.44	2.25	-11.40	11.52	
11:35	4.0		6.82	548.60	15.52	2.21	-6.80	10.43	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2024 11:35

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.82 pH 548.60 Spec. Cond. 15.52 Temp

Field Filtered: No Filter Type:

Water Level: 11.86 feet below TOC Drawdown: 0.40 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/13/2024

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-6
Project Location:	Springfield, IL	**Sample ID:**	020
W.O. Number (s):	24110120	**Date (s):**	11/13/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 52 °F Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 10:16

Static Water Level: 11.02 feet below TOC

Total Depth: 52.00 feet below TOC

Water Column: 40.98 feet

Purging Activities

Purged By: BG Purge Date: 11/13/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 40.98 ft. x 0.022 = 0.9 L x 3 Vol. = 2.7 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:16	0.0	214	purge start time						
10:25	1.9	↓	7.19	876.30	14.43	1.67	-110.70	15.38	
10:28	2.6		7.08	874.80	14.82	1.62	-113.10	16.26	
10:31	3.2		7.02	872.10	14.59	1.34	-114.50	7.87	
10:34	3.9		6.99	868.80	14.41	1.16	-115.80	22.88	
10:37	4.5		6.97	868.80	14.51	1.10	-117.10	14.37	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2024 10:37

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.97 pH 868.80 Spec. Cond. 14.51 Temp

Field Filtered: No Filter Type:

Water Level: 11.34 feet below TOC Drawdown: 0.32 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/13/2024

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

December 05, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24110120

Order No.: 24111575

Dear Shelly Hennessy:

Summit Environmental Technologies, Inc. received 20 sample(s) on 11/20/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **24111575**
Date: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120

WorkOrder Narrative:
24111575: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24111575**
Date: **12/5/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **24111575**

05-Dec-24

CLIENT: TEKLAB Inc,
Project: 24110120

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24111575-001	24110120-001		11/11/2024 11:03:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-002	24110120-002		11/11/2024 11:44:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-003	24110120-003		11/11/2024 12:21:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-004	24110120-004		11/11/2024 12:55:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-005	24110120-005		11/11/2024 1:38:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-006	24110120-006		11/11/2024 2:28:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-007	24110120-007		11/11/2024 10:27:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-008	24110120-008		11/13/2024 11:07:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-009	24110120-009		11/13/2024 1:15:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-010	24110120-010		11/13/2024 12:30:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-011	24110120-011		11/12/2024 1:07:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-012	24110120-012		11/12/2024 10:01:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-013	24110120-013		11/12/2024 10:49:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-014	24110120-014		11/12/2024 11:25:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-015	24110120-015		11/12/2024 1:49:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-016	24110120-016		11/12/2024 12:09:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-017	24110120-017		11/13/2024 1:40:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-018	24110120-018		11/13/2024 12:07:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-019	24110120-019		11/13/2024 11:35:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111575-020	24110120-020		11/13/2024 10:37:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water

Summit Environmental Technologies, Inc.
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Website: http://www.settek.com

DATES REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24111575-001A	24110120-001	11/11/2024 11:03:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-002A	24110120-002	11/11/2024 11:44:00 AM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-003A	24110120-003	11/11/2024 12:21:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-004A	24110120-004	11/11/2024 12:55:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-005A	24110120-005	11/11/2024 1:38:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-006A	24110120-006	11/11/2024 2:28:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-007A	24110120-007	11/11/2024 10:27:00 AM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-008A	24110120-008	11/13/2024 11:07:00 AM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-009A	24110120-009	11/13/2024 1:15:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-010A	24110120-010	11/13/2024 12:30:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-011A	24110120-011	11/12/2024 1:07:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111575-012A	24110120-012	11/12/2024 10:01:00 AM		Radium-226 (EPA 903.0)		11/26/2024 1:09:00 PM	12/5/2024 9:34:00 AM

Original

Summit Environmental Technologies, Inc.
3310 Win St.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,

Project: 24110120

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24111575-012A	24110120-012	11/12/2024 10:01:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		11/26/2024 1:09:00 PM	12/4/2024 2:33:00 PM
24111575-013A	24110120-013	11/12/2024 10:49:00 AM		Radium-226 (EPA 903.0)		11/22/2024 11:34:00 AM	11/29/2024 9:41:00 AM
				Radium-228 (EPA 904.0)		11/22/2024 11:34:00 AM	11/27/2024 2:09:00 PM
24111575-014A	24110120-014	11/12/2024 11:25:00 AM		Radium-226 (EPA 903.0)		11/26/2024 1:09:00 PM	12/5/2024 9:34:00 AM
				Radium-228 (EPA 904.0)		11/26/2024 1:09:00 PM	12/4/2024 2:33:00 PM
24111575-015A	24110120-015	11/12/2024 1:49:00 PM		Radium-226 (EPA 903.0)		11/26/2024 1:09:00 PM	12/5/2024 9:34:00 AM
				Radium-228 (EPA 904.0)		11/26/2024 1:09:00 PM	12/4/2024 2:33:00 PM
24111575-016A	24110120-016	11/12/2024 12:09:00 PM		Radium-226 (EPA 903.0)		11/26/2024 1:09:00 PM	12/5/2024 9:34:00 AM
				Radium-228 (EPA 904.0)		11/26/2024 1:09:00 PM	12/4/2024 2:33:00 PM
24111575-017A	24110120-017	11/13/2024 1:40:00 PM		Radium-226 (EPA 903.0)		11/26/2024 1:09:00 PM	12/5/2024 9:34:00 AM
				Radium-228 (EPA 904.0)		11/26/2024 1:09:00 PM	12/4/2024 2:33:00 PM
24111575-018A	24110120-018	11/13/2024 12:07:00 PM		Radium-226 (EPA 903.0)		11/26/2024 1:09:00 PM	12/5/2024 9:34:00 AM
				Radium-228 (EPA 904.0)		11/26/2024 1:09:00 PM	12/4/2024 2:33:00 PM
24111575-019A	24110120-019	11/13/2024 11:35:00 AM		Radium-226 (EPA 903.0)		11/26/2024 1:09:00 PM	12/5/2024 9:34:00 AM
				Radium-228 (EPA 904.0)		11/26/2024 1:09:00 PM	12/4/2024 2:33:00 PM
24111575-020A	24110120-020	11/13/2024 10:37:00 AM		Radium-226 (EPA 903.0)		11/26/2024 1:09:00 PM	12/5/2024 9:34:00 AM
				Radium-228 (EPA 904.0)		11/26/2024 1:09:00 PM	12/4/2024 2:33:00 PM

Original

Summit Environmental Technologies, Inc.
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Collection Date: 11/11/2024 11:03:00 AM
Project: 24110120
Lab ID: 24111575-001
Matrix: NON-POTABLE WATER
Client Sample ID: 24110120-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.100	1	12/4/2024 9:31:52 AM
Yield	1.00					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	1.23	1.00		pCi/L	± 0.650	1	12/3/2024 4:29:04 PM
Yield	0.980					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
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Analytical Report

(consolidated)

WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-002
Client Sample ID: 24110120-002

Collection Date: 11/11/2024 11:44:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.130	1	12/4/2024 9:31:52 AM
Yield	0.980					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	1.00		pCi/L	± 0.490	1	12/3/2024 4:29:04 PM
Yield	0.930					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-003
Client Sample ID: 24110120-003

Collection Date: 11/11/2024 12:21:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	12/4/2024 9:31:52 AM
Yield	1.00					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	1.00		pCi/L	± 0.450	1	12/3/2024 4:29:04 PM
Yield	0.990					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 11/11/2024 12:55:00 PM

Project: 24110120

Lab ID: 24111575-004

Matrix: NON-POTABLE WATER

Client Sample ID: 24110120-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	12/4/2024 9:31:52 AM
Yield	0.810					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	1.00		pCi/L	± 0.630	1	12/3/2024 4:29:04 PM
Yield	0.780					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-005
Client Sample ID: 24110120-005

Collection Date: 11/11/2024 1:38:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.120	1	12/4/2024 9:31:52 AM
Yield	0.990					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	1.00		pCi/L	± 0.710	1	12/3/2024 4:29:04 PM
Yield	0.860					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-006
Client Sample ID: 24110120-006

Collection Date: 11/11/2024 2:28:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	12/4/2024 9:31:52 AM
Yield	1.00					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	1.00		pCi/L	± 0.590	1	12/3/2024 4:29:04 PM
Yield	0.990					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Collection Date: 11/11/2024 10:27:00 AM
Project: 24110120
Lab ID: 24111575-007
Matrix: NON-POTABLE WATER
Client Sample ID: 24110120-007

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	12/4/2024 9:31:52 AM
Yield	0.980					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	1.00		pCi/L	± 0.520	1	12/3/2024 4:29:04 PM
Yield	1.00					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-008
Client Sample ID: 24110120-008

Collection Date: 11/13/2024 11:07:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.100	1	12/4/2024 9:31:52 AM
Yield	1.00					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	1.00		pCi/L	± 0.660	1	12/3/2024 4:29:04 PM
Yield	0.880					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-009
Client Sample ID: 24110120-009

Collection Date: 11/13/2024 1:15:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	1.05	1.00		pCi/L	± 0.200	1	12/4/2024 9:31:52 AM
Yield	0.970					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	1.52	1.00		pCi/L	± 0.770	1	12/3/2024 4:29:04 PM
Yield	0.930					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2024 12:30:00 PM
Project: 24110120
Lab ID: 24111575-010
Matrix: NON-POTABLE WATER
Client Sample ID: 24110120-010

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.130	1	12/4/2024 9:31:52 AM
Yield	0.980					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	1.01	1.00		pCi/L	± 0.670	1	12/3/2024 4:29:04 PM
Yield	0.960					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Collection Date: 11/12/2024 1:07:00 PM
Project: 24110120
Lab ID: 24111575-011
Matrix: NON-POTABLE WATER
Client Sample ID: 24110120-011

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.210	1	12/4/2024 9:31:52 AM
Yield	0.790					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	1.61	1.00		pCi/L	± 0.870	1	12/3/2024 4:29:04 PM
Yield	0.770					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-012
Client Sample ID: 24110120-012

Collection Date: 11/12/2024 10:01:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	12/5/2024 9:34:00 AM
Yield	1.00					1	12/5/2024 9:34:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.340	1	12/4/2024 2:33:00 PM
Yield	1.00					1	12/4/2024 2:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-013
Client Sample ID: 24110120-013

Collection Date: 11/12/2024 10:49:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	11/29/2024 9:41:00 AM
Yield	0.970					1	11/29/2024 9:41:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.340	1	11/27/2024 2:09:00 PM
Yield	0.960					1	11/27/2024 2:09:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 11/12/2024 11:25:00 AM

Project: 24110120

Lab ID: 24111575-014

Matrix: NON-POTABLE WATER

Client Sample ID: 24110120-014

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.0500	1	12/5/2024 9:34:00 AM
Yield	1.00					1	12/5/2024 9:34:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.390	1	12/4/2024 2:33:00 PM
Yield	0.900					1	12/4/2024 2:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 11/12/2024 1:49:00 PM

Project: 24110120

Lab ID: 24111575-015

Matrix: NON-POTABLE WATER

Client Sample ID: 24110120-015

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	12/5/2024 9:34:00 AM
Yield	1.00					1	12/5/2024 9:34:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.390	1	12/4/2024 2:33:00 PM
Yield	1.00					1	12/4/2024 2:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 11/12/2024 12:09:00 PM

Project: 24110120

Lab ID: 24111575-016

Matrix: NON-POTABLE WATER

Client Sample ID: 24110120-016

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.110	1	12/5/2024 9:34:00 AM
Yield	1.00					1	12/5/2024 9:34:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.340	1	12/4/2024 2:33:00 PM
Yield	1.00					1	12/4/2024 2:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-017
Client Sample ID: 24110120-017

Collection Date: 11/13/2024 1:40:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.100	1	12/5/2024 9:34:00 AM
Yield	1.00					1	12/5/2024 9:34:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.380	1	12/4/2024 2:33:00 PM
Yield	0.990					1	12/4/2024 2:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-018
Client Sample ID: 24110120-018

Collection Date: 11/13/2024 12:07:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	12/5/2024 9:34:00 AM
Yield	1.00					1	12/5/2024 9:34:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.400	1	12/4/2024 2:33:00 PM
Yield	1.00					1	12/4/2024 2:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 11/13/2024 11:35:00 AM

Project: 24110120

Lab ID: 24111575-019

Matrix: NON-POTABLE WATER

Client Sample ID: 24110120-019

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	12/5/2024 9:34:00 AM
Yield	1.00					1	12/5/2024 9:34:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.00		pCi/L	± 0.390	1	12/4/2024 2:33:00 PM
Yield	1.00					1	12/4/2024 2:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **24111575**

Date Reported: **12/5/2024**

CLIENT: TEKLAB Inc,
Project: 24110120
Lab ID: 24111575-020
Client Sample ID: 24110120-020

Collection Date: 11/13/2024 10:37:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.110	1	12/5/2024 9:34:00 AM
Yield	1.00					1	12/5/2024 9:34:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	1.08	1.00		pCi/L	± 0.450	1	12/4/2024 2:33:00 PM
Yield	1.00					1	12/4/2024 2:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80532**

Sample ID: **MB-80532** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/26/2024** RunNo: **198234**
Client ID: **BatchQC** Batch ID: **80532** TestNo: **E904.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5359799**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-80532** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/26/2024** RunNo: **198234**
Client ID: **BatchQC** Batch ID: **80532** TestNo: **E904.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5359800**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.06	1.00	5.000	0	61.2	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-80532** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/26/2024** RunNo: **198234**
Client ID: **BatchQC** Batch ID: **80532** TestNo: **E904.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5359801**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.45	1.00	5.000	0	69.0	50	130	3.060	12.0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80532**

Sample ID: **24111631-001EDUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/26/2024** RunNo: **198234**
Client ID: **BatchQC** Batch ID: **80532** TestNo: **E904.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5359814**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80532**

Sample ID: **MB-80532**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/26/2024**	RunNo: **198237**
Client ID: **BatchQC**	Batch ID: **80532**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/5/2024**	SeqNo: **5359889**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-80532**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/26/2024**	RunNo: **198237**
Client ID: **BatchQC**	Batch ID: **80532**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/5/2024**	SeqNo: **5359890**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	3.53	1.00	5.000	0	70.6	70	130				QLR

Sample ID: **LCSD-80532**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/26/2024**	RunNo: **198237**
Client ID: **BatchQC**	Batch ID: **80532**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/5/2024**	SeqNo: **5359891**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.98	1.00	5.000	0	99.6	70	130	3.530	34.1	20	R

Sample ID: **24111631-001EDUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/26/2024**	RunNo: **198237**
Client ID: **BatchQC**	Batch ID: **80532**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/5/2024**	SeqNo: **5359904**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80532**

Sample ID: **24111631-001EDUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/26/2024** RunNo: **198237**
Client ID: **BatchQC** Batch ID: **80532** TestNo: **E903.0** **E903-904** Analysis Date: **12/5/2024** SeqNo: **5359904**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80533**

Sample ID: **MB-80533** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197941**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E904.0** **E903-904** Analysis Date: **11/27/2024** SeqNo: **5352672**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-80533** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197941**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E904.0** **E903-904** Analysis Date: **11/27/2024** SeqNo: **5352673**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.41	1.00	5.000	0	68.2	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-80533** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197941**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E904.0** **E903-904** Analysis Date: **11/27/2024** SeqNo: **5352674**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.37	1.00	5.000	0	67.4	50	130	3.410	1.18	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80533**

Sample ID: **24111225-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197941**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E904.0** **E903-904** Analysis Date: **11/27/2024** SeqNo: **5352689**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **24111363-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197941**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E904.0** **E903-904** Analysis Date: **11/27/2024** SeqNo: **5352692**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.11	1.00		0	0			0.9300	17.6	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80533**

Sample ID: **MB-80533**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/22/2024**	RunNo: **197943**
Client ID: **BatchQC**	Batch ID: **80533**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/29/2024**	SeqNo: **5352721**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-80533**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/22/2024**	RunNo: **197943**
Client ID: **BatchQC**	Batch ID: **80533**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/29/2024**	SeqNo: **5352722**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.06	1.00	5.000	0	101	70	130				

Sample ID: **LCSD-80533**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/22/2024**	RunNo: **197943**
Client ID: **BatchQC**	Batch ID: **80533**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/29/2024**	SeqNo: **5352723**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.18	1.00	5.000	0	83.6	70	130	5.060	19.0	20	

Sample ID: **24111225-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/22/2024**	RunNo: **197943**
Client ID: **BatchQC**	Batch ID: **80533**	TestNo: **E903.0**	**E903-904**	Analysis Date: **11/29/2024**	SeqNo: **5352733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80533**

Sample ID: **24111225-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197943**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E903.0** **E903-904** Analysis Date: **11/29/2024** SeqNo: **5352733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **24111363-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197943**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E903.0** **E903-904** Analysis Date: **11/29/2024** SeqNo: **5352735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80535**

Sample ID: **MB-80535** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198153**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E904.0** **E903-904** Analysis Date: **12/3/2024** SeqNo: **5358242**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-80535** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198153**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E904.0** **E903-904** Analysis Date: **12/3/2024** SeqNo: **5358243**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.46	1.00	5.000	0	89.2	50	130				
Yield	0.970			0	0						

Sample ID: **LCSD-80535** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198153**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E904.0** **E903-904** Analysis Date: **12/3/2024** SeqNo: **5358244**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.32	1.00	5.000	0	106	50	130	4.460	17.6	20	
Yield	0.970			0	0			0.9700	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80535**

Sample ID: **24111317-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198153**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E904.0** **E903-904** Analysis Date: **12/3/2024** SeqNo: **5358249**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			0.7500	28.6		

Sample ID: **24111607-001DDUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198153**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E904.0** **E903-904** Analysis Date: **12/3/2024** SeqNo: **5358269**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	0.910			0	0			1.000	9.42		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80535**

Sample ID: **MB-80535**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/23/2024**	RunNo: **198160**
Client ID: **BatchQC**	Batch ID: **80535**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/4/2024**	SeqNo: **5358431**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.990										

Sample ID: **LCS-80535**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/23/2024**	RunNo: **198160**
Client ID: **BatchQC**	Batch ID: **80535**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/4/2024**	SeqNo: **5358432**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.81	1.00	5.000	0	116	70	130				

Sample ID: **LCSD-80535**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/23/2024**	RunNo: **198160**
Client ID: **BatchQC**	Batch ID: **80535**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/4/2024**	SeqNo: **5358433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.22	1.00	5.000	0	104	70	130	5.810	10.7	20	

Sample ID: **24111317-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **11/23/2024**	RunNo: **198160**
Client ID: **BatchQC**	Batch ID: **80535**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/4/2024**	SeqNo: **5358438**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24111575**

05-Dec-24

Client: TEKLAB Inc,
Project: 24110120 **BatchID:** **80535**

Sample ID: **24111317-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198160**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E903.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5358438**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							0.8200	19.8	0	

Sample ID: **24111607-001DDUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198160**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E903.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5358458**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	0.980							1.000	2.02	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

24111575

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

17.4-0.0=17.4°C
17.2-0.0=17.2°C
17.3-0.0=17.3°C
CS intact 11/18/24

Cooler Temp: 17.2-17.4 (Sampler: Client QC Level: 2 Fedex, Cooler

Project# 24110120

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy
Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT
Billing/PO: 37434
Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228	CPM							pH			
	24110120-001	11/11/24 1103	HNO3	Groundwater	✔	32							1			
	24110120-002	11/11/24 1144	HNO3	Groundwater	✔	22							1			
	24110120-003	11/11/24 1221	HNO3	Groundwater	✔	14							1			
	24110120-004	11/11/24 1255	HNO3	Groundwater	✔	30							1			
	24110120-005	11/11/24 1338	HNO3	Groundwater	✔	30							1			
	24110120-006	11/11/24 1428	HNO3	Groundwater	✔	40							1			
	24110120-007	11/11/24 1027	HNO3	Groundwater	✔	36							1			
	24110120-008	11/13/24 1107	HNO3	Groundwater	✔	36							1			
	24110120-009	11/13/24 1315	HNO3	Groundwater	✔	42							1			
	24110120-010	11/13/24 1230	HNO3	Groundwater	✔	28							1			
	24110120-011	11/12/24 1307	HNO3	Groundwater	✔	30							1			

*Relinquished By	Date/Time	Received By	Date/Time
Omar Olivares			11/20/24, 1300

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights. Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

17.4-0.0= 17.4°C
17.2-0.0= 17.2°C
17.3-0.0= 17.3°C

Cooler Temp: 17.2-17.4°C Sampler: Client QC Level: 2

Fedex, Cooler
CS intact 11/18/24

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Project# 24110120

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 37434 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228		cpm					pH				
	24110120-012	11/12/24 1001	HNO3	Groundwater	✔		24					1				
	24110120-013	11/12/24 1049	HNO3	Groundwater	✔		32					1				
	24110120-014	11/12/24 1125	HNO3	Groundwater	✔		32					1				
	24110120-015	11/12/24 1349	HNO3	Groundwater	✔		26					1				
	24110120-016	11/12/24 1209	HNO3	Groundwater	✔		22					1				
	24110120-017	11/13/24 1340	HNO3	Groundwater	✔		40					1				
	24110120-018	11/13/24 1207	HNO3	Groundwater	✔		28					1				
	24110120-019	11/13/24 1135	HNO3	Groundwater	✔		26					1				
	24110120-020	11/13/24 1037	HNO3	Groundwater	✔		20					1				
			HNO3	Groundwater												
			HNO3	Groundwater												

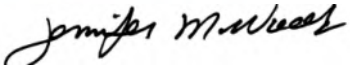
*Relinquished By	Date/Time	Received By	Date/Time
Vince Delores			11/20/24, 1300

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24111575 RcptNo: 1

Logged by:	Anthony W. Britton	11/20/2024 1:00:00 PM	
Completed By:	Anthony W. Britton	11/21/2024 1:24:10 PM	
Reviewed By:	Jennifer Woolf	11/26/2024 11:15:22 AM	

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐
   No. Seal Date: 11/18/2024 Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	17.4	Good	Yes		11/18/2024	

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24111575 RcptNo: 1

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	17.2	Good	Yes		11/18/2024	
3	17.3	Good	Yes		11/18/2024	

December 09, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 24110121

Dear Eric Staley:

TEKLAB, INC received 12 samples on 11/13/2024 3:45:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 24110121
Report Date: 09-Dec-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	19
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24110121
Client Project: FGDS Landfill
Report Date: 09-Dec-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 24110121
Report Date: 09-Dec-24

Cooler Receipt Temp: 10.9 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Summit Environmental Technologies. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 10:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	11/11/2024 10:26	R356376
Depth to water	*	-5.00		**4.65**	ft	1	11/11/2024 10:26	R356376
Depth to water from measuring point	*	0		**7.45**	ft	1	11/11/2024 10:26	R356376
Elevation of groundwater surface	*	0		**539.35**	ft	1	11/11/2024 10:26	R356376
Measuring Point Elevation	*	0		**546.80**	ft	1	11/11/2024 10:26	R356376
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	11/11/2024 10:26	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**11**	NTU	1	11/11/2024 10:26	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.4**	°F	1	11/11/2024 10:26	R356376
SW-846 9040B								
pH, Field	*	1.00		**6.55**		1	11/11/2024 10:26	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1180**	µmhos/cm @25C	1	11/11/2024 10:26	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**905**	mg/L	2.5	11/14/2024 12:21	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 18:30	R355975
Chloride	NELAP	5.00		**106**	mg/L	10	11/13/2024 18:30	R355975
Sulfate	NELAP	10.0		**265**	mg/L	10	11/13/2024 18:30	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0342**	mg/L	1	11/12/2024 19:32	231056
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 19:32	231056
Boron	NELAP	0.0200		**0.126**	mg/L	1	11/12/2024 19:32	231056
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 19:32	231056
Calcium	NELAP	0.100		**164**	mg/L	1	11/12/2024 19:32	231056
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:32	231056
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:32	231056
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 19:32	231056
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 19:32	231056
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	11/16/2024 1:06	231056
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 4:56	231056
Lithium	*	0.0030		**0.0167**	mg/L	5	11/20/2024 9:00	231056
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 4:56	231056
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/15/2024 4:56	231056

LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.
Contamination present in the MBLK. Sample results below the reporting limit are reportable per the TNI Standard.

SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 12:46	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 11/13/2024 10:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.05**	ft	1	11/13/2024 10:24	R356376
Depth to water	*	-5.00		**22.15**	ft	1	11/13/2024 10:24	R356376
Depth to water from measuring point	*	0		**24.76**	ft	1	11/13/2024 10:24	R356376
Elevation of groundwater surface	*	0		**532.44**	ft	1	11/13/2024 10:24	R356376
Measuring Point Elevation	*	0		**557.20**	ft	1	11/13/2024 10:24	R356376
Measuring Point Height Above Land Surface	*	0		**2.61**	ft	1	11/13/2024 10:24	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**62**	NTU	1	11/13/2024 10:24	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.9**	°F	1	11/13/2024 10:24	R356376
SW-846 9040B								
pH, Field	*	1.00		**6.70**		1	11/13/2024 10:24	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**616**	µmhos/cm @25C	1	11/13/2024 10:24	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**550**	mg/L	2.5	11/19/2024 14:07	R356516
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 10:27	R356222
Chloride	NELAP	5.00		**5.59**	mg/L	10	11/15/2024 10:27	R356222
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/15/2024 10:27	R356222
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.178**	mg/L	1	11/18/2024 12:13	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 12:13	231260
Boron	NELAP	0.0200		**0.101**	mg/L	1	11/18/2024 12:13	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 12:13	231260
Calcium	NELAP	0.100		**109**	mg/L	1	11/18/2024 12:13	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:13	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:13	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 12:13	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 12:13	231260
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 4:06	231194
Arsenic	NELAP	0.0010		**0.0058**	mg/L	5	11/20/2024 11:05	231194
Lithium	*	0.0030		**< 0.0030**	mg/L	5	11/20/2024 11:05	231194
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 11:05	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 4:06	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 12:13	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-003 **Client Sample ID:** R111

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 11:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.25**	ft	1	11/11/2024 11:29	R356376
Depth to water	*	-5.00		**25.24**	ft	1	11/11/2024 11:29	R356376
Depth to water from measuring point	*	0		**25.24**	ft	1	11/11/2024 11:29	R356376
Elevation of groundwater surface	*	0		**528.76**	ft	1	11/11/2024 11:29	R356376
Measuring Point Elevation	*	0		**554.00**	ft	1	11/11/2024 11:29	R356376
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	11/11/2024 11:29	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**14**	NTU	1	11/11/2024 11:29	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.9**	°F	1	11/11/2024 11:29	R356376
SW-846 9040B								
pH, Field	*	1.00		**5.96**		1	11/11/2024 11:29	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1130**	µmhos/cm @25C	1	11/11/2024 11:29	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**875**	mg/L	2.5	11/14/2024 12:22	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 18:42	R355975
Chloride	NELAP	5.00		**202**	mg/L	10	11/13/2024 18:42	R355975
Sulfate	NELAP	10.0		**33.3**	mg/L	10	11/13/2024 18:42	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.686**	mg/L	1	11/12/2024 19:33	231056
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 19:33	231056
Boron	NELAP	0.0200		**4.19**	mg/L	1	11/12/2024 19:33	231056
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 19:33	231056
Calcium	NELAP	0.100		**169**	mg/L	1	11/12/2024 19:33	231056
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:33	231056
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:33	231056
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 19:33	231056
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 19:33	231056
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	11/16/2024 1:10	231056
Arsenic	NELAP	0.0010		**0.0185**	mg/L	5	11/15/2024 5:01	231056
Lithium	*	0.0030		**0.0066**	mg/L	5	11/20/2024 9:06	231056
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 5:01	231056
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/15/2024 5:01	231056

LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.
Contamination present in the MBLK. Sample results below the reporting limit are reportable per the TNI Standard.

SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 12:49	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-004 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 12:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.99**	ft	1	11/11/2024 12:27	R356376
Depth to water	*	-5.00		**25.62**	ft	1	11/11/2024 12:27	R356376
Depth to water from measuring point	*	0		**27.80**	ft	1	11/11/2024 12:27	R356376
Elevation of groundwater surface	*	0		**527.00**	ft	1	11/11/2024 12:27	R356376
Measuring Point Elevation	*	0		**554.80**	ft	1	11/11/2024 12:27	R356376
Measuring Point Height Above Land Surface	*	0		**2.18**	ft	1	11/11/2024 12:27	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.7**	NTU	1	11/11/2024 12:27	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.6**	°F	1	11/11/2024 12:27	R356376
SW-846 9040B								
pH, Field	*	1.00		**6.21**		1	11/11/2024 12:27	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1260**	µmhos/cm @25C	1	11/11/2024 12:27	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1050**	mg/L	2.5	11/14/2024 12:22	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 18:54	R355975
Chloride	NELAP	5.00		**184**	mg/L	10	11/13/2024 18:54	R355975
Sulfate	NELAP	10.0		**234**	mg/L	10	11/13/2024 18:54	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.423**	mg/L	1	11/12/2024 19:35	231056
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 19:35	231056
Boron	NELAP	0.0200		**0.435**	mg/L	1	11/12/2024 19:35	231056
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 19:35	231056
Calcium	NELAP	0.100		**203**	mg/L	1	11/12/2024 19:35	231056
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:35	231056
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:35	231056
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 19:35	231056
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 19:35	231056
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	11/16/2024 1:43	231056
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 5:07	231056
Lithium	*	0.0030		**0.0214**	mg/L	5	11/20/2024 9:11	231056
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 5:07	231056
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/15/2024 5:07	231056

LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.

Contamination present in the MBLK. Sample results below the reporting limit are reportable per the TNI Standard.

SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 12:51	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 11:16

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**524.85**	ft	1	11/11/2024 11:16	R356376
Depth to water	*	-5.00		**5.17**	ft	1	11/11/2024 11:16	R356376
Depth to water from measuring point	*	0		**7.67**	ft	1	11/11/2024 11:16	R356376
Elevation of groundwater surface	*	0		**530.03**	ft	1	11/11/2024 11:16	R356376
Measuring Point Elevation	*	0		**537.70**	ft	1	11/11/2024 11:16	R356376
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	11/11/2024 11:16	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.4**	NTU	1	11/11/2024 11:16	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.1**	°F	1	11/11/2024 11:16	R356376
SW-846 9040B								
pH, Field	*	1.00		**6.14**		1	11/11/2024 11:16	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**972**	µmhos/cm @25C	1	11/11/2024 11:16	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**785**	mg/L	2.5	11/14/2024 12:22	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 19:40	R355975
Chloride	NELAP	5.00		**30.7**	mg/L	10	11/13/2024 19:40	R355975
Sulfate	NELAP	10.0		**164**	mg/L	10	11/13/2024 19:40	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.186**	mg/L	1	11/12/2024 19:37	231056
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 19:37	231056
Boron	NELAP	0.0200		**1.07**	mg/L	1	11/12/2024 19:37	231056
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 19:37	231056
Calcium	NELAP	0.100		**174**	mg/L	1	11/12/2024 19:37	231056
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:37	231056
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:37	231056
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 19:37	231056
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 19:37	231056
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	11/16/2024 1:47	231056
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 5:12	231056
Lithium	*	0.0030		**0.0031**	mg/L	5	11/20/2024 10:04	231056
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 5:12	231056
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/15/2024 5:12	231056

LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.

Contamination present in the MBLK. Sample results below the reporting limit are reportable per the TNI Standard.

SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 12:54	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-006 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 11/13/2024 11:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	11/13/2024 11:18	R356376
Depth to water	*	-5.00		**16.72**	ft	1	11/13/2024 11:18	R356376
Depth to water from measuring point	*	0		**16.72**	ft	1	11/13/2024 11:18	R356376
Elevation of groundwater surface	*	0		**536.38**	ft	1	11/13/2024 11:18	R356376
Measuring Point Elevation	*	0		**553.10**	ft	1	11/13/2024 11:18	R356376
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	11/13/2024 11:18	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**30**	NTU	1	11/13/2024 11:18	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.2**	°F	1	11/13/2024 11:18	R356376
SW-846 9040B								
pH, Field	*	1.00		**6.55**		1	11/13/2024 11:18	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1380**	µmhos/cm @25C	1	11/13/2024 11:18	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	100		**1430**	mg/L	5	11/19/2024 14:17	R356516
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 10:39	R356222
Chloride	NELAP	5.00		**37.4**	mg/L	10	11/15/2024 10:39	R356222
Sulfate	NELAP	10.0		**565**	mg/L	10	11/15/2024 10:39	R356222
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.565**	mg/L	1	11/18/2024 12:15	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 12:15	231260
Boron	NELAP	0.0200		**7.50**	mg/L	1	11/18/2024 12:15	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 12:15	231260
Calcium	NELAP	0.100		**263**	mg/L	1	11/18/2024 12:15	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:15	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:15	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 12:15	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 12:15	231260
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 4:12	231194
Arsenic	NELAP	0.0010		**0.0119**	mg/L	5	11/20/2024 4:12	231194
Lithium	*	0.0030		**0.0086**	mg/L	5	11/20/2024 11:11	231194
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 4:12	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 4:12	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 12:16	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	11/27/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 13:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	11/11/2024 13:30	R356376
Depth to water	*	-5.00		**32.66**	ft	1	11/11/2024 13:30	R356376
Depth to water from measuring point	*	0		**34.53**	ft	1	11/11/2024 13:30	R356376
Elevation of groundwater surface	*	0		**521.07**	ft	1	11/11/2024 13:30	R356376
Measuring Point Elevation	*	0		**555.60**	ft	1	11/11/2024 13:30	R356376
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	11/11/2024 13:30	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**12**	NTU	1	11/11/2024 13:30	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.2**	°F	1	11/11/2024 13:30	R356376
SW-846 9040B								
pH, Field	*	1.00		**6.75**		1	11/11/2024 13:30	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1370**	µmhos/cm @25C	1	11/11/2024 13:30	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1040**	mg/L	2.5	11/14/2024 12:22	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 19:52	R355975
Chloride	NELAP	5.00		**29.0**	mg/L	10	11/13/2024 19:52	R355975
Sulfate	NELAP	10.0		**311**	mg/L	10	11/13/2024 19:52	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.626**	mg/L	1	11/12/2024 19:38	231056
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 19:38	231056
Boron	NELAP	0.0200		**3.68**	mg/L	1	11/12/2024 19:38	231056
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 19:38	231056
Calcium	NELAP	0.100		**191**	mg/L	1	11/12/2024 19:38	231056
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:38	231056
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:38	231056
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 19:38	231056
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 19:38	231056
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	11/16/2024 1:51	231056
Arsenic	NELAP	0.0010		**0.0160**	mg/L	5	11/15/2024 5:18	231056
Lithium	*	0.0030		**0.0079**	mg/L	5	11/20/2024 10:10	231056
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 5:18	231056
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/15/2024 5:18	231056

LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.
Contamination present in the MBLK. Sample results below the reporting limit are reportable per the TNI Standard.

SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 13:02	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 14:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	11/11/2024 14:10	R356376
Depth to water	*	-5.00		**28.50**	ft	1	11/11/2024 14:10	R356376
Depth to water from measuring point	*	0		**30.24**	ft	1	11/11/2024 14:10	R356376
Elevation of groundwater surface	*	0		**524.16**	ft	1	11/11/2024 14:10	R356376
Measuring Point Elevation	*	0		**554.40**	ft	1	11/11/2024 14:10	R356376
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	11/11/2024 14:10	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.7**	NTU	1	11/11/2024 14:10	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.4**	°F	1	11/11/2024 14:10	R356376
SW-846 9040B								
pH, Field	*	1.00		**6.64**		1	11/11/2024 14:10	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1590**	µmhos/cm @25C	1	11/11/2024 14:10	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1360**	mg/L	2.5	11/14/2024 12:22	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 20:04	R355975
Chloride	NELAP	5.00		**37.6**	mg/L	10	11/13/2024 20:04	R355975
Sulfate	NELAP	10.0		**547**	mg/L	10	11/13/2024 20:04	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.468**	mg/L	1	11/12/2024 19:40	231056
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 19:40	231056
Boron	NELAP	0.0200	S	**11.7**	mg/L	1	11/12/2024 19:40	231056
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 19:40	231056
Calcium	NELAP	0.100	S	**246**	mg/L	1	11/12/2024 19:40	231056
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:40	231056
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:40	231056
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 19:40	231056
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 19:40	231056
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	BS	**< 0.0010**	mg/L	5	11/16/2024 1:14	231056
Arsenic	NELAP	0.0010		**0.0029**	mg/L	5	11/15/2024 5:24	231056
Lithium	*	0.0030		**0.0070**	mg/L	5	11/20/2024 9:17	231056
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 5:24	231056
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/15/2024 5:24	231056
Matrix spike recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable.								
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
Contamination present in the MBLK. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 13:17	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 12:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	11/11/2024 12:06	R356376
Depth to water	*	-5.00		**11.79**	ft	1	11/11/2024 12:06	R356376
Depth to water from measuring point	*	0		**14.54**	ft	1	11/11/2024 12:06	R356376
Elevation of groundwater surface	*	0		**541.06**	ft	1	11/11/2024 12:06	R356376
Measuring Point Elevation	*	0		**555.60**	ft	1	11/11/2024 12:06	R356376
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	11/11/2024 12:06	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**19**	NTU	1	11/11/2024 12:06	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.6**	°F	1	11/11/2024 12:06	R356376
SW-846 9040B								
pH, Field	*	1.00		**6.56**		1	11/11/2024 12:06	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1410**	µmhos/cm @25C	1	11/11/2024 12:06	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1100**	mg/L	2.5	11/14/2024 12:25	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 20:15	R355975
Chloride	NELAP	5.00		**37.3**	mg/L	10	11/13/2024 20:15	R355975
Sulfate	NELAP	10.0		**388**	mg/L	10	11/13/2024 20:15	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.446**	mg/L	1	11/12/2024 19:52	231056
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 19:52	231056
Boron	NELAP	0.0200		**8.91**	mg/L	1	11/12/2024 19:52	231056
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 19:52	231056
Calcium	NELAP	0.100		**193**	mg/L	1	11/12/2024 19:52	231056
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:52	231056
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 19:52	231056
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 19:52	231056
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 19:52	231056
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	11/16/2024 1:56	231056
Arsenic	NELAP	0.0010		**0.168**	mg/L	5	11/16/2024 7:57	231056
Lithium	*	0.0030		**0.0113**	mg/L	5	11/20/2024 10:15	231056
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/16/2024 7:57	231056
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/18/2024 16:43	231056
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
Contamination present in the MBLK. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/14/2024 13:20	231146
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-010 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 11/13/2024 12:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	11/13/2024 12:38	R356376
Depth to water	*	-5.00		**1.21**	ft	1	11/13/2024 12:38	R356376
Depth to water from measuring point	*	0		**4.51**	ft	1	11/13/2024 12:38	R356376
Elevation of groundwater surface	*	0		**525.47**	ft	1	11/13/2024 12:38	R356376
Measuring Point Elevation	*	0		**529.98**	ft	1	11/13/2024 12:38	R356376
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	11/13/2024 12:38	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.6**	NTU	1	11/13/2024 12:38	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.6**	°F	1	11/13/2024 12:38	R356376
SW-846 9040B								
pH, Field	*	1.00		**6.73**		1	11/13/2024 12:38	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**840**	µmhos/cm @25C	1	11/13/2024 12:38	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50	H	**795**	mg/L	2.5	11/21/2024 17:12	R356629
Sample analysis did not meet hold time requirements.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 10:51	R356222
Chloride	NELAP	5.00		**25.7**	mg/L	10	11/15/2024 10:51	R356222
Sulfate	NELAP	10.0		**99.2**	mg/L	10	11/15/2024 10:51	R356222
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.516**	mg/L	1	11/18/2024 12:16	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 12:16	231260
Boron	NELAP	0.0200		**2.46**	mg/L	1	11/18/2024 12:16	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 12:16	231260
Calcium	NELAP	0.100		**144**	mg/L	1	11/18/2024 12:16	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:16	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:16	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 12:16	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 12:16	231260
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 4:18	231194
Arsenic	NELAP	0.0010		**0.0130**	mg/L	5	11/20/2024 4:18	231194
Lithium	*	0.0030		**0.0062**	mg/L	5	11/20/2024 11:17	231194
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 4:18	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 4:18	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 12:24	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-011 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 11/11/2024 11:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	11/11/2024 11:03	R356376
Depth to water	*	-5.00		**8.75**	ft	1	11/11/2024 11:03	R356376
Depth to water from measuring point	*	0		**11.45**	ft	1	11/11/2024 11:03	R356376
Elevation of groundwater surface	*	0		**528.05**	ft	1	11/11/2024 11:03	R356376
Measuring Point Elevation	*	0		**539.50**	ft	1	11/11/2024 11:03	R356376
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	11/11/2024 11:03	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**48**	NTU	1	11/11/2024 11:03	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.8**	°F	1	11/11/2024 11:03	R356376
SW-846 9040B								
pH, Field	*	1.00		**7.13**		1	11/11/2024 11:03	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**531**	µmhos/cm @25C	1	11/11/2024 11:03	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**470**	mg/L	2.5	11/14/2024 12:11	R356260
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2024 0:00	R355975
Chloride	NELAP	5.00		**25.1**	mg/L	10	11/13/2024 0:00	R355975
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/13/2024 0:00	R355975
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.180**	mg/L	1	11/12/2024 11:03	231044
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/12/2024 11:03	231044
Boron	NELAP	0.0200		**0.137**	mg/L	1	11/12/2024 11:03	231044
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/12/2024 11:03	231044
Calcium	NELAP	0.100		**67.2**	mg/L	1	11/12/2024 11:03	231044
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 11:03	231044
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/12/2024 11:03	231044
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/12/2024 11:03	231044
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/12/2024 11:03	231044
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/15/2024 22:11	231044
Arsenic	NELAP	0.0010		**0.214**	mg/L	5	11/14/2024 0:51	231044
Lithium	*	0.0030		**0.0047**	mg/L	5	11/14/2024 17:29	231044
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/14/2024 0:51	231044
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/14/2024 17:29	231044
LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/13/2024 0:00	231083
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220

Client: City Water, Light & Power **Work Order:** 24110121

Client Project: FGDS Landfill **Report Date:** 09-Dec-24

Lab ID: 24110121-012 **Client Sample ID:** P07D

Matrix: GROUNDWATER **Collection Date:** 11/13/2024 12:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**528.25**	ft	1	11/13/2024 12:06	R356376
Depth to water	*	-5.00		**1.37**	ft	1	11/13/2024 12:06	R356376
Depth to water from measuring point	*	0		**4.37**	ft	1	11/13/2024 12:06	R356376
Elevation of groundwater surface	*	0		**523.88**	ft	1	11/13/2024 12:06	R356376
Measuring Point Elevation	*	0		**528.25**	ft	1	11/13/2024 12:06	R356376
Measuring Point Height Above Land Surface	*	0		**3.00**	ft	1	11/13/2024 12:06	R356376
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**12**	NTU	1	11/13/2024 12:06	R356376
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.0**	°F	1	11/13/2024 12:06	R356376
SW-846 9040B								
pH, Field	*	1.00		**6.64**		1	11/13/2024 12:06	R356376
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1110**	µmhos/cm @25C	1	11/13/2024 12:06	R356376
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50	H	**1020**	mg/L	2.5	11/21/2024 17:12	R356629
Sample analysis did not meet hold time requirements.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/15/2024 11:37	R356222
Chloride	NELAP	5.00		**32.2**	mg/L	10	11/15/2024 11:37	R356222
Sulfate	NELAP	10.0		**305**	mg/L	10	11/15/2024 11:37	R356222
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.857**	mg/L	1	11/18/2024 12:47	231260
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	11/18/2024 12:47	231260
Boron	NELAP	0.0200		**5.40**	mg/L	1	11/18/2024 12:47	231260
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	11/18/2024 12:47	231260
Calcium	NELAP	0.100		**189**	mg/L	1	11/18/2024 12:47	231260
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:47	231260
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	11/18/2024 12:47	231260
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	11/18/2024 12:47	231260
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	11/18/2024 12:47	231260
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 4:24	231194
Arsenic	NELAP	0.0010		**0.0360**	mg/L	5	11/20/2024 4:24	231194
Lithium	*	0.0030		**0.0095**	mg/L	5	11/20/2024 11:22	231194
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	11/20/2024 4:24	231194
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	11/20/2024 4:24	231194
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	11/18/2024 12:27	231196
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220
Radium-228	*	0		**See Attached**	pci/L	1	12/03/2024 0:00	R357220

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24110121
Client Project: FGDS Landfill
Report Date: 09-Dec-24

Carrier: Brett Gillihan
Received By: JMD

Completed by: Amber Dilallo
On: 11-Nov-24

Reviewed by: Ellie Hopkins
On: 14-Nov-24

Pages to follow: Chain of custody 4 Extra pages included 42

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	10.9	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #96651. - JD/amberdilallo - 11/11/2024 4:58:57 PM

Samples were received on 11/13/24 at 15:45 on ice [10.5C - LTG#5]. ph strip #96651. Additional nitric acid (100984) was needed for P07D upon arrival at the laboratory.- lhenson - 11/14/2024 8:39:22 AM

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24110121

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 1.2.9 °C 5
Preserved in: [ ] LAB [x] FIELD FOR LAB USE ONLY
LAB NOTES: PA 96051
SD 11/11/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 24110120-001

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Brett Gillihan

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24110121-001	R101	11-11-24 1026	Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G110		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	R111	11/11/24 1129	Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	G112	11/11/24 1227	Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	G113	11-11-24 1116	Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	G120		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	G121	11-11-24 1330	Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	G122	11-11-24 1410	Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AW-1	11-11-24 1206	Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	RW-3	11-11-24 1103	Groundwater	0	0								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Brett Gillihan	11-11-24 1610	Jackie Davis	11/11/24 16:10

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24110124

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24110124 - 012	P07D		Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	11-11 / 1610	Jackie Davis	11/11/24 16:10

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 24110121

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 10.5°C 5
Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: PW 96057
added HNO3 (1009849) pH<2 LM 11/14/24

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event. 24110120-001

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
T Carroll

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24110121-001	R101		Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	G110	11/13/24 1024	Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	R111		Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	G112		Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	G113		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	G120	11/13/24 1118	Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	G121		Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	G122		Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AW-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AW-2	11/13/24 1238	Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	RW-3		Groundwater	0	0								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	11-13/1545		11/13/24 1545

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 24110121

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

Client Comments:

*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025

PROJECT NAME/NUMBER

FGDS Landfill

SAMPLE COLLECTOR'S NAME

TCarroll

RESULTS REQUESTED

☑ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
24110121 - 012	P07D	11/13/24 1206	Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	11-13/1545		11/13/24 1545

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Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 24110121
Monitoring Point: R101
Sample ID: 001
Date (s): 11/11/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 55 °F
Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW
Precipitation: ☑ None ☐ Light ☐ Heavy
Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 10:00
Static Water Level: 7.45 feet below TOC
Total Depth: 35.27 feet below TOC
Water Column: 27.82 feet

Purging Activities

Purged By: BG Purge Date: 11/11/2024
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 27.82 ft. x 0.022 = 0.61 L x 3 Vol. = 1.83 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Clear Odor: Slight Color: clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:00	0.0	154	purge start time						
10:11	1.7	↓	6.50	1,179.40	13.55	0.97	-8.70	13.48	
10:14	2.2		6.52	1,179.10	13.57	0.92	-6.80	14.93	
10:17	2.6		6.53	1,178.90	13.60	0.88	-10.40	16.39	
10:20	3.1		6.54	1,179.10	13.60	0.87	-15.10	13.59	
10:23	3.5		6.54	1,178.70	13.60	0.85	-19.90	12.12	
10:26	4.0		6.55	1,178.70	13.58	0.84	-24.30	10.74	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/11/2024 10:26
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.55 pH 1,178.70 Spec. Cond. 13.58 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 7.56 feet below TOC Drawdown: 0.11 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan Date: 11/11/2024

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 24110121
Monitoring Point: G110
Sample ID: 002
Date (s): 11/13/2024

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 48 °F Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 10:02
Static Water Level: 24.76 feet below TOC
Total Depth: 57.15 feet below TOC
Water Column: 32.39 feet

Purging Activities

Purged By: TC Purge Date: 11/13/2024
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 32.39 ft. x 0.022 = 0.71 L x 3 Vol. = 2.13 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.50 L
Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:03	0.0	262	purge start time						
10:09	1.6	↓	6.80	606.80	14.25	1.58	-127.50	13.35	
10:12	2.4		6.79	609.30	14.27	1.34	-138.40	14.52	
10:15	3.1		6.76	610.30	14.32	1.19	-143.60	17.07	
10:18	3.9		6.72	613.80	14.39	1.10	-145.80	24.07	
10:21	4.7		6.71	615.10	14.47	1.03	-147.50	37.25	
10:24	5.5		6.70	615.80	14.37	0.97	-148.30	62.27	

Sampling Activities

Sampled By: TC Sample Date/Time: 11/13/2024 10:24
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.70 pH 615.80 Spec. Cond. 14.37 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 24.91 feet below TOC Drawdown: 0.15 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45720

Form Completed By: Tracy Carroll **Date:** 11/13/2024

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	R111
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	24110121	**Date (s):**	11/11/2024

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 53 °F Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 11:02

Static Water Level: 25.24 feet below TOC

Total Depth: 55.75 feet below TOC

Water Column: 30.51 feet

Purging Activities

Purged By: TC Purge Date: 11/11/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.51 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:02	0.0	222	purge start time						
11:11	2.0	↓	6.02	1,073.20	14.28	3.04	-1.90	7.77	
11:14	2.7		6.00	1,099.80	14.26	2.68	-6.70	8.75	
11:17	3.4		5.98	1,111.70	14.27	2.44	-9.90	9.68	
11:20	4.0		5.97	1,118.70	14.30	2.26	-12.60	12.64	
11:23	4.7		5.96	1,124.70	14.33	2.13	-14.90	7.74	
11:26	5.4		5.96	1,129.30	14.32	2.02	-17.20	10.77	
11:29	6.0		5.96	1,133.70	14.37	1.93	-19.00	13.81	

Sampling Activities

Sampled By: TC Sample Date/Time: 11/11/2024 11:29

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 5.96 pH 1,133.70 Spec. Cond. 14.37 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 25.38 feet below TOC Drawdown: 0.14 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45720

Form Completed By: Tracy Carroll **Date:** 11/11/2024

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 24110121
Monitoring Point: G112
Sample ID: 004
Date (s): 11/11/2024

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 55 °F Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 11:58
Static Water Level: 27.80 feet below TOC
Total Depth: 58.81 feet below TOC
Water Column: 31.01 feet

Purging Activities

Purged By: TC Purge Date: 11/11/2024
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 31.01 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:58	0.0	103	purge start time						
12:12	1.4	↓	6.41	1,237.60	16.01	4.01	43.10	4.39	
12:15	1.8		6.32	1,254.40	15.87	3.40	39.00	4.03	
12:18	2.1		6.27	1,258.60	15.88	2.96	35.20	4.59	
12:21	2.4		6.24	1,260.50	15.86	2.69	31.20	4.29	
12:24	2.7		6.22	1,260.40	15.87	2.47	27.30	4.65	
12:27	3.0		6.21	1,260.90	15.89	2.31	23.50	4.70	

Sampling Activities

Sampled By: TC Sample Date/Time: 11/11/2024 12:27
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.21 pH 1,260.90 Spec. Cond. 15.89 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 28.73 feet below TOC Drawdown: 0.93 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45720

Form Completed By: Tracy Carroll **Date:** 11/11/2024

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G113
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	24110121	**Date (s):**	11/11/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 57 °F Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 10:51

Static Water Level: 7.67 feet below TOC

Total Depth: 12.85 feet below TOC

Water Column: 5.18 feet

Purging Activities

Purged By: BG Purge Date: 11/11/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 5.18 ft. x 0.022 = 0.11 L x 3 Vol. = 0.33 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 2.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:51	0.0	80	purge start time						
11:01	0.8	↓	6.21	960.90	15.47	1.23	-95.10	98.48	
11:04	1.0		6.19	960.90	15.49	1.09	-97.30	35.36	
11:07	1.3		6.17	962.20	15.49	0.96	-100.50	15.18	
11:10	1.5		6.15	966.40	15.54	0.93	-104.00	10.46	
11:13	1.8		6.15	969.80	15.59	0.92	-107.00	8.65	
11:16	2.0		6.14	971.60	15.59	0.89	-108.80	8.40	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/11/2024 11:16

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.14 pH 971.60 Spec. Cond. 15.59 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 8.65 feet below TOC Drawdown: 0.98 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/11/2024

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G120
Project Location:	Springfield, IL	**Sample ID:**	006
W.O. Number (s):	24110121	**Date (s):**	11/13/2024

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 49 °F Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 10:57

Static Water Level: 16.72 feet below TOC

Total Depth: 50.37 feet below TOC

Water Column: 33.65 feet

Purging Activities

Purged By: TC Purge Date: 11/13/2024

Purge Method: Submersible Pump Well Diameter: 2"

Purge Volume Calculation (L): 33.65 ft. x 0.022 = 0.74 L x 3 Vol. = 2.22 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 8.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:57	0.0	381	purge start time						
11:09	4.6	↓	6.55	1,379.10	15.07	0.94	-166.80	19.19	
11:12	5.7		6.55	1,377.70	15.21	0.94	-166.70	20.28	
11:15	6.9		6.55	1,377.10	15.40	0.96	-161.80	26.04	
11:18	8.0		6.55	1,381.20	15.65	0.93	-164.60	29.66	

Sampling Activities

Sampled By: TC Sample Date/Time: 11/13/2024 11:18

Sample Method: Low Flow Sample Equipment: Submersible Pump

Sample Parameters: 6.55 pH 1,381.20 Spec. Cond. 15.65 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 17.38 feet below TOC Drawdown: 0.66 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45720

Form Completed By: Tracy Carroll **Date:** 11/13/2024

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G121
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	24110121	**Date (s):**	11/11/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 61 °F Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 13:07

Static Water Level: 34.53 feet below TOC

Total Depth: 58.56 feet below TOC

Water Column: 24.03 feet

Purging Activities

Purged By: BG Purge Date: 11/11/2024

Purge Method: Submersible Pump Well Diameter: 2"

Purge Volume Calculation (L): 24.03 ft. x 0.022 = 0.53 L x 3 Vol. = 1.59 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:07	0.0	304	purge start time						
13:21	4.3	↓	6.77	1,375.80	14.29	0.72	-126.20	21.03	
13:24	5.2		6.76	1,375.00	14.39	0.70	-127.60	16.22	
13:27	6.1		6.75	1,372.30	14.56	0.67	-128.80	14.20	
13:30	7.0		6.75	1,372.70	14.54	0.65	-129.80	12.07	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/11/2024 13:30

Sample Method: Low Flow Sample Equipment: Submersible Pump

Sample Parameters: 6.75 pH 1,372.70 Spec. Cond. 14.54 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 35.76 feet below TOC Drawdown: 1.23 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/11/2024

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G122
Project Location:	Springfield, IL	**Sample ID:**	008
W.O. Number (s):	24110121	**Date (s):**	11/11/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 62 °F Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 13:46

Static Water Level: 30.24 feet below TOC

Total Depth: 49.29 feet below TOC

Water Column: 19.05 feet

Purging Activities

Purged By: BG Purge Date: 11/11/2024

Purge Method: Submersible Pump Well Diameter: 2"

Purge Volume Calculation (L): 19.05 ft. x 0.022 = 0.42 L x 3 Vol. = 1.26 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:46	0.0	292	purge start time						
13:58	3.5	↓	6.70	1,560.70	14.16	1.82	-86.50	13.00	
14:01	4.4		6.67	1,573.10	14.21	1.62	-88.90	9.64	
14:04	5.3		6.66	1,583.50	14.16	1.42	-90.70	10.31	
14:07	6.1		6.65	1,589.40	14.13	1.26	-92.60	9.34	
14:10	7.0		6.64	1,593.40	14.13	1.12	-94.50	5.71	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/11/2024 14:10

Sample Method: Low Flow Sample Equipment: Submersible Pump

Sample Parameters: 6.64 pH 1,593.40 Spec. Cond. 14.13 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 31.15 feet below TOC Drawdown: 0.91 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/11/2024

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 24110121
Monitoring Point: AW-1
Sample ID: 009
Date (s): 11/11/2024

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 60 °F
Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW
Precipitation: ☑ None ☐ Light ☐ Heavy
Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 11:39
Static Water Level: 14.54 feet below TOC
Total Depth: 54.81 feet below TOC
Water Column: 40.27 feet

Purging Activities

Purged By: BG Purge Date: 11/11/2024
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 40.27 ft. x 0.022 = 0.89 L x 3 Vol. = 2.67 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.50 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:39	0.0	167	purge start time						
11:51	2.0	↓	6.61	1,402.90	15.51	1.63	-108.90	22.99	
11:54	2.5		6.58	1,405.40	15.51	1.47	-108.00	14.38	
11:57	3.0		6.57	1,404.70	15.44	1.35	-107.00	14.62	
12:00	3.5		6.57	1,405.60	15.35	1.24	-106.70	22.00	
12:03	4.0		6.56	1,405.40	15.33	1.15	-106.90	17.79	
12:06	4.5		6.56	1,408.20	15.33	1.08	-107.20	19.26	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/11/2024 12:06
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.56 pH 1,408.20 Spec. Cond. 15.33 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 15.42 feet below TOC Drawdown: 0.88 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Brett Gillihan **Date:** 11/11/2024

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-2
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	24110121	**Date (s):**	11/13/2024

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 50 °F Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 12:17

Static Water Level: 4.51 feet below TOC

Total Depth: 32.64 feet below TOC

Water Column: 28.13 feet

Purging Activities

Purged By: TC Purge Date: 11/13/2024

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 28.13 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.50 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:22	0.0	344	purge start time						
12:29	2.4	↓	6.74	831.00	14.99	1.22	-161.90	8.74	
12:32	3.4		6.74	831.40	14.97	1.03	-165.70	6.42	
12:35	4.5		6.74	834.50	14.88	0.92	-168.10	5.54	
12:38	5.5		6.73	840.40	14.78	0.84	-169.60	6.63	

Sampling Activities

Sampled By: TC Sample Date/Time: 11/13/2024 12:38

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.73 pH 840.40 Spec. Cond. 14.78 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 4.68 feet below TOC Drawdown: 0.17 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45720

Form Completed By: Tracy Carroll **Date:** 11/13/2024

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	RW-3
Project Location:	Springfield, IL	**Sample ID:**	011
W.O. Number (s):	24110121	**Date (s):**	11/11/2024

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 56 °F — Wind Direction: ☐ N ☐ S ☐ W ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/11/2024 10:36

Static Water Level: 11.45 feet below TOC

Total Depth: 44.01 feet below TOC

Water Column: 32.56 feet

Purging Activities

Purged By: JC — Purge Date: 11/11/2024

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 32.56 ft. x 0.022 = 0.72 L x 3 Vol. = 2.16 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:37	0.0	173	purge start time						
10:42	0.9	↓	7.12	525.70	14.52	4.56	-168.70	6.48	
10:45	1.4		7.13	532.90	14.51	3.40	-178.00	46.77	
10:48	1.9		7.13	535.30	14.50	2.78	-180.60	90.25	
10:51	2.5		7.13	535.60	14.50	2.41	-181.80	122.85	
10:54	3.0		7.13	535.60	14.47	2.17	-182.50	72.57	
10:57	3.5		7.13	535.40	14.45	1.99	-182.90	112.49	
11:00	4.0		7.13	534.70	14.47	1.87	-183.00	50.61	
11:03	4.5		7.13	531.10	14.90	1.77	-182.40	47.61	

Sampling Activities

Sampled By: JC — Sample Date/Time: 11/11/2024 11:03

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 7.13 pH — 531.10 Spec. Cond. — 14.90 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 15.89 feet below TOC — Drawdown: 4.44 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210771
-

Form Completed By: Justin Colp — **Date:** 11/11/2024

Field Data Sheet

Project Name: FGDS Landfill | **Monitoring Point:** P07D
Project Location: Springfield, IL | **Sample ID:** 012
W.O. Number (s): 24110121 | **Date (s):** 11/13/2024

Field Team Members

Name: Tracy Carroll | Affiliation: TekLab, Inc.
Name: | Affiliation:

Weather Conditions

Temp: 49 °F | Wind Direction: ☐ N ☐ S ☐ W ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy | Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/2024 11:32

Static Water Level: 4.37 feet below TOC
Total Depth: 32.54 feet below TOC
Water Column: 28.17 feet

Purging Activities

Purged By: TC | Purge Date: 11/13/2024
Purge Method: Peristaltic Pump | Well Diameter: 2"
Purge Volume Calculation (L): 28.17 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 12.00 L
Physical appearance of purge water: Clear | Odor: None | Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:32	0.0	353	purge start time						
11:42	3.5	↓	6.64	1,105.90	13.81	0.90	-170.80	46.43	
11:45	4.6		6.64	1,105.30	13.78	0.76	-173.00	28.62	
11:48	5.6		6.64	1,104.40	13.79	0.68	-174.30	15.93	
11:51	6.7		6.64	1,105.30	13.78	0.60	-176.00	263.87	
11:54	7.8		*Tubing disconnected from flow cell*						
11:57	8.8		6.64	1,105.50	13.72	1.35	-162.50	11.85	
12:00	9.9		6.64	1,105.80	13.77	0.81	-169.30	7.34	
12:03	10.9		6.64	1,106.30	13.90	0.65	-172.60	8.25	
12:06	12.0		6.64	1,106.20	13.88	0.58	-174.30	12.08	

Sampling Activities

Sampled By: TC | Sample Date/Time: 11/13/2024 12:06
Sample Method: Low Flow | Sample Equipment: Peristaltic Pump
Sample Parameters: 6.64 pH | 1,106.20 Spec. Cond. | 13.88 Temp
Field Filtered: No | Filter Type:
Water Level: 4.70 feet below TOC | Drawdown: 0.33 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45720

Form Completed By: Tracy Carroll | **Date:** 11/13/2024

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **24111568**
Date: **12/6/2024**

CLIENT: TEKLAB Inc,
Project: 24110121

WorkOrder Narrative:
24111568: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24111568**
Date: **12/6/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24111568**

06-Dec-24

CLIENT: TEKLAB Inc,
Project: 24110121

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24111568-001	24110121-001		11/11/2024 10:26:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-002	24110121-002		11/13/2024 10:24:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-003	24110121-003		11/11/2024 11:29:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-004	24110121-004		11/11/2024 12:27:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-005	24110121-005		11/11/2024 11:16:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-006	24110121-006		11/13/2024 11:18:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-007	24110121-007		11/11/2024 1:30:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-008	24110121-008		11/11/2024 2:10:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-009	24110121-009		11/11/2024 12:06:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-010	24110121-010		11/11/2024 12:38:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-011	24110121-011		11/11/2024 11:03:00 AM	11/20/2024 1:00:00 PM	Non-Potable Water
24111568-012	24110121-012		11/13/2024 12:06:00 PM	11/20/2024 1:00:00 PM	Non-Potable Water

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DATES REPORT

WO#: **24111568**

06-Dec-24

Client: TEKLAB Inc,
Project: 24110121

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24111568-001A	24110121-001	11/11/2024 10:26:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		11/22/2024 11:34:00 AM	11/29/2024 9:41:00 AM
				Radium-228 (EPA 904.0)		11/22/2024 11:34:00 AM	11/27/2024 2:09:00 PM
24111568-002A	24110121-002	11/13/2024 10:24:00 AM		Radium-226 (EPA 903.0)		11/22/2024 11:34:00 AM	11/29/2024 9:41:00 AM
				Radium-228 (EPA 904.0)		11/22/2024 11:34:00 AM	11/27/2024 2:09:00 PM
24111568-003A	24110121-003	11/11/2024 11:29:00 AM		Radium-226 (EPA 903.0)		11/22/2024 11:34:00 AM	11/29/2024 9:41:00 AM
				Radium-228 (EPA 904.0)		11/22/2024 11:34:00 AM	11/27/2024 2:09:00 PM
24111568-004A	24110121-004	11/11/2024 12:27:00 PM		Radium-226 (EPA 903.0)		11/22/2024 11:34:00 AM	11/29/2024 9:41:00 AM
				Radium-228 (EPA 904.0)		11/22/2024 11:34:00 AM	11/27/2024 2:09:00 PM
24111568-005A	24110121-005	11/11/2024 11:16:00 AM		Radium-226 (EPA 903.0)		11/22/2024 11:34:00 AM	11/29/2024 9:41:00 AM
				Radium-228 (EPA 904.0)		11/22/2024 11:34:00 AM	11/27/2024 2:09:00 PM
24111568-006A	24110121-006	11/13/2024 11:18:00 AM		Radium-226 (EPA 903.0)		11/22/2024 11:34:00 AM	11/29/2024 9:41:00 AM
				Radium-228 (EPA 904.0)		11/22/2024 11:34:00 AM	11/27/2024 2:09:00 PM
24111568-007A	24110121-007	11/11/2024 1:30:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111568-008A	24110121-008	11/11/2024 2:10:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111568-009A	24110121-009	11/11/2024 12:06:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111568-010A	24110121-010	11/11/2024 12:38:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111568-011A	24110121-011	11/11/2024 11:03:00 AM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM
				Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM
24111568-012A	24110121-012	11/13/2024 12:06:00 PM		Radium-226 (EPA 903.0)		11/23/2024 8:45:00 AM	12/4/2024 9:31:52 AM

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DATES REPORT

WO#: **24111568**

06-Dec-24

Client: TEKLAB Inc,

Project: 24110121

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24111568-012A	24110121-012	11/13/2024 12:06:00 PM	Non-Potable Water	Radium-228 (EPA 904.0)		11/23/2024 8:45:00 AM	12/3/2024 4:29:04 PM

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Analytical Report

(consolidated)

WO#: **24111568**

Date Reported: **12/6/2024**

CLIENT: TEKLAB Inc,
Collection Date: 11/11/2024 12:06:00 PM
Project: 24110121
Lab ID: 24111568-009
Matrix: NON-POTABLE WATER
Client Sample ID: 24110121-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/L	± 0.240	1	12/4/2024 9:31:52 AM
Yield	0.570					1	12/4/2024 9:31:52 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	1.17	1.00		pCi/L	± 1.12	1	12/3/2024 4:29:04 PM
Yield	0.470					1	12/3/2024 4:29:04 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **24111568**

06-Dec-24

Client: TEKLAB Inc,
Project: 24110121 **BatchID:** **80533**

Sample ID: **MB-80533** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197941**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E904.0** **E903-904** Analysis Date: **11/27/2024** SeqNo: **5352672**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-80533** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197941**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E904.0** **E903-904** Analysis Date: **11/27/2024** SeqNo: **5352673**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.41	1.00	5.000	0	68.2	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-80533** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197941**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E904.0** **E903-904** Analysis Date: **11/27/2024** SeqNo: **5352674**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.37	1.00	5.000	0	67.4	50	130	3.410	1.18	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111568**

06-Dec-24

Client: TEKLAB Inc,
Project: 24110121 **BatchID:** **80533**

Sample ID: **24111225-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197941**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E904.0** **E903-904** Analysis Date: **11/27/2024** SeqNo: **5352689**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **24111363-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197941**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E904.0** **E903-904** Analysis Date: **11/27/2024** SeqNo: **5352692**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.11	1.00		0	0			0.9300	17.6	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24111568**

06-Dec-24

Client: TEKLAB Inc,
Project: 24110121 **BatchID:** **80533**

Sample ID: **MB-80533** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197943**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E903.0** **E903-904** Analysis Date: **11/29/2024** SeqNo: **5352721**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-80533** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197943**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E903.0** **E903-904** Analysis Date: **11/29/2024** SeqNo: **5352722**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.06	1.00	5.000	0	101	70	130				

Sample ID: **LCSD-80533** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197943**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E903.0** **E903-904** Analysis Date: **11/29/2024** SeqNo: **5352723**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.18	1.00	5.000	0	83.6	70	130	5.060	19.0	20	

Sample ID: **24111225-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197943**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E903.0** **E903-904** Analysis Date: **11/29/2024** SeqNo: **5352733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111568**

06-Dec-24

Client: TEKLAB Inc,
Project: 24110121 **BatchID:** **80533**

Sample ID: **24111225-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197943**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E903.0** **E903-904** Analysis Date: **11/29/2024** SeqNo: **5352733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **24111363-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/22/2024** RunNo: **197943**
Client ID: **BatchQC** Batch ID: **80533** TestNo: **E903.0** **E903-904** Analysis Date: **11/29/2024** SeqNo: **5352735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111568**

06-Dec-24

Client: TEKLAB Inc,
Project: 24110121 **BatchID:** **80535**

Sample ID: **MB-80535** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198153**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E904.0** **E903-904** Analysis Date: **12/3/2024** SeqNo: **5358242**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-80535** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198153**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E904.0** **E903-904** Analysis Date: **12/3/2024** SeqNo: **5358243**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.46	1.00	5.000	0	89.2	50	130				
Yield	0.970			0	0						

Sample ID: **LCSD-80535** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198153**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E904.0** **E903-904** Analysis Date: **12/3/2024** SeqNo: **5358244**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.32	1.00	5.000	0	106	50	130	4.460	17.6	20	
Yield	0.970			0	0			0.9700	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111568**

06-Dec-24

Client: TEKLAB Inc,
Project: 24110121 **BatchID:** **80535**

Sample ID: **24111317-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198153**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E904.0** **E903-904** Analysis Date: **12/3/2024** SeqNo: **5358249**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			0.7500	28.6		

Sample ID: **24111607-001DDUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198153**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E904.0** **E903-904** Analysis Date: **12/3/2024** SeqNo: **5358269**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	0.910			0	0			1.000	9.42		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24111568**

06-Dec-24

Client: TEKLAB Inc,
Project: 24110121 **BatchID:** **80535**

Sample ID: **MB-80535** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198160**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E903.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5358431**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.990										

Sample ID: **LCS-80535** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198160**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E903.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5358432**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.81	1.00	5.000	0	116	70	130				

Sample ID: **LCSD-80535** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198160**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E903.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5358433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.22	1.00	5.000	0	104	70	130	5.810	10.7	20	

Sample ID: **24111317-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198160**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E903.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5358438**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24111568**

06-Dec-24

Client: TEKLAB Inc,
Project: 24110121 **BatchID:** **80535**

Sample ID: **24111317-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198160**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E903.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5358438**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							0.8200	19.8	0	

Sample ID: **24111607-001DDUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **11/23/2024** RunNo: **198160**
Client ID: **BatchQC** Batch ID: **80535** TestNo: **E903.0** **E903-904** Analysis Date: **12/4/2024** SeqNo: **5358458**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	0.980							1.000	2.02	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

24111568

Teklab Inc 17.2-0.0= 17.2°C
5445 Horseshoe Lake Road 17.7-0.0= 17.7°C
Collinsville, IL 62234

Cooler Temp: 17.2-17.7°C Sampler: Client QC Level: 2

Fedex, Cooler
CS intact 11/18/24

Project# 24110121

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site. 24110121-011 report from 24110120-001.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 37435 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228		cpm					PH				
	24110121-001	11/11/24 1026	HNO3	Groundwater	✔		20					1				
	24110121-002	11/13/24 1024	HNO3	Groundwater	✔		42					1				
	24110121-003	11/11/24 1129	HNO3	Groundwater	✔		32					1				
	24110121-004	11/11/24 1227	HNO3	Groundwater	✔		24					1				
	24110121-005	11/11/24 1116	HNO3	Groundwater	✔		34					1				
	24110121-006	11/13/24 1118	HNO3	Groundwater	✔		32					1				
	24110121-007	11/11/24 1330	HNO3	Groundwater	✔		36					1				
	24110121-008	11/11/24 1410	HNO3	Groundwater	✔		22					1				
	24110121-009	11/11/24 1206	HNO3	Groundwater	✔		32					1				
	24110121-010	11/11/24 1238	HNO3	Groundwater	✔		18					1				
	24110121-011	11/11/24 1103	HNO3	Groundwater	✔		Did not receive									

*Relinquished By	Date/Time	Received By	Date/Time
			11/20/24, 1300

Teklab maintains a strict policy of client confidentiality and as such does not provide client or sampler information without proper authorization. and proprietary rights. Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

17.2-0.0 = 17.2c
17.7-0.0 = 17.7c

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Fedex, cooler
CS intact 11/18/24

Cooler Temp: 17.2-17.7 c Sampler: Client QC Level: 2

Project# 24110121

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site. 24110121-011 report from 24110120-001.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 37435 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228												
						cpm						pCi					
	24110121-012	11/13/24 1206	HNO3	Groundwater	✓	30						1					
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													

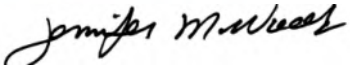
*Relinquished By	Date/Time	Received By	Date/Time
Brian Dilorello			11/20/24 1300

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Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24111568 RcptNo: 1

Logged by:	Anthony W. Britton	11/20/2024 1:00:00 PM	
Completed By:	Anthony W. Britton	11/21/2024 1:02:25 PM	
Reviewed By:	Jennifer Woolf	11/26/2024 10:57:53 AM	

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐
   No. Seal Date: 11/18/2024 Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	17.7	Good	Yes		11/18/2024	

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24111568 RcptNo: 1

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	17.2	Good	Yes		11/18/2024	

First Quarter 2025

March 31, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 25020749

Dear Eric Staley:

TEKLAB, INC received 20 samples on 2/21/2025 12:22:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25020749
Report Date: 31-Mar-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	26
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 25020749
Client Project: Ash Pond Monitoring Wells
Report Date: 31-Mar-25

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25020749
Report Date: 31-Mar-25

Cooler Receipt Temp: 9.9 °C

An employee of Teklab, Inc. collected the sample(s).

AP-14 was frozen, no sample collected.

Radium 226/228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 25020749
Client Project: Ash Pond Monitoring Wells
Report Date: 31-Mar-25

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2026	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2025	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-001 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 02/18/2025 12:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	02/18/2025 12:00	R360883
Depth to water	*	-5.00		**6.86**	ft	1	02/18/2025 12:00	R360883
Depth to water from measuring point	*	0		**9.56**	ft	1	02/18/2025 12:00	R360883
Elevation of groundwater surface	*	0		**529.94**	ft	1	02/18/2025 12:00	R360883
Measuring Point Elevation	*	0		**539.50**	ft	1	02/18/2025 12:00	R360883
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	02/18/2025 12:00	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**21**	NTU	1	02/18/2025 12:00	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**53.5**	°F	1	02/18/2025 12:00	R360883
SW-846 9040B								
pH, Field	*	1.00		**7.10**		1	02/18/2025 12:00	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**623**	µmhos/cm @25C	1	02/18/2025 12:00	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	25		**372**	mg/L	1.25	02/19/2025 10:55	R360584
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/19/2025 9:38	R360503
Chloride	NELAP	5.00		**25.4**	mg/L	10	02/19/2025 9:38	R360503
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/19/2025 9:38	R360503
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.136**	mg/L	1	02/20/2025 17:08	234945
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 17:08	234945
Boron	NELAP	0.0200		**0.126**	mg/L	1	02/20/2025 17:08	234945
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 17:08	234945
Calcium	NELAP	0.100		**64.5**	mg/L	1	02/24/2025 11:25	234945
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:08	234945
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:08	234945
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 17:08	234945
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 17:08	234945
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:19	234945
Arsenic	NELAP	0.0010		**0.0961**	mg/L	5	02/20/2025 11:19	234945
Lithium	*	0.0030		**0.0047**	mg/L	5	02/24/2025 8:08	234945
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:19	234945
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 11:19	234945
LCS recovered outside upper control limits for Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/19/2025 11:09	234976
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-002 **Client Sample ID:** AP-1

Matrix: GROUNDWATER **Collection Date:** 02/18/2025 12:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**504.29**	ft	1	02/18/2025 12:38	R360883
Depth to water	*	-5.00		**8.52**	ft	1	02/18/2025 12:38	R360883
Depth to water from measuring point	*	0		**10.79**	ft	1	02/18/2025 12:38	R360883
Elevation of groundwater surface	*	0		**524.58**	ft	1	02/18/2025 12:38	R360883
Measuring Point Elevation	*	0		**535.37**	ft	1	02/18/2025 12:38	R360883
Measuring Point Height Above Land Surface	*	0		**2.27**	ft	1	02/18/2025 12:38	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**17**	NTU	1	02/18/2025 12:38	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.8**	°F	1	02/18/2025 12:38	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.55**		1	02/18/2025 12:38	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1670**	µmhos/cm @25C	1	02/18/2025 12:38	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	33		**1600**	mg/L	1.67	02/19/2025 10:56	R360584
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/19/2025 9:49	R360503
Chloride	NELAP	5.00		**49.3**	mg/L	10	02/19/2025 9:49	R360503
Sulfate	NELAP	10.0		**834**	mg/L	10	02/19/2025 9:49	R360503
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.307**	mg/L	1	02/20/2025 17:09	234945
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 17:09	234945
Boron	NELAP	0.200		**21.7**	mg/L	10	02/25/2025 11:16	234945
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 17:09	234945
Calcium	NELAP	0.100		**245**	mg/L	1	02/24/2025 11:32	234945
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:09	234945
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:09	234945
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 17:09	234945
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 17:09	234945
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:25	234945
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:25	234945
Lithium	*	0.0030		**0.0105**	mg/L	5	02/24/2025 8:14	234945
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:25	234945
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 11:25	234945
LCS recovered outside upper control limitsfor Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/19/2025 11:12	234976
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-003 **Client Sample ID:** AP-2

Matrix: GROUNDWATER **Collection Date:** 02/18/2025 13:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	02/18/2025 13:15	R360883
Depth to water	*	-5.00		**5.37**	ft	1	02/18/2025 13:15	R360883
Depth to water from measuring point	*	0		**7.87**	ft	1	02/18/2025 13:15	R360883
Elevation of groundwater surface	*	0		**528.23**	ft	1	02/18/2025 13:15	R360883
Measuring Point Elevation	*	0		**536.10**	ft	1	02/18/2025 13:15	R360883
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	02/18/2025 13:15	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**25**	NTU	1	02/18/2025 13:15	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**52.3**	°F	1	02/18/2025 13:15	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.44**		1	02/18/2025 13:15	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1250**	µmhos/cm @25C	1	02/18/2025 13:15	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1070**	mg/L	1	02/19/2025 10:57	R360584
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/19/2025 10:01	R360503
Chloride	NELAP	5.00		**35.8**	mg/L	10	02/19/2025 10:01	R360503
Sulfate	NELAP	10.0		**397**	mg/L	10	02/19/2025 10:01	R360503
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0710**	mg/L	1	02/20/2025 17:10	234945
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 17:10	234945
Boron	NELAP	0.0200		**3.53**	mg/L	1	02/20/2025 17:10	234945
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 17:10	234945
Calcium	NELAP	0.100		**198**	mg/L	1	02/24/2025 11:33	234945
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:10	234945
Cobalt	NELAP	0.0050		**0.0140**	mg/L	1	02/24/2025 11:33	234945
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 17:10	234945
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 17:10	234945
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:31	234945
Arsenic	NELAP	0.0010		**0.0022**	mg/L	5	02/20/2025 11:31	234945
Lithium	*	0.0030		**0.0060**	mg/L	5	02/24/2025 8:19	234945
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:31	234945
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 11:31	234945
LCS recovered outside upper control limitsfor Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/19/2025 11:14	234976
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power
Work Order: 25020749
Client Project: Ash Pond Monitoring Wells
Report Date: 31-Mar-25
Lab ID: 25020749-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 02/19/2025 11:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	02/19/2025 11:54	R360883
Depth to water	*	-5.00		**7.20**	ft	1	02/19/2025 11:54	R360883
Depth to water from measuring point	*	0		**9.75**	ft	1	02/19/2025 11:54	R360883
Elevation of groundwater surface	*	0		**525.50**	ft	1	02/19/2025 11:54	R360883
Measuring Point Elevation	*	0		**535.25**	ft	1	02/19/2025 11:54	R360883
Measuring Point Height Above Land Surface	*	0		**2.55**	ft	1	02/19/2025 11:54	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**61**	NTU	1	02/19/2025 11:54	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**52.1**	°F	1	02/19/2025 11:54	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.54**		1	02/19/2025 11:54	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1270**	µmhos/cm @25C	1	02/19/2025 11:54	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	25		**1150**	mg/L	1.25	02/20/2025 11:38	R360650
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/20/2025 10:28	R360529
Chloride	NELAP	5.00		**61.5**	mg/L	10	02/20/2025 10:28	R360529
Sulfate	NELAP	10.0		**569**	mg/L	10	02/20/2025 10:28	R360529
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.120**	mg/L	1	02/20/2025 16:39	235016
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 16:39	235016
Boron	NELAP	0.0200		**12.1**	mg/L	1	02/20/2025 16:39	235016
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 16:39	235016
Calcium	NELAP	0.100		**168**	mg/L	1	02/24/2025 10:50	235016
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:39	235016
Cobalt	NELAP	0.0050		**0.0057**	mg/L	1	02/20/2025 16:39	235016
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 16:39	235016
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 16:39	235016
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 14:51	235016
Arsenic	NELAP	0.0010		**0.0137**	mg/L	5	02/20/2025 14:51	235016
Lithium	*	0.0030		**0.0052**	mg/L	5	02/20/2025 14:51	235016
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 14:51	235016
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 14:51	235016
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/20/2025 10:35	235028
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power
Work Order: 25020749
Client Project: Ash Pond Monitoring Wells
Report Date: 31-Mar-25
Lab ID: 25020749-005
Client Sample ID: AP-4
Matrix: GROUNDWATER
Collection Date: 02/18/2025 10:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.19**	ft	1	02/18/2025 10:38	R360883
Depth to water	*	-5.00		**7.54**	ft	1	02/18/2025 10:38	R360883
Depth to water from measuring point	*	0		**10.68**	ft	1	02/18/2025 10:38	R360883
Elevation of groundwater surface	*	0		**544.92**	ft	1	02/18/2025 10:38	R360883
Measuring Point Elevation	*	0		**555.60**	ft	1	02/18/2025 10:38	R360883
Measuring Point Height Above Land Surface	*	0		**3.14**	ft	1	02/18/2025 10:38	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**18**	NTU	1	02/18/2025 10:38	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.8**	°F	1	02/18/2025 10:38	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.78**		1	02/18/2025 10:38	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**786**	µmhos/cm @25C	1	02/18/2025 10:38	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	33		**508**	mg/L	1.67	02/19/2025 10:57	R360584
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/19/2025 10:13	R360503
Chloride	NELAP	5.00		**12.4**	mg/L	10	02/19/2025 10:13	R360503
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/19/2025 10:13	R360503
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.378**	mg/L	1	02/20/2025 17:10	234945
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 17:10	234945
Boron	NELAP	0.0200		**0.0913**	mg/L	1	02/20/2025 17:10	234945
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 17:10	234945
Calcium	NELAP	0.100		**113**	mg/L	1	02/24/2025 11:34	234945
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:10	234945
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:10	234945
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 17:10	234945
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 17:10	234945
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0014**	mg/L	5	02/21/2025 12:06	234945
Arsenic	NELAP	0.0010		**0.0210**	mg/L	5	02/20/2025 11:36	234945
Lithium	*	0.0030		**0.0087**	mg/L	5	02/24/2025 8:25	234945
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:36	234945
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 11:36	234945
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/19/2025 11:16	234976
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-006 **Client Sample ID:** AP-5

Matrix: GROUNDWATER **Collection Date:** 02/18/2025 10:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**552.63**	ft	1	02/18/2025 10:10	R360883
Depth to water	*	-5.00		**12.68**	ft	1	02/18/2025 10:10	R360883
Depth to water from measuring point	*	0		**14.98**	ft	1	02/18/2025 10:10	R360883
Elevation of groundwater surface	*	0		**568.92**	ft	1	02/18/2025 10:10	R360883
Measuring Point Elevation	*	0		**583.90**	ft	1	02/18/2025 10:10	R360883
Measuring Point Height Above Land Surface	*	0		**2.30**	ft	1	02/18/2025 10:10	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.7**	NTU	1	02/18/2025 10:10	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**53.4**	°F	1	02/18/2025 10:10	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.83**		1	02/18/2025 10:10	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**662**	µmhos/cm @25C	1	02/18/2025 10:10	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**474**	mg/L	1	02/19/2025 10:57	R360584
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/19/2025 11:23	R360503
Chloride	NELAP	5.00		**8.40**	mg/L	10	02/19/2025 11:23	R360503
Sulfate	NELAP	10.0		**59.7**	mg/L	10	02/19/2025 11:23	R360503
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0532**	mg/L	1	02/20/2025 17:11	234945
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 17:11	234945
Boron	NELAP	0.0200		**0.0435**	mg/L	1	02/20/2025 17:11	234945
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 17:11	234945
Calcium	NELAP	0.100		**97.3**	mg/L	1	02/24/2025 11:35	234945
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:11	234945
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:11	234945
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 17:11	234945
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 17:11	234945
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:42	234945
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:42	234945
Lithium	*	0.0030		**0.0043**	mg/L	5	02/24/2025 9:56	234945
Selenium	NELAP	0.0010		**0.0011**	mg/L	5	02/20/2025 11:42	234945
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 11:42	234945
LCS recovered outside upper control limitsfor Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/19/2025 11:18	234976
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-007 **Client Sample ID:** AP-6

Matrix: GROUNDWATER **Collection Date:** 02/18/2025 11:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.20**	ft	1	02/18/2025 11:32	R360883
Depth to water	*	-5.00		**6.14**	ft	1	02/18/2025 11:32	R360883
Depth to water from measuring point	*	0		**8.56**	ft	1	02/18/2025 11:32	R360883
Elevation of groundwater surface	*	0		**529.26**	ft	1	02/18/2025 11:32	R360883
Measuring Point Elevation	*	0		**537.82**	ft	1	02/18/2025 11:32	R360883
Measuring Point Height Above Land Surface	*	0		**2.42**	ft	1	02/18/2025 11:32	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.8**	NTU	1	02/18/2025 11:32	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**52.0**	°F	1	02/18/2025 11:32	R360883
SW-846 9040B								
pH, Field	*	1.00		**7.21**		1	02/18/2025 11:32	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**617**	µmhos/cm @25C	1	02/18/2025 11:32	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**398**	mg/L	1	02/19/2025 10:59	R360584
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**0.54**	mg/L	10	02/19/2025 11:34	R360503
Chloride	NELAP	5.00		**33.0**	mg/L	10	02/19/2025 11:34	R360503
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/19/2025 11:34	R360503
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.137**	mg/L	1	02/20/2025 17:12	234945
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 17:12	234945
Boron	NELAP	0.0200		**0.228**	mg/L	1	02/20/2025 17:12	234945
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 17:12	234945
Calcium	NELAP	0.100		**64.4**	mg/L	1	02/24/2025 11:35	234945
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:12	234945
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:12	234945
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 17:12	234945
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 17:12	234945
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 12:28	234945
Arsenic	NELAP	0.0010		**0.0120**	mg/L	5	02/20/2025 12:28	234945
Lithium	*	0.0030		**0.0063**	mg/L	5	02/24/2025 10:01	234945
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 12:28	234945
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 12:28	234945
LCS recovered outside upper control limitsfor Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/19/2025 11:25	234976
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power
Work Order: 25020749
Client Project: Ash Pond Monitoring Wells
Report Date: 31-Mar-25
Lab ID: 25020749-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 02/20/2025 11:42

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	02/20/2025 11:42	R360883
Depth to water	*	-5.00		**9.26**	ft	1	02/20/2025 11:42	R360883
Depth to water from measuring point	*	0		**11.92**	ft	1	02/20/2025 11:42	R360883
Elevation of groundwater surface	*	0		**527.10**	ft	1	02/20/2025 11:42	R360883
Measuring Point Elevation	*	0		**539.02**	ft	1	02/20/2025 11:42	R360883
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	02/20/2025 11:42	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**50**	NTU	1	02/20/2025 11:42	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**53.5**	°F	1	02/20/2025 11:42	R360883
SW-846 9040B								
pH, Field	*	1.00		**7.38**		1	02/20/2025 11:42	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**795**	µmhos/cm @25C	1	02/20/2025 11:42	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**430**	mg/L	1	02/21/2025 14:52	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 11:39	R360629
Chloride	NELAP	5.00		**51.7**	mg/L	10	02/21/2025 11:39	R360629
Sulfate	NELAP	10.0		**11.6**	mg/L	10	02/21/2025 11:39	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.105**	mg/L	1	02/24/2025 13:34	235068
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 13:34	235068
Boron	NELAP	0.0200		**0.244**	mg/L	1	02/24/2025 13:34	235068
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 13:34	235068
Calcium	NELAP	0.100		**57.6**	mg/L	1	02/24/2025 13:34	235068
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 13:34	235068
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 13:34	235068
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 13:34	235068
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 13:34	235068
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:30	235068
Arsenic	NELAP	0.0010		**0.0248**	mg/L	5	02/25/2025 8:04	235068
Lithium	*	0.0030		**0.0056**	mg/L	5	02/25/2025 8:04	235068
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:30	235068
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 11:30	235068
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:12	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power
Work Order: 25020749
Client Project: Ash Pond Monitoring Wells
Report Date: 31-Mar-25
Lab ID: 25020749-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 02/19/2025 12:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	02/19/2025 12:26	R360883
Depth to water	*	-5.00		**2.61**	ft	1	02/19/2025 12:26	R360883
Depth to water from measuring point	*	0		**5.51**	ft	1	02/19/2025 12:26	R360883
Elevation of groundwater surface	*	0		**531.69**	ft	1	02/19/2025 12:26	R360883
Measuring Point Elevation	*	0		**537.20**	ft	1	02/19/2025 12:26	R360883
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	02/19/2025 12:26	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.2**	NTU	1	02/19/2025 12:26	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**49.2**	°F	1	02/19/2025 12:26	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.89**		1	02/19/2025 12:26	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**850**	µmhos/cm @25C	1	02/19/2025 12:26	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	25		**548**	mg/L	1.25	02/20/2025 11:39	R360650
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/20/2025 10:39	R360529
Chloride	NELAP	5.00		**22.5**	mg/L	10	02/20/2025 10:39	R360529
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/20/2025 10:39	R360529
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.355**	mg/L	1	02/20/2025 16:40	235016
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 16:40	235016
Boron	NELAP	0.0200		**0.0784**	mg/L	1	02/24/2025 10:52	235016
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 16:40	235016
Calcium	NELAP	0.100		**91.3**	mg/L	1	02/24/2025 10:52	235016
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:40	235016
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:40	235016
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 16:40	235016
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 16:40	235016
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 14:57	235016
Arsenic	NELAP	0.0010		**0.0487**	mg/L	5	02/20/2025 14:57	235016
Lithium	*	0.0030		**0.0080**	mg/L	5	02/20/2025 14:57	235016
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 14:57	235016
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 14:57	235016
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/20/2025 10:52	235028
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-010 **Client Sample ID:** AP-9

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 12:16

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.70**	ft	1	02/20/2025 12:16	R360883
Depth to water	*	-5.00		**10.19**	ft	1	02/20/2025 12:16	R360883
Depth to water from measuring point	*	0		**13.29**	ft	1	02/20/2025 12:16	R360883
Elevation of groundwater surface	*	0		**527.01**	ft	1	02/20/2025 12:16	R360883
Measuring Point Elevation	*	0		**540.30**	ft	1	02/20/2025 12:16	R360883
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	02/20/2025 12:16	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**54**	NTU	1	02/20/2025 12:16	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**52.2**	°F	1	02/20/2025 12:16	R360883
SW-846 9040B								
pH, Field	*	1.00		**7.02**		1	02/20/2025 12:16	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1080**	µmhos/cm @25C	1	02/20/2025 12:16	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	200		**880**	mg/L	10	02/21/2025 14:53	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 11:51	R360629
Chloride	NELAP	5.00		**23.5**	mg/L	10	02/21/2025 11:51	R360629
Sulfate	NELAP	10.0		**16.1**	mg/L	10	02/21/2025 11:51	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.431**	mg/L	1	02/24/2025 14:38	235068
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 14:38	235068
Boron	NELAP	0.0200		**0.0874**	mg/L	1	02/24/2025 14:38	235068
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 14:38	235068
Calcium	NELAP	0.100		**98.4**	mg/L	1	02/24/2025 14:38	235068
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 14:38	235068
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 14:38	235068
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 14:38	235068
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 14:38	235068
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:36	235068
Arsenic	NELAP	0.0010		**0.0023**	mg/L	5	02/25/2025 8:10	235068
Lithium	*	0.0030		**0.0064**	mg/L	5	02/25/2025 8:10	235068
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:36	235068
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 11:36	235068
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:14	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power
Work Order: 25020749
Client Project: Ash Pond Monitoring Wells
Report Date: 31-Mar-25
Lab ID: 25020749-011
Client Sample ID: AP-10
Matrix: GROUNDWATER
Collection Date: 02/19/2025 12:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**499.43**	ft	1	02/19/2025 12:53	R360883
Depth to water	*	-5.00		**0.94**	ft	1	02/19/2025 12:53	R360883
Depth to water from measuring point	*	0		**4.04**	ft	1	02/19/2025 12:53	R360883
Elevation of groundwater surface	*	0		**533.46**	ft	1	02/19/2025 12:53	R360883
Measuring Point Elevation	*	0		**537.50**	ft	1	02/19/2025 12:53	R360883
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	02/19/2025 12:53	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.5**	NTU	1	02/19/2025 12:53	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**49.5**	°F	1	02/19/2025 12:53	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.67**		1	02/19/2025 12:53	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1090**	µmhos/cm @25C	1	02/19/2025 12:53	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	25		**788**	mg/L	1.25	02/20/2025 11:39	R360650
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/20/2025 10:51	R360529
Chloride	NELAP	5.00		**24.4**	mg/L	10	02/20/2025 10:51	R360529
Sulfate	NELAP	10.0		**84.4**	mg/L	10	02/20/2025 10:51	R360529
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.565**	mg/L	1	02/20/2025 16:40	235016
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 16:40	235016
Boron	NELAP	0.0200		**3.36**	mg/L	1	02/20/2025 16:40	235016
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 16:40	235016
Calcium	NELAP	0.100		**127**	mg/L	1	02/24/2025 10:52	235016
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:40	235016
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:40	235016
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 16:40	235016
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 16:40	235016
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 15:03	235016
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 15:03	235016
Lithium	*	0.0030		**0.0082**	mg/L	5	02/20/2025 15:03	235016
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 15:03	235016
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 15:03	235016
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/20/2025 10:54	235028
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power
Work Order: 25020749
Client Project: Ash Pond Monitoring Wells
Report Date: 31-Mar-25
Lab ID: 25020749-012
Client Sample ID: AP-11
Matrix: GROUNDWATER
Collection Date: 02/20/2025 11:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.15**	ft	1	02/20/2025 11:56	R360883
Depth to water	*	-5.00		**12.44**	ft	1	02/20/2025 11:56	R360883
Depth to water from measuring point	*	0		**15.24**	ft	1	02/20/2025 11:56	R360883
Elevation of groundwater surface	*	0		**522.86**	ft	1	02/20/2025 11:56	R360883
Measuring Point Elevation	*	0		**538.10**	ft	1	02/20/2025 11:56	R360883
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	02/20/2025 11:56	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**14**	NTU	1	02/20/2025 11:56	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**48.9**	°F	1	02/20/2025 11:56	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.40**		1	02/20/2025 11:56	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**706**	µmhos/cm @25C	1	02/20/2025 11:56	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**740**	mg/L	1	02/21/2025 14:54	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 12:37	R360629
Chloride	NELAP	5.00		**95.1**	mg/L	10	02/21/2025 12:37	R360629
Sulfate	NELAP	10.0		**65.5**	mg/L	10	02/21/2025 12:37	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.134**	mg/L	1	02/24/2025 14:39	235068
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 14:39	235068
Boron	NELAP	0.0200		**0.221**	mg/L	1	02/24/2025 14:39	235068
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 14:39	235068
Calcium	NELAP	0.100		**135**	mg/L	1	02/24/2025 14:39	235068
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 14:39	235068
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 14:39	235068
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 14:39	235068
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 14:39	235068
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:41	235068
Arsenic	NELAP	0.0010		**0.0015**	mg/L	5	02/25/2025 8:15	235068
Lithium	*	0.0030		**0.0040**	mg/L	5	02/25/2025 8:15	235068
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:41	235068
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 11:41	235068
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:21	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power
Work Order: 25020749
Client Project: Ash Pond Monitoring Wells
Report Date: 31-Mar-25
Lab ID: 25020749-013
Client Sample ID: AP-12
Matrix: GROUNDWATER
Collection Date: 02/20/2025 13:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**510.30**	ft	1	02/20/2025 13:06	R360883
Depth to water	*	-5.00		**15.18**	ft	1	02/20/2025 13:06	R360883
Depth to water from measuring point	*	0		**18.08**	ft	1	02/20/2025 13:06	R360883
Elevation of groundwater surface	*	0		**522.62**	ft	1	02/20/2025 13:06	R360883
Measuring Point Elevation	*	0		**540.70**	ft	1	02/20/2025 13:06	R360883
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	02/20/2025 13:06	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.6**	NTU	1	02/20/2025 13:06	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**51.3**	°F	1	02/20/2025 13:06	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.55**		1	02/20/2025 13:06	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1020**	µmhos/cm @25C	1	02/20/2025 13:06	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1250**	mg/L	1	02/21/2025 14:54	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 12:49	R360629
Chloride	NELAP	5.00		**114**	mg/L	10	02/21/2025 12:49	R360629
Sulfate	NELAP	10.0		**433**	mg/L	10	02/21/2025 12:49	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0450**	mg/L	1	02/24/2025 14:41	235068
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 14:41	235068
Boron	NELAP	0.0200		**0.0217**	mg/L	1	02/24/2025 14:41	235068
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 14:41	235068
Calcium	NELAP	0.100		**197**	mg/L	1	02/24/2025 14:41	235068
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 14:41	235068
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 14:41	235068
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 14:41	235068
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 14:41	235068
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:47	235068
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2025 8:21	235068
Lithium	*	0.0030		**0.0057**	mg/L	5	02/25/2025 8:21	235068
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:47	235068
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 11:47	235068
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:28	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-014 **Client Sample ID:** AP-13

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 13:41

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.00**	ft	1	02/20/2025 13:41	R360883
Depth to water	*	-5.00		**15.04**	ft	1	02/20/2025 13:41	R360883
Depth to water from measuring point	*	0		**18.44**	ft	1	02/20/2025 13:41	R360883
Elevation of groundwater surface	*	0		**523.56**	ft	1	02/20/2025 13:41	R360883
Measuring Point Elevation	*	0		**542.00**	ft	1	02/20/2025 13:41	R360883
Measuring Point Height Above Land Surface	*	0		**3.40**	ft	1	02/20/2025 13:41	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.7**	NTU	1	02/20/2025 13:41	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**50.7**	°F	1	02/20/2025 13:41	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.69**		1	02/20/2025 13:41	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**527**	µmhos/cm @25C	1	02/20/2025 13:41	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	200		**620**	mg/L	10	02/21/2025 14:55	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 13:01	R360629
Chloride	NELAP	5.00		**26.8**	mg/L	10	02/21/2025 13:01	R360629
Sulfate	NELAP	10.0		**94.5**	mg/L	10	02/21/2025 13:01	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.118**	mg/L	1	02/24/2025 14:42	235068
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 14:42	235068
Boron	NELAP	0.0200		**0.0369**	mg/L	1	02/24/2025 14:42	235068
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 14:42	235068
Calcium	NELAP	0.100	S	**101**	mg/L	1	02/24/2025 14:42	235068
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 14:42	235068
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 14:42	235068
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 14:42	235068
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 14:42	235068
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 13:26	235068
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2025 8:32	235068
Lithium	*	0.0030		**0.0088**	mg/L	5	02/25/2025 8:32	235068
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 13:26	235068
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 13:26	235068
CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:30	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-016 **Client Sample ID:** T-1

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 14:13

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**512.70**	ft	1	02/20/2025 14:13	R360883
Depth to water	*	-5.00		**13.51**	ft	1	02/20/2025 14:13	R360883
Depth to water from measuring point	*	0		**13.84**	ft	1	02/20/2025 14:13	R360883
Elevation of groundwater surface	*	0		**521.81**	ft	1	02/20/2025 14:13	R360883
Measuring Point Elevation	*	0		**535.65**	ft	1	02/20/2025 14:13	R360883
Measuring Point Height Above Land Surface	*	0		**0.33**	ft	1	02/20/2025 14:13	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**12**	NTU	1	02/20/2025 14:13	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**50.6**	°F	1	02/20/2025 14:13	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.59**		1	02/20/2025 14:13	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**955**	µmhos/cm @25C	1	02/20/2025 14:13	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1010**	mg/L	1	02/21/2025 14:56	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 13:36	R360629
Chloride	NELAP	5.00		**220**	mg/L	10	02/21/2025 13:36	R360629
Sulfate	NELAP	10.0		**163**	mg/L	10	02/21/2025 13:36	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0691**	mg/L	1	02/24/2025 10:02	235106
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 10:02	235106
Boron	NELAP	0.0200		**0.170**	mg/L	1	02/24/2025 10:02	235106
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 10:02	235106
Calcium	NELAP	0.100		**157**	mg/L	1	02/24/2025 10:02	235106
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 10:02	235106
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/25/2025 11:20	235106
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 10:02	235106
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 10:02	235106
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 13:09	235106
Arsenic	NELAP	0.0010		**0.0023**	mg/L	5	02/24/2025 13:09	235106
Lithium	*	0.0030		**0.0142**	mg/L	5	02/25/2025 8:27	235106
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2025 8:27	235106
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 13:09	235106
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:32	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-017 **Client Sample ID:** T-2

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 12:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.18**	ft	1	02/20/2025 12:30	R360883
Depth to water	*	-5.00		**23.25**	ft	1	02/20/2025 12:30	R360883
Depth to water from measuring point	*	0		**25.65**	ft	1	02/20/2025 12:30	R360883
Elevation of groundwater surface	*	0		**523.97**	ft	1	02/20/2025 12:30	R360883
Measuring Point Elevation	*	0		**549.62**	ft	1	02/20/2025 12:30	R360883
Measuring Point Height Above Land Surface	*	0		**2.40**	ft	1	02/20/2025 12:30	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**11**	NTU	1	02/20/2025 12:30	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**50.0**	°F	1	02/20/2025 12:30	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.53**		1	02/20/2025 12:30	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1290**	µmhos/cm @25C	1	02/20/2025 12:30	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1270**	mg/L	1	02/21/2025 14:57	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 13:47	R360629
Chloride	NELAP	5.00		**500**	mg/L	10	02/21/2025 13:47	R360629
Sulfate	NELAP	10.0		**135**	mg/L	10	02/21/2025 13:47	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.217**	mg/L	1	02/24/2025 10:02	235106
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 10:02	235106
Boron	NELAP	0.0200		**0.0466**	mg/L	1	02/24/2025 10:02	235106
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 10:02	235106
Calcium	NELAP	0.100		**210**	mg/L	1	02/24/2025 10:02	235106
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 10:02	235106
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 10:02	235106
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 10:02	235106
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 10:02	235106
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 13:14	235106
Arsenic	NELAP	0.0010		**0.0073**	mg/L	5	02/24/2025 13:14	235106
Lithium	*	0.0030		**0.0314**	mg/L	5	02/25/2025 9:53	235106
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2025 9:53	235106
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 13:14	235106
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:35	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-018 **Client Sample ID:** T-4

Matrix: GROUNDWATER **Collection Date:** 02/19/2025 14:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**521.52**	ft	1	02/19/2025 14:00	R360883
Depth to water	*	-5.00		**16.03**	ft	1	02/19/2025 14:00	R360883
Depth to water from measuring point	*	0		**18.41**	ft	1	02/19/2025 14:00	R360883
Elevation of groundwater surface	*	0		**530.53**	ft	1	02/19/2025 14:00	R360883
Measuring Point Elevation	*	0		**548.94**	ft	1	02/19/2025 14:00	R360883
Measuring Point Height Above Land Surface	*	0		**2.38**	ft	1	02/19/2025 14:00	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**56**	NTU	1	02/19/2025 14:00	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**49.4**	°F	1	02/19/2025 14:00	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.64**		1	02/19/2025 14:00	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**520**	µmhos/cm @25C	1	02/19/2025 14:00	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**472**	mg/L	1	02/20/2025 11:40	R360650
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/20/2025 11:02	R360529
Chloride	NELAP	5.00		**ND**	mg/L	10	02/20/2025 11:02	R360529
Sulfate	NELAP	10.0		**121**	mg/L	10	02/20/2025 11:02	R360529
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0500**	mg/L	1	02/20/2025 16:41	235016
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 16:41	235016
Boron	NELAP	0.0200		**0.0454**	mg/L	1	02/24/2025 10:54	235016
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 16:41	235016
Calcium	NELAP	0.100		**89.2**	mg/L	1	02/24/2025 10:54	235016
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:41	235016
Cobalt	NELAP	0.0050		**0.0052**	mg/L	1	02/20/2025 16:41	235016
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 16:41	235016
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 16:41	235016
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 15:09	235016
Arsenic	NELAP	0.0010		**0.0049**	mg/L	5	02/20/2025 15:09	235016
Lithium	*	0.0030		**0.0147**	mg/L	5	02/20/2025 15:09	235016
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 15:09	235016
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 15:09	235016
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/20/2025 10:56	235028
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-019 **Client Sample ID:** T-5

Matrix: GROUNDWATER **Collection Date:** 02/19/2025 12:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**518.32**	ft	1	02/19/2025 12:29	R360883
Depth to water	*	-5.00		**5.48**	ft	1	02/19/2025 12:29	R360883
Depth to water from measuring point	*	0		**7.99**	ft	1	02/19/2025 12:29	R360883
Elevation of groundwater surface	*	0		**532.67**	ft	1	02/19/2025 12:29	R360883
Measuring Point Elevation	*	0		**540.66**	ft	1	02/19/2025 12:29	R360883
Measuring Point Height Above Land Surface	*	0		**2.51**	ft	1	02/19/2025 12:29	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.7**	NTU	1	02/19/2025 12:29	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**43.1**	°F	1	02/19/2025 12:29	R360883
SW-846 9040B								
pH, Field	*	1.00		**6.72**		1	02/19/2025 12:29	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**448**	µmhos/cm @25C	1	02/19/2025 12:29	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**374**	mg/L	1	02/20/2025 11:40	R360650
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/20/2025 11:37	R360529
Chloride	NELAP	5.00		**ND**	mg/L	10	02/20/2025 11:37	R360529
Sulfate	NELAP	10.0		**40.7**	mg/L	10	02/20/2025 11:37	R360529
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0535**	mg/L	1	02/20/2025 16:42	235016
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 16:42	235016
Boron	NELAP	0.0200		**0.0608**	mg/L	1	02/20/2025 16:42	235016
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 16:42	235016
Calcium	NELAP	0.100		**70.1**	mg/L	1	02/24/2025 11:08	235016
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:42	235016
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:42	235016
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 16:42	235016
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 16:42	235016
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 15:16	235016
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2025 16:26	235016
Lithium	*	0.0030		**0.0101**	mg/L	5	02/20/2025 15:16	235016
Selenium	NELAP	0.0010		**0.0012**	mg/L	5	02/21/2025 16:26	235016
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 15:16	235016
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/20/2025 10:59	235028
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020749

Client Project: Ash Pond Monitoring Wells **Report Date:** 31-Mar-25

Lab ID: 25020749-020 **Client Sample ID:** T-6

Matrix: GROUNDWATER **Collection Date:** 02/19/2025 13:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**494.70**	ft	1	02/19/2025 13:00	R360883
Depth to water	*	-5.00		**7.44**	ft	1	02/19/2025 13:00	R360883
Depth to water from measuring point	*	0		**9.80**	ft	1	02/19/2025 13:00	R360883
Elevation of groundwater surface	*	0		**528.52**	ft	1	02/19/2025 13:00	R360883
Measuring Point Elevation	*	0		**538.32**	ft	1	02/19/2025 13:00	R360883
Measuring Point Height Above Land Surface	*	0		**2.36**	ft	1	02/19/2025 13:00	R360883
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**29**	NTU	1	02/19/2025 13:00	R360883
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**45.9**	°F	1	02/19/2025 13:00	R360883
SW-846 9040B								
pH, Field	*	1.00		**7.30**		1	02/19/2025 13:00	R360883
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**661**	µmhos/cm @25C	1	02/19/2025 13:00	R360883
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**530**	mg/L	1	02/20/2025 11:41	R360650
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/20/2025 11:49	R360529
Chloride	NELAP	5.00		**18.9**	mg/L	10	02/20/2025 11:49	R360529
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/20/2025 11:49	R360529
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.166**	mg/L	1	02/20/2025 16:43	235016
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 16:43	235016
Boron	NELAP	0.0200		**0.187**	mg/L	1	02/20/2025 16:43	235016
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 16:43	235016
Calcium	NELAP	0.100		**82.2**	mg/L	1	02/24/2025 11:08	235016
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:43	235016
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:43	235016
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 16:43	235016
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 16:43	235016
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 16:06	235016
Arsenic	NELAP	0.0010		**0.0037**	mg/L	5	02/20/2025 16:06	235016
Lithium	*	0.0030		**0.0098**	mg/L	5	02/20/2025 16:06	235016
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 16:06	235016
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 16:06	235016
CCV recovered outside the upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/20/2025 11:01	235028
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25020749
Report Date: 31-Mar-25

Carrier: Justin Colp

Received By: AMD

Completed by: Amber Dilallo
On: 18-Feb-25

Reviewed by: Ellie Hopkins
On: 21-Feb-25

Pages to follow: Chain of custody 6 Extra pages included 61

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 9.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Samples were received on 2/18/25 at 1500 on ice [9.9, 11.5C - LTG#5]. pH strip #101358. - NR/amberdilallo - 2/18/2025 3:21:57 PM

Samples were received on 2/19/25 at 1550 on ice [6.9C - LTG#9]. pH strip #101358. - CF/amberdilallo - 2/19/2025 4:10:24 PM

Samples were received on 2/20/25 at 15:55 on ice [temp5.5C, 6.7 - LTG#9]. pH# 101358. Added nitric acid (102194) to AP-7 and AP-9. - EK/lhenson - 2/20/2025 4:21:47 PM

Sample AP-14 COC was received on 12/21/25 at 1222. No sample due to location being frozen. - lhenson - 2/21/2025 12:55:27 PM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25020749

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE #1 9.8 °C #2 11.5 °C AS
Preserved in: [ ] LAB [X] FIELD
FOR LAB USE ONLY
LAB NOTES: 10837 2/18

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity								
25020749-001	RW-3	2-18-25 / 1200	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
002	AP-1	2-18-25 / 1238	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
003	AP-2	2-18-25 / 1315	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
005	AP-4	2-18-25 / 1038	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
006	AP-5	2-18-25 / 1010	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
007	AP-6	2-18-25 / 1132	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓								

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	2-18-25 1500	Amber Qualls	2/18/25 1500

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25020749

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 6.9 °C #9
Preserved in: [ ] LAB [X] FIELD
LAB NOTES: PH✓101358

FOR LAB USE ONLY
CF 2/19/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Glp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25020749-001	RW-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3	2-19-25 / 1154	Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8	2-19-25 / 1226	Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10	2-19-25 / 1253	Groundwater	1	2								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	2-19 / 1550	Carli Fenton	2/19/25 15:50

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25020749

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Culp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25020749-012	AP-11		Groundwater	1	2								✔	✔	✔	✔	✔	✔
013	AP-12		Groundwater	1	2								✔	✔	✔	✔	✔	✔
014	AP-13		Groundwater	1	2								✔	✔	✔	✔	✔	✔
015	AP-14		Groundwater	1	2								✔	✔	✔	✔	✔	✔
016	T-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
017	T-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
018	T-4	2-14-25 / 1400	Groundwater	1	2								✔	✔	✔	✔	✔	✔
019	T-5	2-14-25 / 1229	Groundwater	1	2								✔	✔	✔	✔	✔	✔
020	T-6	2-14-25 / 1300	Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	2-19 / 1550	[signature]	2/19/25 15:00

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25020749

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

5.5

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 6.7 °C (9)
Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: Added HNO3 (102194) to AP-7 2 liter and PH/101358 AP-9 2 liter. Ex 2/20/2025

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Cdp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25020749-001	RW-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	AP-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	AP-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	AP-3		Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	AP-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	AP-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	AP-7	7-20-25 / 1142	Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AP-8		Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AP-9	7-20-25 / 1216	Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	AP-10		Groundwater	1	2								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	2-20 / 1555		2/20/25 1555

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25020749

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Culp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25020749-012	AP-11	2/20/25 1156	Groundwater	1	2								✔	✔	✔	✔	✔	✔
013	AP-12	2/20/25 1306	Groundwater	1	2								✔	✔	✔	✔	✔	✔
014	AP-13	2/20/25 1341	Groundwater	1	2								✔	✔	✔	✔	✔	✔
015	AP-14		Groundwater	1	2								✔	✔	✔	✔	✔	✔
016	T-1	2/20/25 1413	Groundwater	1	2								✔	✔	✔	✔	✔	✔
017	T-2	2/20/25 1230	Groundwater	1	2								✔	✔	✔	✔	✔	✔
018	T-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
019	T-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔
020	T-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	2-20 / 1555	[signature]	2/20/25 1555

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25020749

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE NA °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Culp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25020749-012	AP-11		Groundwater	1	2								✔	✔	✔	✔	✔	✔
013	AP-12		Groundwater	1	2								✔	✔	✔	✔	✔	✔
014	AP-13		Groundwater	1	2								✔	✔	✔	✔	✔	✔
015	AP-14 NO Sample	2-21-25 / Frozen	Groundwater	1	2								✔	✔	✔	✔	✔	✔
016	T-1 Frozen @ 2.24)		Groundwater	1	2								✔	✔	✔	✔	✔	✔
017	T-2		Groundwater	1	2								✔	✔	✔	✔	✔	✔
018	T-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
019	T-5		Groundwater	1	2								✔	✔	✔	✔	✔	✔
020	T-6		Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
Jeremy Cantrell	2/21/25 1222	Emily Kassakoski	2/21/25 1222

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	RW-3
Project Location:	Springfield, IL	**Sample ID:**	001
W.O. Number (s):	25020749	**Date (s):**	2/18/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 8 °F Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	No

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/18/2025 11:44

Static Water Level: 9.56 feet below TOC

Total Depth: 44.01 feet below TOC

Water Column: 34.45 feet

Purging Activities

Purged By: JC Purge Date: 2/18/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.45 ft. x 0.022 = 0.76 L x 3 Vol. = 2.28 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: lt brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:45	0.0	333	purge start time						
11:48	1.0	↓	7.08	616.30	11.66	1.23	-125.20	41.78	
11:51	2.0		7.08	629.50	11.89	0.70	-143.50	48.63	
11:54	3.0		7.09	631.70	11.94	0.58	-151.00	29.58	
11:57	4.0		7.10	629.70	11.94	0.54	-154.20	25.24	
12:00	5.0		7.10	622.80	11.96	0.54	-154.20	20.73	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/18/2025 12:00

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.10 pH 622.80 Spec. Cond. 11.96 Temp

Field Filtered: No Filter Type:

Water Level: 15.15 feet below TOC Drawdown: 5.59 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp **Date:** 2/18/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25020749
Monitoring Point: AP-1
Sample ID: 002
Date (s): 2/18/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 10 °F Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/18/2025 12:18
Static Water Level: 10.79 feet below TOC
Total Depth: 31.08 feet below TOC
Water Column: 20.29 feet

Purging Activities

Purged By: JC Purge Date: 2/18/2025
Purge Method: Bladder Pump Well Diameter: 2"
Purge Volume Calculation (L): 20.29 ft. x 0.022 = 0.45 L x 3 Vol. = 1.35 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.50 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:18	0.0	325	purge start time						
12:23	1.6	↓	6.54	1,482.30	12.09	1.18	-66.20	25.12	
12:26	2.6		6.53	1,548.60	12.40	0.76	-78.00	22.97	
12:29	3.6		6.53	1,599.00	12.40	0.59	-84.80	28.22	
12:32	4.6		6.54	1,644.70	12.49	0.54	-88.60	24.22	
12:35	5.5		6.55	1,666.90	12.48	0.52	-91.20	21.71	
12:38	6.5		6.55	1,674.70	12.64	0.49	-93.10	16.80	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/18/2025 12:38
Sample Method: Low Flow Sample Equipment: Bladder Pump
Sample Parameters: 6.55 pH 1,674.70 Spec. Cond. 12.64 Temp
Field Filtered: No Filter Type:
Water Level: 11.14 feet below TOC Drawdown: 0.35 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp **Date:** 2/18/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-2
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	25020749	**Date (s):**	2/18/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 11 °F Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/18/2025 12:49

Static Water Level: 7.87 feet below TOC

Total Depth: 21.33 feet below TOC

Water Column: 13.46 feet

Purging Activities

Purged By: JC Purge Date: 2/18/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 13.46 ft. x 0.022 = 0.3 L x 3 Vol. = 0.9 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 8.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: lt brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:50	0.0	320	purge start time						
12:57	2.2	↓	6.45	1,232.60	10.86	0.94	6.10	135.27	
13:00	3.2		6.45	1,236.30	10.82	0.78	9.00	86.86	
13:03	4.2		6.44	1,238.60	11.21	0.69	10.50	62.32	
13:06	5.1		6.44	1,238.00	11.62	0.63	11.50	43.73	
13:09	6.1		6.44	1,245.20	11.08	0.60	12.40	32.16	
13:12	7.0		6.44	1,248.50	11.15	0.57	13.10	29.84	
13:15	8.0		6.44	1,254.10	11.29	0.56	13.50	25.46	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/18/2025 13:15

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.44 pH 1,254.10 Spec. Cond. 11.29 Temp

Field Filtered: No Filter Type:

Water Level: 7.94 feet below TOC Drawdown: 0.07 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp **Date:** 2/18/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25020749
Monitoring Point: AP-3
Sample ID: 004
Date (s): 2/19/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 14 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/19/2025 11:09
Static Water Level: 9.75 feet below TOC
Total Depth: 20.80 feet below TOC
Water Column: 11.05 feet

Purging Activities

Purged By: JC — Purge Date: 2/19/2025
Purge Method: Bladder Pump — Well Diameter: 2"
Purge Volume Calculation (L): 11.05 ft. x 0.022 = 0.24 L x 3 Vol. = 0.72 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 14.00 L
Physical appearance of purge water: Cloudy — Odor: None — Color: lt brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:09	0.0	311	purge start time						
11:15	1.9	↓	6.48	1,265.80	11.69	1.24	-23.70	267.20	
11:18	2.8		6.49	1,263.40	11.69	1.17	-33.90	240.68	
11:21	3.7		6.51	1,262.30	11.63	1.16	-43.20	217.87	
11:24	4.7		6.52	1,261.30	11.49	1.11	-48.00	203.38	
11:27	5.6		6.53	1,261.40	11.53	1.02	-51.50	187.54	
11:30	6.5		6.53	1,261.50	11.52	0.96	-52.80	180.34	
11:33	7.5		6.54	1,261.10	11.38	0.92	-54.00	159.27	
11:36	8.4		6.54	1,263.20	11.22	0.88	-53.90	133.35	
11:39	9.3		6.54	1,261.50	11.22	0.85	-55.10	117.37	
11:42	10.3		6.54	1,263.30	11.12	0.81	-56.20	101.61	
11:45	11.2		6.54	1,264.30	11.35	0.78	-56.40	84.49	
11:48	12.1		6.54	1,264.70	11.42	0.75	-56.40	73.00	
11:51	13.1		6.54	1,265.30	11.25	0.73	-56.80	62.82	
11:54	14.0		6.54	1,266.60	11.18	0.70	-57.00	60.69	

Sampled By: JC — Sample Date/Time: 2/19/2025 11:54
Sample Method: Low Flow — Sample Equipment: Bladder Pump
Sample Parameters: 6.54 pH — 1,266.60 Spec. Cond. — 11.18 Temp
Field Filtered: No — Filter Type:
Water Level: 9.96 feet below TOC — Drawdown: 0.21 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp — **Date:** 2/19/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-4
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	25020749	**Date (s):**	2/18/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 7 °F Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	No

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/18/2025 10:21

Static Water Level: 10.68 feet below TOC

Total Depth: 60.41 feet below TOC

Water Column: 49.73 feet

Purging Activities

Purged By: JC Purge Date: 2/18/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 49.73 ft. x 0.022 = 1.09 L x 3 Vol. = 3.27 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:22	0.0	250	purge start time						
10:26	1.0	↓	6.74	776.20	12.00	2.48	-105.00	12.85	
10:29	1.8		6.76	782.80	12.64	1.51	-118.20	16.19	
10:32	2.5		6.77	785.10	12.68	1.20	-123.00	18.55	
10:35	3.3		6.77	787.50	12.80	1.11	-124.60	18.39	
10:38	4.0		6.78	786.10	12.66	1.05	-124.80	18.11	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/18/2025 10:38

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.78 pH 786.10 Spec. Cond. 12.66 Temp

Field Filtered: No Filter Type:

Water Level: 12.75 feet below TOC Drawdown: 2.07 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp **Date:** 2/18/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-5
Project Location:	Springfield, IL	**Sample ID:**	006
W.O. Number (s):	25020749	**Date (s):**	2/18/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 5 °F Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/18/2025 9:48

Static Water Level: 14.98 feet below TOC

Total Depth: 31.27 feet below TOC

Water Column: 16.29 feet

Purging Activities

Purged By: JC Purge Date: 2/18/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 16.29 ft. x 0.022 = 0.36 L x 3 Vol. = 1.08 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:49	0.0	286	purge start time						
9:55	1.7	↓	6.91	658.60	11.72	4.61	64.20	19.89	
9:58	2.6		6.87	656.90	11.63	3.84	71.90	12.78	
10:01	3.4		6.84	658.50	11.78	3.02	76.70	7.32	
10:04	4.3		6.83	660.70	11.77	2.58	80.10	4.36	
10:07	5.1		6.83	661.30	11.79	2.38	82.50	3.23	
10:10	6.0		6.83	662.20	11.89	2.21	84.40	2.68	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/18/2025 10:10

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.83 pH 662.20 Spec. Cond. 11.89 Temp

Field Filtered: No Filter Type:

Water Level: 18.70 feet below TOC Drawdown: 3.72 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp **Date:** 2/18/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-6
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	25020749	**Date (s):**	2/18/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 8 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	No			

Groundwater Level Measurements

Date/Time Measured: 2/18/2025 10:56

Static Water Level: 8.56 feet below TOC

Total Depth: 39.62 feet below TOC

Water Column: 31.06 feet

Purging Activities

Purged By: JC — Purge Date: 2/18/2025

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 31.06 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.50 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:56	0.0	208	purge start time						
11:02	1.3	↓	7.20	614.50	9.77	3.90	-73.00	36.81	
11:05	1.9		7.22	615.40	10.12	4.55	-70.70	31.77	
11:08	2.5		7.25	613.60	10.57	4.83	-68.90	25.13	
11:11	3.1		7.25	613.60	10.67	5.01	-67.80	19.54	
11:14	3.8		7.24	613.70	10.75	4.95	-68.90	18.49	
11:17	4.4		7.26	615.30	10.92	5.14	-67.70	14.87	
11:20	5.0		7.26	614.70	10.79	5.17	-68.30	11.14	
11:23	5.6		7.24	615.30	10.85	5.06	-69.90	10.77	
11:26	6.3		7.21	617.30	10.88	4.72	-72.10	9.47	
11:29	6.9		7.21	617.20	10.92	4.60	-73.00	7.96	
11:32	7.5		7.21	617.10	11.11	4.60	-73.40	7.85	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/18/2025 11:32

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 7.21 pH — 617.10 Spec. Cond. — 11.11 Temp

Field Filtered: No — Filter Type:

Water Level: 16.97 feet below TOC — Drawdown: 8.41 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp — **Date:** 2/18/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-7
Project Location:	Springfield, IL	**Sample ID:**	008
W.O. Number (s):	25020749	**Date (s):**	2/20/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 9 °F Wind Direction: ☐ N ☐ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 11:15

Static Water Level: 11.92 feet below TOC

Total Depth: 42.52 feet below TOC

Water Column: 30.60 feet

Purging Activities

Purged By: BG Purge Date: 2/20/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.6 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:15	0.0	222	purge start time						
11:30	3.3	↓	7.26	872.00	9.78	2.36	-136.10	111.37	
11:33	4.0		7.27	871.80	9.54	2.24	-132.20	42.04	
11:36	4.7		7.29	866.10	8.93	2.21	-127.20	33.54	
11:39	5.3		7.28	856.30	11.88	2.19	-122.30	54.03	
11:42	6.0		7.38	794.90	11.96	2.95	-94.10	49.55	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/20/2025 11:42

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.38 pH 794.90 Spec. Cond. 11.96 Temp

Field Filtered: No Filter Type:

Water Level: 12.31 feet below TOC Drawdown: 0.39 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Brett Gillihan **Date:** 2/20/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-8
Project Location:	Springfield, IL	**Sample ID:**	009
W.O. Number (s):	25020749	**Date (s):**	2/19/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 14 °F Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/19/2025 12:06

Static Water Level: 5.51 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 34.09 feet

Purging Activities

Purged By: JC Purge Date: 2/19/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.09 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:08	0.0	250	purge start time						
12:14	1.5	↓	6.93	838.20	9.24	1.92	-76.40	18.65	
12:17	2.3		6.90	847.00	9.34	1.32	-92.70	12.70	
12:20	3.0		6.90	847.90	9.43	1.11	-101.10	12.19	
12:23	3.8		6.89	848.00	9.30	1.01	-106.00	10.08	
12:26	4.5		6.89	850.10	9.55	0.94	-109.30	8.25	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/19/2025 12:26

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.89 pH 850.10 Spec. Cond. 9.55 Temp

Field Filtered: No Filter Type:

Water Level: 5.77 feet below TOC Drawdown: 0.26 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp **Date:** 2/19/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-9
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	25020749	**Date (s):**	2/20/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 15 °F Wind Direction: ☐ N ☐ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 11:57

Static Water Level: 13.29 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 26.31 feet

Purging Activities

Purged By: BG Purge Date: 2/20/2025

Purge Method: Submersible Pump Well Diameter: 2"

Purge Volume Calculation (L): 26.31 ft. x 0.022 = 0.58 L x 3 Vol. = 1.74 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Cloudy Odor: None Color: lt brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:57	0.0	263	purge start time						
12:04	1.8	↓	6.98	1,096.40	10.34	3.25	-90.70	168.56	
12:07	2.6		6.98	1,098.40	12.29	2.69	-90.80	120.20	
12:10	3.4		7.01	1,091.40	12.02	2.39	-89.30	91.39	
12:13	4.2		7.02	1,092.20	11.18	2.21	-89.00	71.61	
12:16	5.0		7.02	1,081.10	11.21	2.08	-89.50	53.93	

Sampling Activities

Sampled By: DC Sample Date/Time: 2/20/2025 12:16

Sample Method: Low Flow Sample Equipment: Submersible Pump

Sample Parameters: 7.02 pH 1,081.10 Spec. Cond. 11.21 Temp

Field Filtered: No Filter Type:

Water Level: 13.91 feet below TOC Drawdown: 0.62 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Brett Gillihan **Date:** 2/20/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-10
Project Location:	Springfield, IL	**Sample ID:**	011
W.O. Number (s):	25020749	**Date (s):**	2/19/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 14 °F Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/19/2025 12:36

Static Water Level: 4.04 feet below TOC

Total Depth: 38.07 feet below TOC

Water Column: 34.03 feet

Purging Activities

Purged By: JC Purge Date: 2/19/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.03 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:37	0.0	250	purge start time						
12:41	1.0	↓	6.68	1,079.40	9.00	2.66	-72.40	68.13	
12:44	1.8		6.66	1,083.70	9.47	1.66	-79.70	21.50	
12:47	2.5		6.66	1,088.80	9.83	1.43	-83.50	11.10	
12:50	3.3		6.67	1,088.00	9.66	1.32	-85.50	7.80	
12:53	4.0		6.67	1,088.50	9.73	1.26	-86.70	6.46	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/19/2025 12:53

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.67 pH 1,088.50 Spec. Cond. 9.73 Temp

Field Filtered: No Filter Type:

Water Level: 4.29 feet below TOC Drawdown: 0.25 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp **Date:** 2/19/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25020749
Monitoring Point: AP-11
Sample ID: 012
Date (s): 2/20/2025

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 7 °F Wind Direction: ☐ N ☐ S ☐ E ☐ EW ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 11:26
Static Water Level: 15.24 feet below TOC
Total Depth: 22.95 feet below TOC
Water Column: 7.71 feet

Purging Activities

Purged By: TC Purge Date: 2/20/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 7.71 ft. x 0.022 = 0.17 L x 3 Vol. = 0.51 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:38	0.0	167	purge start time						
11:41	0.5	↓	6.45	724.10	9.45	3.35	78.00	29.66	
11:44	1.0		6.42	707.90	8.95	2.93	75.80	28.00	
11:47	1.5		6.41	709.10	8.94	2.60	70.70	21.52	
11:50	2.0		6.40	707.90	9.17	2.26	54.60	19.19	
11:53	2.5		6.40	707.90	9.51	1.98	32.40	18.77	
11:56	3.0		6.40	706.50	9.41	1.74	16.20	13.71	

Sampling Activities

Sampled By: DC Sample Date/Time: 2/20/2025 11:56
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.40 pH 706.50 Spec. Cond. 9.41 Temp
Field Filtered: No Filter Type:
Water Level: 15.93 feet below TOC Drawdown: 0.69 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Date: 2/20/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-12
Project Location:	Springfield, IL	**Sample ID:**	013
W.O. Number (s):	25020749	**Date (s):**	2/20/2025

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 11 °F Wind Direction: ☐ N ☐ S ☐ E ☐ EW ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 12:44

Static Water Level: 18.08 feet below TOC

Total Depth: 30.40 feet below TOC

Water Column: 12.32 feet

Purging Activities

Purged By: TC Purge Date: 2/20/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 12.32 ft. x 0.022 = 0.27 L x 3 Vol. = 0.81 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:45	0.0	190	purge start time						
12:57	2.3	↓	6.57	1,024.90	10.79	1.91	-52.60	15.33	
13:00	2.9		6.56	1,024.50	10.74	1.70	-53.80	12.53	
13:03	3.4		6.55	1,022.70	10.66	1.60	-54.60	10.49	
13:06	4.0		6.55	1,022.00	10.72	1.53	-55.20	8.58	

Sampling Activities

Sampled By: DC Sample Date/Time: 2/20/2025 13:06

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.55 pH 1,022.00 Spec. Cond. 10.72 Temp

Field Filtered: No Filter Type:

Water Level: 19.31 feet below TOC Drawdown: 1.23 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: [signature] **Date:** 2/20/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25020749
Monitoring Point: AP-13
Sample ID: 014
Date (s): 2/20/2025

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 11 °F Wind Direction: ☐ N ☐ S ☐ E ☐ EW ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 13:14
Static Water Level: 18.44 feet below TOC
Total Depth: 31.00 feet below TOC
Water Column: 12.56 feet

Purging Activities

Purged By: TC Purge Date: 2/20/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 12.56 ft. x 0.022 = 0.28 L x 3 Vol. = 0.84 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:15	0.0	192	purge start time						
13:29	2.7	↓	6.70	519.20	10.47	2.60	-90.70	38.40	
13:32	3.3		6.70	521.30	10.48	2.46	-91.60	19.92	
13:35	3.8		6.69	521.70	10.58	2.33	-93.50	11.64	
13:38	4.4		6.69	525.80	10.62	2.24	-93.80	23.94	
13:41	5.0		6.69	527.20	10.40	2.20	-94.70	6.69	

Sampling Activities

Sampled By: DC Sample Date/Time: 2/20/2025 13:41
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.69 pH 527.20 Spec. Cond. 10.40 Temp
Field Filtered: No Filter Type:
Water Level: 19.71 feet below TOC Drawdown: 1.27 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Date: 2/20/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25020749
Monitoring Point: AP-14
Sample ID: 015
Date (s):

Field Team Members

Name: _____ Affiliation: _____
Name: _____ Affiliation: _____

Weather Conditions

Temp: _____ °F Wind Direction: ☐ N ☐ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☐ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad _____
Casing _____
Protective Casing _____
Reference Mark/Identification _____

Locks	Yes	No
Protective Casing		
Well		

Groundwater Level Measurements

Date/Time Measured: _____
Static Water Level: _____ feet below TOC
Total Depth: _____ feet below TOC
Water Column: _____ feet

Purging Activities

Purged By: _____ Purge Date: _____
Purge Method: _____ Well Diameter: _____
Purge Volume Calculation (L): _____
Actual Purge Volume (L): _____
Physical appearance of purge water: _____ Odor: _____ Color: _____

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other

Sampling Activities

Sampled By: _____ Sample Date/Time: _____
Sample Method: _____ Sample Equipment: _____
Sample Parameters: _____ pH _____ Spec. Cond. _____ Temp
Field Filtered: _____ Filter Type: _____
Water Level: _____ feet below TOC Drawdown: _____ feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Well/tubing frozen in place. Unable to sample

Form Completed By: _____ **Date:** _____

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-1
Project Location:	Springfield, IL	**Sample ID:**	016
W.O. Number (s):	25020749	**Date (s):**	2/20/2025

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 11 °F Wind Direction: ☐ N ☐ S ☐ E ☐ EW ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 13:50

Static Water Level: 13.84 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 9.11 feet

Purging Activities

Purged By: TC Purge Date: 2/20/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 9.11 ft. x 0.022 = 0.2 L x 3 Vol. = 0.6 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:50	0.0	261	purge start time						
14:01	2.9	↓	6.58	932.50	10.07	3.87	-29.90	19.38	
14:04	3.7		6.58	942.60	10.06	3.84	-26.10	16.97	
14:07	4.4		6.59	948.40	10.12	3.86	-22.90	18.85	
14:10	5.2		6.59	951.80	10.16	3.76	-19.60	13.32	
14:13	6.0		6.59	954.80	10.33	3.89	-16.60	11.88	

Sampling Activities

Sampled By: DC Sample Date/Time: 2/20/2025 14:13

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.59 pH 954.80 Spec. Cond. 10.33 Temp

Field Filtered: No Filter Type:

Water Level: 14.61 feet below TOC Drawdown: 0.77 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Date: 2/20/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25020749
Monitoring Point: T-2
Sample ID: 017
Date (s): 2/20/2025

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 11 °F Wind Direction: ☑ N ☐ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 12:10
Static Water Level: 25.65 feet below TOC
Total Depth: 34.44 feet below TOC
Water Column: 8.79 feet

Purging Activities

Purged By: TC Purge Date: 2/20/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 8.79 ft. x 0.022 = 0.19 L x 3 Vol. = 0.57 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:10	0.0	250	purge start time						
12:15	1.3	↓	6.53	1,306.30	9.67	1.31	-71.60	14.98	
12:18	2.0		6.52	1,299.60	9.79	1.05	-76.50	15.15	
12:21	2.8		6.52	1,297.10	9.93	0.93	-78.10	43.90	
12:24	3.5		6.52	1,297.50	9.95	0.87	-79.70	28.51	
12:27	4.3		6.53	1,297.50	9.86	0.84	-82.50	8.44	
12:30	5.0		6.53	1,294.10	9.98	0.82	-85.80	10.51	

Sampling Activities

Sampled By: DC Sample Date/Time: 2/20/2025 12:30
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.53 pH 1,294.10 Spec. Cond. 9.98 Temp
Field Filtered: No Filter Type:
Water Level: 27.50 feet below TOC Drawdown: 1.85 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Date: 2/20/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-4
Project Location:	Springfield, IL	**Sample ID:**	018
W.O. Number (s):	25020749	**Date (s):**	2/19/2025

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 15 °F Wind Direction: ☑ N ☐ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/19/2025 13:25

Static Water Level: 18.41 feet below TOC

Total Depth: 27.42 feet below TOC

Water Column: 9.01 feet

Purging Activities

Purged By: TC Purge Date: 2/19/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 9.01 ft. x 0.022 = 0.2 L x 3 Vol. = 0.6 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Grey

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:25	0.0	143	purge start time						
13:48	3.3	↓	6.71	522.80	9.70	1.42	36.90	100.42	
13:51	3.7		6.68	520.60	9.64	1.33	38.80	62.94	
13:54	4.1		6.66	520.40	9.95	1.25	40.30	76.61	
13:57	4.6		6.65	522.30	9.55	1.21	41.80	47.50	
14:00	5.0		6.64	519.80	9.65	1.15	42.60	55.80	

Sampling Activities

Sampled By: DC Sample Date/Time: 2/19/2025 14:00

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.64 pH 519.80 Spec. Cond. 9.65 Temp

Field Filtered: No Filter Type:

Water Level: 19.57 feet below TOC Drawdown: 1.16 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Date: 2/19/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-5
Project Location:	Springfield, IL	**Sample ID:**	019
W.O. Number (s):	25020749	**Date (s):**	2/19/2025

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 15 °F Wind Direction: ☑ N ☐ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/19/2025 11:50

Static Water Level: 7.99 feet below TOC

Total Depth: 22.34 feet below TOC

Water Column: 14.35 feet

Purging Activities

Purged By: TC Purge Date: 2/19/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 14.35 ft. x 0.022 = 0.32 L x 3 Vol. = 0.96 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:56	0.0	152	purge start time						
12:17	3.2	↓	6.72	445.60	5.51	4.71	84.60	7.01	
12:20	3.6		6.72	445.40	5.59	4.67	86.90	5.23	
12:23	4.1		6.72	445.80	6.04	4.65	89.10	4.46	
12:26	4.5		6.72	446.60	6.15	4.66	91.10	4.27	
12:29	5.0		6.72	447.50	6.19	4.67	92.90	3.67	

Sampling Activities

Sampled By: DC Sample Date/Time: 2/19/2025 12:29

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.72 pH 447.50 Spec. Cond. 6.19 Temp

Field Filtered: No Filter Type:

Water Level: 9.83 feet below TOC Drawdown: 1.84 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Date: 2/19/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25020749
Monitoring Point: T-6
Sample ID: 020
Date (s): 2/19/2025

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 15 °F Wind Direction: ☑ N ☐ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/19/2025 12:40
Static Water Level: 9.80 feet below TOC
Total Depth: 43.62 feet below TOC
Water Column: 33.82 feet

Purging Activities

Purged By: TC Purge Date: 2/19/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 33.82 ft. x 0.022 = 0.74 L x 3 Vol. = 2.22 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.50 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:40	0.0	225	purge start time						
12:51	2.5	↓	7.29	661.20	7.51	6.82	111.90	68.41	
12:54	3.2		7.30	660.80	7.44	6.90	110.80	47.35	
12:57	3.8		7.30	661.10	7.66	7.00	109.60	36.79	
13:00	4.5		7.30	661.00	7.72	6.98	108.60	28.73	

Sampling Activities

Sampled By: DC Sample Date/Time: 2/19/2025 13:00
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 7.30 pH 661.00 Spec. Cond. 7.72 Temp
Field Filtered: No Filter Type:
Water Level: 10.50 feet below TOC Drawdown: 0.70 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Date: 2/19/2025

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25020749
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 1Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 50115 Technician(s): justin colp Date: 2/18/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230619c	4.00	2/18/25 9:30
7.0 Buffer	wc240913b	7.00	2/18/25 9:26
10.0 Buffer	wc240625b	10.00	2/18/25 9:34
LCS/CCV (7.0 Buffer)	wc240913c		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/18/25 9:42

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.5	2/18/25 9:42
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	2/18/25 9:44	17.5	7.02	1,410	0.51		
CCV-1-JC	CCV	2/18/25 13:20	18.5	7.06	1,423	0.57		

Comments:

Field Meter ID: Pine 50115 Technician(s): justn colp Date: 2/19/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230619c	4.00	2/19/25 10:31
7.0 Buffer	wc240913b	7.00	2/19/25 10:28
10.0 Buffer	wc240625b	10.00	2/19/25 10:36
LCS/CCV (7.0 Buffer)	wc240913c		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/19/25 10:47

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.49	2/19/25 10:53
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	2/19/25 10:55	9.1	7.01	1,411	0.47		
CCV-2-JC	CCV	2/19/25 14:29	11.1	7.03	1,417	0.56		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25020749
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 1Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 50115 Technician(s): justin colp Date: 2/20/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230619c	4.00	2/20/25 8:56
7.0 Buffer	wc240913b	7.00	2/20/25 8:51
10.0 Buffer	wc240625b	10.00	2/20/25 9:00
LCS/CCV (7.0 Buffer)	wc240913c		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/20/25 9:06

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.5	2/20/25 9:06
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-JC	LCS	2/20/25 9:08	9.3	6.99	1,415	0.5		
CCV-3-JC	CCV	2/20/25 13:42	10.4	7.02	1,426	0.54		

Comments:

Field Meter ID: Pine 50115 Technician(s): justin colp Date: 2/21/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230619c	4.00	2/21/25 8:41
7.0 Buffer	wc240913b	7.00	2/21/25 8:37
10.0 Buffer	wc240625b	10.00	2/21/25 8:45
LCS/CCV (7.0 Buffer)	wc240913c		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/21/25 8:53

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.6	2/21/25 8:53
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4-JC	LCS	2/21/25 8:55	9.4	7.02	1,413	0.62		
CCV-4-JC	CCV	2/21/25 10:30	9.7	7.02	1,418	0.61		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25020749
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 1Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210756 Technician(s): Tracy Carroll Date: 2/19/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230619C	4.01	2/19/25 11:14
7.0 Buffer	WC240913B	7.00	2/19/25 11:11
10.0 Buffer	WC240625B	10.00	2/19/25 11:19
LCS/CCV (7.0 Buffer)	WC240913C		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/19/25 11:05

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-TC	LCS	2/19/25 11:21	0.3	7.06	1,413			
CCV-1-TC	CCV	2/19/25 14:27	13.7	7.08	1,321			

Comments:

Field Meter ID: Pine 210756 Technician(s): Tracy Carroll Date: 2/20/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230619C	4.00	2/20/25 9:55
7.0 Buffer	WC240913B	7.00	2/20/25 9:49
10.0 Buffer	WC240625B	10.00	2/20/25 10:12
LCS/CCV (7.0 Buffer)	WC240913C		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/20/25 10:13

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-TC	LCS	2/20/25 10:25	0.6	7.09	1,417			
CCV-2-TC	CCV	2/20/25 14:35	0.8	7.09	1,423			

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25020749
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 1Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210756 Technician(s): Tracy Carroll Date: 2/21/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230619C	4.01	2/21/25 9:29
7.0 Buffer	WC240913B	7.00	2/21/25 9:21
10.0 Buffer	WC240625B	10.00	2/21/25 9:33
LCS/CCV (7.0 Buffer)	WC240913C		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/21/25 9:41

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-TC	LCS	2/21/25 9:44	0.2	7.05	1,415			
CCV-3-TC	CCV	2/21/25 10:46	0.2	7.06	1,404			

Comments:

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

March 28, 2025

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 25020749

Order No.: 25021959

Dear Shelly Hennessy:

Alliance Technical Group - Akron received 19 sample(s) on 2/27/2025 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Website: http://www.settek.com

Case Narrative

WO#: **25021959**
Date: **3/28/2025**

CLIENT: TEKLAB Inc,
Project: 25020749

This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Alliance Technical Group - Akro
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **25021959**
Date: **3/28/2025**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Alliance Technical Group - Akron
3310 Win St.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **25021959**

28-Mar-25

CLIENT: TEKLAB Inc,
Project: 25020749

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
25021959-001	25020749-001B		2/18/2025 12:00:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-002	25020749-002B		2/18/2025 12:38:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-003	25020749-003B		2/18/2025 1:15:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-004	25020749-004B		2/19/2025 11:54:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-005	25020749-005B		2/18/2025 10:38:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-006	25020749-006B		2/18/2025 10:10:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-007	25020749-007B		2/18/2025 11:32:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-008	25020749-008B		2/20/2025 11:42:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-009	25020749-009B		2/19/2025 12:26:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-010	25020749-010B		2/20/2025 12:16:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-011	25020749-011B		2/19/2025 12:53:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-012	25020749-012B		2/20/2025 11:56:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-013	25020749-013B		2/20/2025 1:06:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-014	25020749-014B		2/20/2025 1:41:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-015	25020749-016B		2/20/2025 2:13:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-016	25020749-017B		2/20/2025 12:30:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-017	25020749-018B		2/19/2025 2:00:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-018	25020749-019B		2/19/2025 12:29:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25021959-019	25020749-020B		2/19/2025 1:00:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **25021959**

28-Mar-25

Client: TEKLAB Inc,
Project: 25020749

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
25021959-001A	25020749-001B	2/18/2025 12:00:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-002A	25020749-002B	2/18/2025 12:38:00 PM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-003A	25020749-003B	2/18/2025 1:15:00 PM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-004A	25020749-004B	2/19/2025 11:54:00 AM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-005A	25020749-005B	2/18/2025 10:38:00 AM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-006A	25020749-006B	2/18/2025 10:10:00 AM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-007A	25020749-007B	2/18/2025 11:32:00 AM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-008A	25020749-008B	2/20/2025 11:42:00 AM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-009A	25020749-009B	2/19/2025 12:26:00 PM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-010A	25020749-010B	2/20/2025 12:16:00 PM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-011A	25020749-011B	2/19/2025 12:53:00 PM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-012A	25020749-012B	2/20/2025 11:56:00 AM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM

Original

Alliance Technical Group - Akron
3310 Win St.
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TEL: (330) 253-8211 FAX: (330) 253-4489
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DATES REPORT

WO#: **25021959**

28-Mar-25

Client: TEKLAB Inc,
Project: 25020749

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
25021959-012A	25020749-012B	2/20/2025 11:56:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-013A	25020749-013B	2/20/2025 1:06:00 PM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-014A	25020749-014B	2/20/2025 1:41:00 PM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25021959-015A	25020749-016B	2/20/2025 2:13:00 PM		Radium-226 (EPA 903.0)		3/5/2025 10:47:15 AM	3/26/2025 9:39:00 AM
				Radium-228 (EPA 904.0)		3/5/2025 10:47:15 AM	3/25/2025 2:10:00 PM
25021959-016A	25020749-017B	2/20/2025 12:30:00 PM		Radium-226 (EPA 903.0)		3/5/2025 10:47:15 AM	3/26/2025 9:39:00 AM
				Radium-228 (EPA 904.0)		3/5/2025 10:47:15 AM	3/25/2025 2:10:00 PM
25021959-017A	25020749-018B	2/19/2025 2:00:00 PM		Radium-226 (EPA 903.0)		3/5/2025 10:47:15 AM	3/26/2025 9:39:00 AM
				Radium-228 (EPA 904.0)		3/5/2025 10:47:15 AM	3/25/2025 2:10:00 PM
25021959-018A	25020749-019B	2/19/2025 12:29:00 PM		Radium-226 (EPA 903.0)		3/5/2025 10:47:15 AM	3/26/2025 9:39:00 AM
				Radium-228 (EPA 904.0)		3/5/2025 10:47:15 AM	3/25/2025 2:10:00 PM
25021959-019A	25020749-020B	2/19/2025 1:00:00 PM		Radium-226 (EPA 903.0)		3/5/2025 10:47:15 AM	3/26/2025 9:39:00 AM
				Radium-228 (EPA 904.0)		3/5/2025 10:47:15 AM	3/25/2025 2:10:00 PM

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/18/2025 12:00:00 PM
Project: 25020749
Lab ID: 25021959-001
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-001B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.30		pCi/L	± 0.110	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.30		pCi/L	± 0.440	1	3/26/2025 3:34:00 PM
Yield	0.780					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/18/2025 12:38:00 PM
Project: 25020749
Lab ID: 25021959-002
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-002B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.20		pCi/L	± 0.220	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.20		pCi/L	± 0.380	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/18/2025 1:15:00 PM
Project: 25020749
Lab ID: 25021959-003
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-003B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.30		pCi/L	± 0.100	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.30		pCi/L	± 0.380	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/19/2025 11:54:00 AM
Project: 25020749
Lab ID: 25021959-004
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-004B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.30		pCi/L	± 0.110	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.30		pCi/L	± 0.490	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/18/2025 10:38:00 AM
Project: 25020749
Lab ID: 25021959-005
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-005B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.40		pCi/L	± 0.150	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.40		pCi/L	± 0.410	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/18/2025 10:10:00 AM
Project: 25020749
Lab ID: 25021959-006
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-006B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.40		pCi/L	± 0.110	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.40		pCi/L	± 0.410	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/18/2025 11:32:00 AM
Project: 25020749
Lab ID: 25021959-007
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-007B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.30		pCi/L	± 0.110	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.30		pCi/L	± 0.680	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/20/2025 11:42:00 AM
Project: 25020749
Lab ID: 25021959-008
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-008B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.40		pCi/L	± 0.130	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.40		pCi/L	± 0.380	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/19/2025 12:26:00 PM
Project: 25020749
Lab ID: 25021959-009
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-009B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.40		pCi/L	± 0.220	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.40		pCi/L	± 0.570	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/20/2025 12:16:00 PM
Project: 25020749
Lab ID: 25021959-010
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-010B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.30		pCi/L	± 0.220	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.30		pCi/L	± 0.580	1	3/26/2025 3:34:00 PM
Yield	0.910					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/19/2025 12:53:00 PM
Project: 25020749
Lab ID: 25021959-011
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-011B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.40		pCi/L	± 0.170	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.40		pCi/L	± 0.570	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/20/2025 11:56:00 AM
Project: 25020749
Lab ID: 25021959-012
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-012B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.50		pCi/L	± 0.140	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.50		pCi/L	± 0.540	1	3/26/2025 3:34:00 PM
Yield	0.780					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/20/2025 1:06:00 PM
Project: 25020749
Lab ID: 25021959-013
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-013B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.40		pCi/L	± 0.130	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.40		pCi/L	± 0.470	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/20/2025 1:41:00 PM
Project: 25020749
Lab ID: 25021959-014
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-014B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.50		pCi/L	± 0.160	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.50		pCi/L	± 0.580	1	3/26/2025 3:34:00 PM
Yield	1.00					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/20/2025 2:13:00 PM
Project: 25020749
Lab ID: 25021959-015
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-016B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.110	1	3/26/2025 9:39:00 AM
Yield	1.00					1	3/26/2025 9:39:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.420	1	3/25/2025 2:10:00 PM
Yield	1.00					1	3/25/2025 2:10:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/20/2025 12:30:00 PM
Project: 25020749
Lab ID: 25021959-016
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-017B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.180	1	3/26/2025 9:39:00 AM
Yield	1.00					1	3/26/2025 9:39:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.430	1	3/25/2025 2:10:00 PM
Yield	1.00					1	3/25/2025 2:10:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/19/2025 2:00:00 PM
Project: 25020749
Lab ID: 25021959-017
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-018B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	1.04	1.00		pCi/L	± 0.250	1	3/26/2025 9:39:00 AM
Yield	1.00					1	3/26/2025 9:39:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	1.56	1.00		pCi/L	± 0.500	1	3/25/2025 2:10:00 PM
Yield	1.00					1	3/25/2025 2:10:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/19/2025 12:29:00 PM
Project: 25020749
Lab ID: 25021959-018
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-019B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.120	1	3/26/2025 9:39:00 AM
Yield	1.00					1	3/26/2025 9:39:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.490	1	3/25/2025 2:10:00 PM
Yield	1.00					1	3/25/2025 2:10:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25021959**

Date Reported: **3/28/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/19/2025 1:00:00 PM
Project: 25020749
Lab ID: 25021959-019
Matrix: NON-POTABLE WATER
Client Sample ID: 25020749-020B

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.140	1	3/26/2025 9:39:00 AM
Yield	1.00					1	3/26/2025 9:39:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.380	1	3/25/2025 2:10:00 PM
Yield	1.00					1	3/25/2025 2:10:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **25021959**

28-Mar-25

Client: TEKLAB Inc,
Project: 25020749 **BatchID:** **82663**

Sample ID: **MB-82663** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205809**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E904.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5509486**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-82663** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205809**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E904.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5509487**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	6.47	1.00	5.000	0	129	50	130				QLR
Yield	0.580			0	0						

Sample ID: **LCSD-82663** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205809**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E904.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5509488**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.45	1.00	5.000	0	89.0	50	130	6.470	37.0	20	R
Yield	1.00			0	0			0.5800	53.2		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **25021959**

28-Mar-25

Client: TEKLAB Inc,
Project: 25020749 **BatchID:** **82663**

Sample ID: **25021873-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205809**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E904.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5509493**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **25021875-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205809**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E904.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5509495**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			1.260	200	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **25021959**

28-Mar-25

Client: TEKLAB Inc,
Project: 25020749 **BatchID:** **82663**

Sample ID: **MB-82663**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/4/2025**	RunNo: **205811**
Client ID: **BatchQC**	Batch ID: **82663**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/27/2025**	SeqNo: **5509528**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-82663**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/4/2025**	RunNo: **205811**
Client ID: **BatchQC**	Batch ID: **82663**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/27/2025**	SeqNo: **5509529**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	3.65	1.00	5.000	0	73.0	70	130				QLR

Sample ID: **LCSD-82663**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/4/2025**	RunNo: **205811**
Client ID: **BatchQC**	Batch ID: **82663**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/27/2025**	SeqNo: **5509530**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.97	1.00	5.000	0	99.4	70	130	3.650	30.6	20	R

Sample ID: **25021873-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/4/2025**	RunNo: **205811**
Client ID: **BatchQC**	Batch ID: **82663**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/27/2025**	SeqNo: **5509535**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **25021959**

28-Mar-25

Client: TEKLAB Inc,
Project: 25020749 **BatchID:** **82663**

Sample ID: **25021873-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205811**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E903.0** **E903-904** Analysis Date: **3/27/2025** SeqNo: **5509535**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **25021875-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205811**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E903.0** **E903-904** Analysis Date: **3/27/2025** SeqNo: **5509537**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **25021959**

28-Mar-25

Client: TEKLAB Inc,
Project: 25020749 **BatchID:** **82683**

Sample ID: **MB-82683** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205677**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E904.0** **E903-904** Analysis Date: **3/25/2025** SeqNo: **5506861**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-82683** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205677**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E904.0** **E903-904** Analysis Date: **3/25/2025** SeqNo: **5506862**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.54	1.00	5.000	0	70.8	50	130				
Yield	0.900			0	0						

Sample ID: **LCSD-82683** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205677**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E904.0** **E903-904** Analysis Date: **3/25/2025** SeqNo: **5506863**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.35	1.00	5.000	0	67.0	50	130	3.540	5.52	20	
Yield	1.00			0	0			0.9000	10.5		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **25021959**

28-Mar-25

Client: TEKLAB Inc,
Project: 25020749 **BatchID:** **82683**

Sample ID: **25030002-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205677**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E904.0** **E903-904** Analysis Date: **3/25/2025** SeqNo: **5506868**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **25030004-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205677**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E904.0** **E903-904** Analysis Date: **3/25/2025** SeqNo: **5506870**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **25021959**

28-Mar-25

Client: TEKLAB Inc,
Project: 25020749 **BatchID:** **82683**

Sample ID: **MB-82683**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2025**	RunNo: **205680**
Client ID: **BatchQC**	Batch ID: **82683**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5506940**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-82683**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2025**	RunNo: **205680**
Client ID: **BatchQC**	Batch ID: **82683**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5506941**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.48	1.00	5.000	0	89.6	70	130				

Sample ID: **LCSD-82683**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2025**	RunNo: **205680**
Client ID: **BatchQC**	Batch ID: **82683**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5506942**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.61	1.00	5.000	0	92.2	70	130	4.480	2.86	20	

Sample ID: **25030002-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2025**	RunNo: **205680**
Client ID: **BatchQC**	Batch ID: **82683**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5506947**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **25021959**

28-Mar-25

Client: TEKLAB Inc,
Project: 25020749 **BatchID:** **82683**

Sample ID: **25030002-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205680**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E903.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5506947**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **25030004-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205680**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E903.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5506949**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

 25021959

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: Teklab QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for combined Radium 226/228 per your routine method/s.
Method changes require Teklab authorization. Samples collected from an IL site.
Batch QC is required for all analyses requested.

Project# 25020749

Contact: Shelly Hennessy Email: shennessy@teklabinc.com
Requested Due Date: Standard TAT Billing/PO: 37997 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228											
	25020749-001B	2/18/25 12:00	HNO3	Groundwater	✔	pH	1	CSM	30							
	25020749-002B	2/18/25 12:38	HNO3	Groundwater	✔		1		32							
	25020749-003B	2/18/25 13:15	HNO3	Groundwater	✔		1		36							
	25020749-004B	2/19/25 11:54	HNO3	Groundwater	✔		1		28							
	25020749-005B	2/18/25 10:38	HNO3	Groundwater	✔		1		40							
	25020749-006B	2/18/25 10:10	HNO3	Groundwater	✔		1		33							
	25020749-007B	2/18/25 11:32	HNO3	Groundwater	✔		1		31							
	25020749-008B	2/20/25 11:42	HNO3	Groundwater	✔		1		26							
	25020749-009B	2/19/25 12:26	HNO3	Groundwater	✔		1		23							
	25020749-010B	2/20/25 12:16	HNO3	Groundwater	✔		1		16							
	25020749-011B	2/19/25 12:53	HNO3	Groundwater	✔	✓	1	✓	28							

18.8-0.0=18.8, CS intact 02/25-Fedex Box/code

*Relinquished By	Date/Time	Received By	Date/Time
			02/27/25 1130

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA 3/2/2016

 25021959

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Teklab | QC Level: 2

Project# 25020749

Comments: **Please Issue reports and invoices via email only**
Please analyze for combined Radium 226/228 per your routine method/s.
Method changes require Teklab authorization. Samples collected from an IL site.
Batch QC is required for all analyses requested.

Contact: Shelly Hennessy | Email: shennessy@teklabinc.com
Requested Due Date: Standard TAT | Billing/PO: 37997 | Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228												
	25020749-012B	02/20/25 11:56	HNO3	Groundwater	✔	pH	1	CPM		26							
	25020749-013B	02/20/25 13:06	HNO3	Groundwater	✔		1			42							
	25020749-014B	02/20/25 13:41	HNO3	Groundwater	✔		1			30							
	25020749-016B	02/20/25 14:13	HNO3	Groundwater	✔		1			31							
	25020749-017B	02/20/25 12:30	HNO3	Groundwater	✔		1			33							
	25020749-018B	02/19/25 14:00	HNO3	Groundwater	✔		1			50							
	25020749-019B	02/19/25 12:29	HNO3	Groundwater	✔		1			26							
	25020749-020B	02/19/25 13:00	HNO3	Groundwater	✔		1			26							
			HNO3	Groundwater													
			HNO3	Groundwater													
			HNO3	Groundwater													

18.8-0.0=18.8, cs intact 02/25 - Fedex Box/Cooler

*Relinquished By	Date/Time	Received By	Date/Time
			02/27/25 1130

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA
3/2/2016

Alliance Technical Group - Akron
3310 Win Street
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 25021959 RcptNo: 1

Logged by:	Spencer M. Hartwell	2/27/2025 11:30:00 AM	Spencer M. Hartwell
Completed By:	Spencer M. Hartwell	2/28/2025 3:02:15 PM	Spencer M. Hartwell
Reviewed By:	Jennifer Woolf	2/28/2025 3:11:56 PM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐
   No. Seal Date: 2/19/2025 Signed By:
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

Alliance Technical Group - Akron
3310 Win Street
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 25021959 RcptNo: 1

April 22, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 25030754

Dear Eric Staley:

TEKLAB, INC received 1 sample on 3/18/2025 3:05:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25030754
Report Date: 22-Apr-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	8
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 25030754

Client Project: Ash Pond Monitoring Wells **Report Date:** 22-Apr-25

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 25030754
Client Project: Ash Pond Monitoring Wells
Report Date: 22-Apr-25

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25030754
Report Date: 22-Apr-25

Cooler Receipt Temp: 10.7 °C

An employee of Teklab, Inc. collected the sample(s).

Radium 226/228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 25030754
Client Project: Ash Pond Monitoring Wells
Report Date: 22-Apr-25

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2026	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2025	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 25030754
Client Project: Ash Pond Monitoring Wells
Report Date: 22-Apr-25
Lab ID: 25030754-001
Client Sample ID: AP-14
Matrix: GROUNDWATER
Collection Date: 03/18/2025 12:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	04/18/2025 0:00	R363684
Radium-228	*	0		**See Attached**	pci/L	1	04/18/2025 0:00	R363684

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25030754
Report Date: 22-Apr-25

Carrier: Daniel Crump

Received By: JMD

Completed by: Laura E Henson
On: 18-Mar-25

Reviewed by: Elizabeth A. Hurley
On: 18-Mar-25

Pages to follow: Chain of custody 1 Extra pages included 12

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	10.7
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑		
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐			

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #101358. - JD/lhenson - 3/18/2025 4:07:28 PM

Additional nitric acid (102194) was needed upon arrival at the laboratory. - JD/lhenson - 3/18/2025 4:07:30 PM

Print PDF

CHAIN OF CUSTODY

Pg __ of __ Workorder # 25030754

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 10.7 °C
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: PH 101358
Added HNO3 (102194) 1/2 JD 3/18/25

Client Comments:
Resample AP14, original WO#25022048.

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: Bret Gillihan

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25030754-001	AP-14	3-18-25 1217	Groundwater		2											✓	✓	
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	3-18-25 1505	[signature]	3/18/25 15:05

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

April 22, 2025

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 25030754

Order No.: 25031751

Dear Shelly Hennessy:

Alliance Technical Group - Akron received 1 sample(s) on 3/21/2025 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Salwa Najjar

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **25031751**
Date: **4/22/2025**

CLIENT: TEKLAB Inc,
Project: 25030754

WorkOrder Narrative:
25031751: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Alliance Technical Group - Akro
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **25031751**
Date: **4/22/2025**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **25031751**

22-Apr-25

CLIENT: TEKLAB Inc,
Project: 25030754

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
25031751-001	25030754-001		3/18/2025 12:17:00 PM	3/21/2025 12:45:00 PM	Non-Potable Water

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DATES REPORT

WO#: **25031751**

22-Apr-25

Client: TEKLAB Inc,

Project: 25030754

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
25031751-001A	25030754-001	3/18/2025 12:17:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		4/14/2025 4:00:36 PM	4/21/2025 10:58:00 AM
				Radium-228 (EPA 904.0)		4/14/2025 4:00:36 PM	4/18/2025 2:20:00 PM

Original

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Analytical Report

(consolidated)

WO#: **25031751**

Date Reported: **4/22/2025**

CLIENT: TEKLAB Inc,
Collection Date: 3/18/2025 12:17:00 PM
Project: 25030754
Lab ID: 25031751-001
Matrix: NON-POTABLE WATER
Client Sample ID: 25030754-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	4/21/2025 10:58:00 AM
Yield	1.00					1	4/21/2025 10:58:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.400	1	4/18/2025 2:20:00 PM
Yield	0.980					1	4/18/2025 2:20:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **25031751**

22-Apr-25

Client: TEKLAB Inc,
Project: 25030754 **BatchID:** **83646**

Sample ID: **MB-83646** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **4/14/2025** RunNo: **207342**
Client ID: **BatchQC** Batch ID: **83646** TestNo: **E904.0** **E903-904** Analysis Date: **4/18/2025** SeqNo: **5548239**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-83646** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **4/14/2025** RunNo: **207342**
Client ID: **BatchQC** Batch ID: **83646** TestNo: **E904.0** **E903-904** Analysis Date: **4/18/2025** SeqNo: **5548240**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.42	1.00	5.000	0	68.4	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-83646** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **4/14/2025** RunNo: **207342**
Client ID: **BatchQC** Batch ID: **83646** TestNo: **E904.0** **E903-904** Analysis Date: **4/18/2025** SeqNo: **5548241**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.87	1.00	5.000	0	57.4	50	130	3.420	17.5	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **25031751**

22-Apr-25

Client: TEKLAB Inc,
Project: 25030754 **BatchID:** **83646**

Sample ID: **25031742-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **4/14/2025** RunNo: **207342**
Client ID: **BatchQC** Batch ID: **83646** TestNo: **E904.0** **E903-904** Analysis Date: **4/18/2025** SeqNo: **5548246**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	0.800			0	0			0.9800	20.2		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **25031751**

22-Apr-25

Client: TEKLAB Inc,
Project: 25030754 **BatchID:** **83646**

Sample ID: **MB-83646** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/14/2025** RunNo: **207393**
Client ID: **BatchQC** Batch ID: **83646** TestNo: **E903.0** **E903-904** Analysis Date: **4/21/2025** SeqNo: **5549116**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-83646** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/14/2025** RunNo: **207393**
Client ID: **BatchQC** Batch ID: **83646** TestNo: **E903.0** **E903-904** Analysis Date: **4/21/2025** SeqNo: **5549117**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	3.91	1.00	5.000	0	78.2	70	130				QLR

Sample ID: **LCSD-83646** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/14/2025** RunNo: **207393**
Client ID: **BatchQC** Batch ID: **83646** TestNo: **E903.0** **E903-904** Analysis Date: **4/21/2025** SeqNo: **5549118**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.90	1.00	5.000	0	98.0	70	130	3.910	22.5	20	R

Sample ID: **25031742-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/14/2025** RunNo: **207393**
Client ID: **BatchQC** Batch ID: **83646** TestNo: **E903.0** **E903-904** Analysis Date: **4/21/2025** SeqNo: **5549123**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **25031751**

22-Apr-25

Client: TEKLAB Inc,
Project: 25030754 **BatchID:** **83646**

Sample ID: **25031742-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/14/2025** RunNo: **207393**
Client ID: **BatchQC** Batch ID: **83646** TestNo: **E903.0** **E903-904** Analysis Date: **4/21/2025** SeqNo: **5549123**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **25031743-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/14/2025** RunNo: **207393**
Client ID: **BatchQC** Batch ID: **83646** TestNo: **E903.0** **E903-904** Analysis Date: **4/21/2025** SeqNo: **5549125**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

25031751

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc 18.2-0.0=
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: 18.2 Sampler: teklab employee QC Level: 2

Fedex, cooler CS intact 3/19/25

Project# 25030754

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228.
Method changes require Teklab authorization. Samples collected from an IL site.
Batch QC is required for all analyses requested.

Contact: Shelly Hennessy Email: shennessy@teklabinc.com
Requested Due Date: Standard TAT Billing/PO: 38180 Phone: (618) 344-1004 ex 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228		CPM				PM					
	25030754-001	3/18/25 12.17	HNO3	Groundwater	✔		24, 34				1, 1					
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Aqueous												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												
			HNO3	Groundwater												

*Relinquished By	Date/Time	Received By	Date/Time
			3/21/25, 1245

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

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Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 25031751 RcptNo: 1

Logged by:	Tegan A. Richards	3/21/2025 12:45:00 PM	Tegan Richards
Completed By:	Tegan A. Richards	3/22/2025 4:31:16 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	3/24/2025 12:44:54 PM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☐ No ☑ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐
   No. Seal Date: 3/13/2025 Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:
    relinquish time & date not included

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	18.2	Good	Yes		3/19/2025	

March 31, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 25020750

Dear Eric Staley:

TEKLAB, INC received 12 samples on 2/21/2025 12:22:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Work Order: 25020750
Client Project: FGDS Landfill
Report Date: 31-Mar-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	19
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 25020750
Client Project: FGDS Landfill
Report Date: 31-Mar-25

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 25020750
Client Project: FGDS Landfill
Report Date: 31-Mar-25

Cooler Receipt Temp: 9.9 °C

An employee of Teklab, Inc. collected the sample(s).

Radium 226/228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

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Client: City Water, Light & Power

Work Order: 25020750

Client Project: FGDS Landfill

Report Date: 31-Mar-25

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2026	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2025	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 02/21/2025 10:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	02/21/2025 10:20	R360884
Depth to water	*	-5.00		**4.09**	ft	1	02/21/2025 10:20	R360884
Depth to water from measuring point	*	0		**6.89**	ft	1	02/21/2025 10:20	R360884
Elevation of groundwater surface	*	0		**539.91**	ft	1	02/21/2025 10:20	R360884
Measuring Point Elevation	*	0		**546.80**	ft	1	02/21/2025 10:20	R360884
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	02/21/2025 10:20	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.1**	NTU	1	02/21/2025 10:20	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**49.0**	°F	1	02/21/2025 10:20	R360884
SW-846 9040B								
pH, Field	*	1.00		**7.07**		1	02/21/2025 10:20	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**680**	µmhos/cm @25C	1	02/21/2025 10:20	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**940**	mg/L	1	02/24/2025 14:54	R360789
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 21:22	R360629
Chloride	NELAP	5.00		**98.4**	mg/L	10	02/21/2025 21:22	R360629
Sulfate	NELAP	10.0		**254**	mg/L	10	02/21/2025 21:22	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0086**	mg/L	1	02/24/2025 10:03	235106
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 10:03	235106
Boron	NELAP	0.0200		**0.125**	mg/L	1	02/24/2025 10:03	235106
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 10:03	235106
Calcium	NELAP	0.100	S	**159**	mg/L	1	02/24/2025 10:03	235106
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 10:03	235106
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 10:03	235106
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 10:03	235106
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 10:03	235106
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 14:57	235106
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 14:57	235106
Lithium	*	0.0030		**0.0135**	mg/L	5	02/25/2025 11:22	235106
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2025 11:22	235106
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 14:57	235106
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/25/2025 10:03	235158
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 02/19/2025 13:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.05**	ft	1	02/19/2025 13:25	R360884
Depth to water	*	-5.00		**21.79**	ft	1	02/19/2025 13:25	R360884
Depth to water from measuring point	*	0		**24.40**	ft	1	02/19/2025 13:25	R360884
Elevation of groundwater surface	*	0		**532.80**	ft	1	02/19/2025 13:25	R360884
Measuring Point Elevation	*	0		**557.20**	ft	1	02/19/2025 13:25	R360884
Measuring Point Height Above Land Surface	*	0		**2.61**	ft	1	02/19/2025 13:25	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.2**	NTU	1	02/19/2025 13:25	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**52.2**	°F	1	02/19/2025 13:25	R360884
SW-846 9040B								
pH, Field	*	1.00		**6.80**		1	02/19/2025 13:25	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**693**	µmhos/cm @25C	1	02/19/2025 13:25	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	25		**465**	mg/L	1.25	02/20/2025 11:41	R360650
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/20/2025 12:01	R360529
Chloride	NELAP	5.00		**5.69**	mg/L	10	02/20/2025 12:01	R360529
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/20/2025 12:01	R360529
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.164**	mg/L	1	02/20/2025 16:47	235016
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 16:47	235016
Boron	NELAP	0.0200		**0.0857**	mg/L	1	02/20/2025 16:47	235016
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 16:47	235016
Calcium	NELAP	0.100		**101**	mg/L	1	02/24/2025 11:09	235016
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:47	235016
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 16:47	235016
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 16:47	235016
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 16:47	235016
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2025 16:32	235016
Arsenic	NELAP	0.0010		**0.0044**	mg/L	5	02/21/2025 16:32	235016
Lithium	*	0.0030		**< 0.0030**	mg/L	5	02/20/2025 15:22	235016
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2025 16:32	235016
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 15:22	235016
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/20/2025 11:03	235028
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-003 **Client Sample ID:** R111

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 11:41

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.25**	ft	1	02/20/2025 11:41	R360884
Depth to water	*	-5.00		**25.04**	ft	1	02/20/2025 11:41	R360884
Depth to water from measuring point	*	0		**25.04**	ft	1	02/20/2025 11:41	R360884
Elevation of groundwater surface	*	0		**528.96**	ft	1	02/20/2025 11:41	R360884
Measuring Point Elevation	*	0		**554.00**	ft	1	02/20/2025 11:41	R360884
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	02/20/2025 11:41	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.8**	NTU	1	02/20/2025 11:41	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**46.8**	°F	1	02/20/2025 11:41	R360884
SW-846 9040B								
pH, Field	*	1.00		**6.86**		1	02/20/2025 11:41	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1090**	µmhos/cm @25C	1	02/20/2025 11:41	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	33		**725**	mg/L	1.67	02/21/2025 14:57	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 13:59	R360629
Chloride	NELAP	5.00		**169**	mg/L	10	02/21/2025 13:59	R360629
Sulfate	NELAP	10.0		**24.7**	mg/L	10	02/21/2025 13:59	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.586**	mg/L	1	02/24/2025 14:47	235068
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 14:47	235068
Boron	NELAP	0.0200		**3.09**	mg/L	1	02/24/2025 14:47	235068
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 14:47	235068
Calcium	NELAP	0.100		**148**	mg/L	1	02/24/2025 14:47	235068
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 14:47	235068
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 14:47	235068
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 14:47	235068
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 14:47	235068
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:52	235068
Arsenic	NELAP	0.0010		**0.0156**	mg/L	5	02/25/2025 10:43	235068
Lithium	*	0.0030		**0.0055**	mg/L	5	02/25/2025 10:43	235068
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:52	235068
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 11:52	235068
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:37	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/25/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-004 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 12:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.99**	ft	1	02/20/2025 12:55	R360884
Depth to water	*	-5.00		**26.31**	ft	1	02/20/2025 12:55	R360884
Depth to water from measuring point	*	0		**28.49**	ft	1	02/20/2025 12:55	R360884
Elevation of groundwater surface	*	0		**526.31**	ft	1	02/20/2025 12:55	R360884
Measuring Point Elevation	*	0		**554.80**	ft	1	02/20/2025 12:55	R360884
Measuring Point Height Above Land Surface	*	0		**2.18**	ft	1	02/20/2025 12:55	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.8**	NTU	1	02/20/2025 12:55	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**47.6**	°F	1	02/20/2025 12:55	R360884
SW-846 9040B								
pH, Field	*	1.00		**7.07**		1	02/20/2025 12:55	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1360**	µmhos/cm @25C	1	02/20/2025 12:55	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	33		**1360**	mg/L	1.67	02/21/2025 14:57	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 14:11	R360629
Chloride	NELAP	5.00		**192**	mg/L	10	02/21/2025 14:11	R360629
Sulfate	NELAP	10.0		**227**	mg/L	10	02/21/2025 14:11	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.453**	mg/L	1	02/24/2025 11:11	235055
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 11:11	235055
Boron	NELAP	0.0200		**0.459**	mg/L	1	02/24/2025 11:11	235055
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 11:11	235055
Calcium	NELAP	0.100		**223**	mg/L	1	02/24/2025 11:11	235055
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:11	235055
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:11	235055
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 11:11	235055
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 11:11	235055
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 10:07	235055
Arsenic	NELAP	0.0010		**0.0010**	mg/L	5	02/25/2025 11:00	235055
Lithium	*	0.0030		**0.0322**	mg/L	5	02/24/2025 10:07	235055
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 10:07	235055
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2025 11:00	235055
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:39	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 02/21/2025 9:42

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**524.85**	ft	1	02/21/2025 9:42	R360884
Depth to water	*	-5.00		**2.51**	ft	1	02/21/2025 9:42	R360884
Depth to water from measuring point	*	0		**5.01**	ft	1	02/21/2025 9:42	R360884
Elevation of groundwater surface	*	0		**532.69**	ft	1	02/21/2025 9:42	R360884
Measuring Point Elevation	*	0		**537.70**	ft	1	02/21/2025 9:42	R360884
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	02/21/2025 9:42	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**68**	NTU	1	02/21/2025 9:42	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**41.0**	°F	1	02/21/2025 9:42	R360884
SW-846 9040B								
pH, Field	*	1.00		**6.40**		1	02/21/2025 9:42	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1690**	µmhos/cm @25C	1	02/21/2025 9:42	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1390**	mg/L	1	02/24/2025 14:56	R360789
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 21:34	R360629
Chloride	NELAP	5.00		**59.2**	mg/L	10	02/21/2025 21:34	R360629
Sulfate	NELAP	10.0		**151**	mg/L	10	02/21/2025 21:34	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.330**	mg/L	1	02/24/2025 10:05	235106
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 10:05	235106
Boron	NELAP	0.0200		**0.968**	mg/L	1	02/24/2025 10:05	235106
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 10:05	235106
Calcium	NELAP	0.100		**337**	mg/L	1	02/24/2025 10:05	235106
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 10:05	235106
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 10:05	235106
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 10:05	235106
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 10:05	235106
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 13:20	235106
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 13:20	235106
Lithium	*	0.0030		**0.0031**	mg/L	5	02/25/2025 10:48	235106
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2025 10:48	235106
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 13:20	235106
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/25/2025 10:05	235158
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-006 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 02/21/2025 9:36

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	02/21/2025 9:36	R360884
Depth to water	*	-5.00		**15.89**	ft	1	02/21/2025 9:36	R360884
Depth to water from measuring point	*	0		**15.89**	ft	1	02/21/2025 9:36	R360884
Elevation of groundwater surface	*	0		**537.21**	ft	1	02/21/2025 9:36	R360884
Measuring Point Elevation	*	0		**553.10**	ft	1	02/21/2025 9:36	R360884
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	02/21/2025 9:36	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**17**	NTU	1	02/21/2025 9:36	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.8**	°F	1	02/21/2025 9:36	R360884
SW-846 9040B								
pH, Field	*	1.00		**6.66**		1	02/21/2025 9:36	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1910**	µmhos/cm @25C	1	02/21/2025 9:36	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1400**	mg/L	2.5	02/24/2025 14:57	R360789
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 21:46	R360629
Chloride	NELAP	5.00		**35.2**	mg/L	10	02/21/2025 21:46	R360629
Sulfate	NELAP	10.0		**548**	mg/L	10	02/21/2025 21:46	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.708**	mg/L	1	02/24/2025 10:06	235106
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 10:06	235106
Boron	NELAP	0.0200		**7.50**	mg/L	1	02/24/2025 10:06	235106
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 10:06	235106
Calcium	NELAP	0.100		**249**	mg/L	1	02/24/2025 10:06	235106
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 10:06	235106
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 10:06	235106
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 10:06	235106
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 10:06	235106
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 14:17	235106
Arsenic	NELAP	0.0010		**0.0113**	mg/L	5	02/24/2025 14:17	235106
Lithium	*	0.0030		**0.0076**	mg/L	5	02/25/2025 10:54	235106
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/25/2025 10:54	235106
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/24/2025 14:17	235106
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/25/2025 10:07	235158
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 13:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	02/20/2025 13:25	R360884
Depth to water	*	-5.00		**26.38**	ft	1	02/20/2025 13:25	R360884
Depth to water from measuring point	*	0		**28.25**	ft	1	02/20/2025 13:25	R360884
Elevation of groundwater surface	*	0		**527.35**	ft	1	02/20/2025 13:25	R360884
Measuring Point Elevation	*	0		**555.60**	ft	1	02/20/2025 13:25	R360884
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	02/20/2025 13:25	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**30**	NTU	1	02/20/2025 13:25	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.8**	°F	1	02/20/2025 13:25	R360884
SW-846 9040B								
pH, Field	*	1.00		**6.95**		1	02/20/2025 13:25	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1570**	µmhos/cm @25C	1	02/20/2025 13:25	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	200		**1240**	mg/L	10	02/21/2025 14:58	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 14:22	R360629
Chloride	NELAP	5.00		**28.0**	mg/L	10	02/21/2025 14:22	R360629
Sulfate	NELAP	10.0		**314**	mg/L	10	02/21/2025 14:22	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.560**	mg/L	1	02/24/2025 11:12	235055
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 11:12	235055
Boron	NELAP	0.0200		**3.54**	mg/L	1	02/24/2025 11:12	235055
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 11:12	235055
Calcium	NELAP	0.100		**169**	mg/L	1	02/24/2025 11:12	235055
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:12	235055
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:12	235055
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 11:12	235055
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 11:12	235055
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 10:13	235055
Arsenic	NELAP	0.0010		**0.0169**	mg/L	5	02/25/2025 11:05	235055
Lithium	*	0.0030		**0.0080**	mg/L	5	02/24/2025 10:13	235055
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 10:13	235055
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2025 11:05	235055
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:41	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 13:39

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	02/20/2025 13:39	R360884
Depth to water	*	-5.00		**27.98**	ft	1	02/20/2025 13:39	R360884
Depth to water from measuring point	*	0		**29.72**	ft	1	02/20/2025 13:39	R360884
Elevation of groundwater surface	*	0		**524.68**	ft	1	02/20/2025 13:39	R360884
Measuring Point Elevation	*	0		**554.40**	ft	1	02/20/2025 13:39	R360884
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	02/20/2025 13:39	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**14**	NTU	1	02/20/2025 13:39	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**50.2**	°F	1	02/20/2025 13:39	R360884
SW-846 9040B								
pH, Field	*	1.00		**6.75**		1	02/20/2025 13:39	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1420**	µmhos/cm @25C	1	02/20/2025 13:39	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	25		**1320**	mg/L	1.25	02/21/2025 14:59	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 15:09	R360629
Chloride	NELAP	5.00		**35.0**	mg/L	10	02/21/2025 15:09	R360629
Sulfate	NELAP	10.0		**510**	mg/L	10	02/21/2025 15:09	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.220**	mg/L	1	02/24/2025 11:13	235055
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 11:13	235055
Boron	NELAP	0.0200		**10.3**	mg/L	1	02/24/2025 11:13	235055
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 11:13	235055
Calcium	NELAP	0.100		**220**	mg/L	1	02/24/2025 11:13	235055
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:13	235055
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:13	235055
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 11:13	235055
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 11:13	235055
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 10:18	235055
Arsenic	NELAP	0.0010		**0.0010**	mg/L	5	02/25/2025 11:11	235055
Lithium	*	0.0030		**0.0091**	mg/L	5	02/24/2025 10:18	235055
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 10:18	235055
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2025 11:11	235055
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:44	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 12:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	02/20/2025 12:21	R360884
Depth to water	*	-5.00		**10.70**	ft	1	02/20/2025 12:21	R360884
Depth to water from measuring point	*	0		**13.45**	ft	1	02/20/2025 12:21	R360884
Elevation of groundwater surface	*	0		**542.15**	ft	1	02/20/2025 12:21	R360884
Measuring Point Elevation	*	0		**555.60**	ft	1	02/20/2025 12:21	R360884
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	02/20/2025 12:21	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.4**	NTU	1	02/20/2025 12:21	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**48.2**	°F	1	02/20/2025 12:21	R360884
SW-846 9040B								
pH, Field	*	1.00		**6.64**		1	02/20/2025 12:21	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1310**	µmhos/cm @25C	1	02/20/2025 12:21	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**1110**	mg/L	2.5	02/21/2025 14:59	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 15:21	R360629
Chloride	NELAP	5.00		**35.4**	mg/L	10	02/21/2025 15:21	R360629
Sulfate	NELAP	10.0		**374**	mg/L	10	02/21/2025 15:21	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.486**	mg/L	1	02/24/2025 11:14	235055
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 11:14	235055
Boron	NELAP	0.0200		**8.79**	mg/L	1	02/24/2025 11:14	235055
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 11:14	235055
Calcium	NELAP	0.100		**186**	mg/L	1	02/24/2025 11:14	235055
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:14	235055
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:14	235055
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 11:14	235055
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 11:14	235055
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 10:24	235055
Arsenic	NELAP	0.0010		**0.146**	mg/L	5	02/25/2025 11:17	235055
Lithium	*	0.0030		**0.0108**	mg/L	5	02/24/2025 10:24	235055
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 10:24	235055
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2025 11:17	235055
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020	S	**< 0.00020**	mg/L	1	02/21/2025 14:46	235075
Matrix spike did not recover within control limits due to matrix interference. Verified by bench spike.								
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-010 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 10:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	02/20/2025 10:18	R360884
Depth to water	*	-5.00		**1.23**	ft	1	02/20/2025 10:18	R360884
Depth to water from measuring point	*	0		**4.53**	ft	1	02/20/2025 10:18	R360884
Elevation of groundwater surface	*	0		**525.45**	ft	1	02/20/2025 10:18	R360884
Measuring Point Elevation	*	0		**529.98**	ft	1	02/20/2025 10:18	R360884
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	02/20/2025 10:18	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**18**	NTU	1	02/20/2025 10:18	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**41.9**	°F	1	02/20/2025 10:18	R360884
SW-846 9040B								
pH, Field	*	1.00		**7.05**		1	02/20/2025 10:18	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**764**	µmhos/cm @25C	1	02/20/2025 10:18	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**588**	mg/L	1	02/21/2025 15:00	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 15:32	R360629
Chloride	NELAP	5.00		**19.5**	mg/L	10	02/21/2025 15:32	R360629
Sulfate	NELAP	10.0		**53.7**	mg/L	10	02/21/2025 15:32	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.283**	mg/L	1	02/24/2025 11:19	235055
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 11:19	235055
Boron	NELAP	0.0200		**1.48**	mg/L	1	02/24/2025 11:19	235055
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 11:19	235055
Calcium	NELAP	0.100		**111**	mg/L	1	02/24/2025 11:19	235055
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:19	235055
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:19	235055
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 11:19	235055
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 11:19	235055
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:02	235055
Arsenic	NELAP	0.0010		**0.0017**	mg/L	5	02/25/2025 12:25	235055
Lithium	*	0.0030		**0.0051**	mg/L	5	02/25/2025 12:25	235055
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:02	235055
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2025 12:25	235055
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 14:58	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-011 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 02/18/2025 12:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	02/18/2025 12:00	R360884
Depth to water	*	-5.00		**6.86**	ft	1	02/18/2025 12:00	R360884
Depth to water from measuring point	*	0		**9.56**	ft	1	02/18/2025 12:00	R360884
Elevation of groundwater surface	*	0		**529.94**	ft	1	02/18/2025 12:00	R360884
Measuring Point Elevation	*	0		**539.50**	ft	1	02/18/2025 12:00	R360884
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	02/18/2025 12:00	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**21**	NTU	1	02/18/2025 12:00	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**53.5**	°F	1	02/18/2025 12:00	R360884
SW-846 9040B								
pH, Field	*	1.00		**7.10**		1	02/18/2025 12:00	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**623**	µmhos/cm @25C	1	02/18/2025 12:00	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	25		**372**	mg/L	1.25	02/19/2025 10:55	R360584
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/19/2025 0:00	R360503
Chloride	NELAP	5.00		**25.4**	mg/L	10	02/19/2025 0:00	R360503
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/19/2025 0:00	R360503
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.136**	mg/L	1	02/20/2025 17:08	234945
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/20/2025 17:08	234945
Boron	NELAP	0.0200		**0.126**	mg/L	1	02/20/2025 17:08	234945
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/20/2025 17:08	234945
Calcium	NELAP	0.100		**64.5**	mg/L	1	02/24/2025 11:25	234945
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:08	234945
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/20/2025 17:08	234945
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/20/2025 17:08	234945
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/20/2025 17:08	234945
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:19	234945
Arsenic	NELAP	0.0010		**0.0961**	mg/L	5	02/20/2025 11:19	234945
Lithium	*	0.0030		**0.0047**	mg/L	5	02/24/2025 8:08	234945
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/20/2025 11:19	234945
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/20/2025 11:19	234945
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/19/2025 11:09	234976
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/26/2025 0:00	R362556

Client: City Water, Light & Power **Work Order:** 25020750

Client Project: FGDS Landfill **Report Date:** 31-Mar-25

Lab ID: 25020750-012 **Client Sample ID:** P07D

Matrix: GROUNDWATER **Collection Date:** 02/20/2025 11:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**528.25**	ft	1	02/20/2025 11:12	R360884
Depth to water	*	-5.00		**1.49**	ft	1	02/20/2025 11:12	R360884
Depth to water from measuring point	*	0		**4.49**	ft	1	02/20/2025 11:12	R360884
Elevation of groundwater surface	*	0		**523.76**	ft	1	02/20/2025 11:12	R360884
Measuring Point Elevation	*	0		**528.25**	ft	1	02/20/2025 11:12	R360884
Measuring Point Height Above Land Surface	*	0		**3.00**	ft	1	02/20/2025 11:12	R360884
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**40**	NTU	1	02/20/2025 11:12	R360884
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**46.8**	°F	1	02/20/2025 11:12	R360884
SW-846 9040B								
pH, Field	*	1.00		**6.78**		1	02/20/2025 11:12	R360884
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1250**	µmhos/cm @25C	1	02/20/2025 11:12	R360884
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		**990**	mg/L	2.5	02/21/2025 15:01	R360717
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/21/2025 15:44	R360629
Chloride	NELAP	5.00		**31.4**	mg/L	10	02/21/2025 15:44	R360629
Sulfate	NELAP	10.0		**287**	mg/L	10	02/21/2025 15:44	R360629
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.913**	mg/L	1	02/24/2025 11:20	235055
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/24/2025 11:20	235055
Boron	NELAP	0.0200		**5.26**	mg/L	1	02/24/2025 11:20	235055
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/24/2025 11:20	235055
Calcium	NELAP	0.100		**179**	mg/L	1	02/24/2025 11:20	235055
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:20	235055
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/24/2025 11:20	235055
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/24/2025 11:20	235055
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/24/2025 11:20	235055
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:07	235055
Arsenic	NELAP	0.0010		**0.0276**	mg/L	5	02/25/2025 12:31	235055
Lithium	*	0.0030		**0.0081**	mg/L	5	02/25/2025 12:31	235055
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2025 11:07	235055
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/25/2025 12:31	235055
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/21/2025 15:00	235075
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556
Radium-228	*	0		**See Attached**	pci/L	1	03/21/2025 0:00	R362556

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 25020750
Report Date: 31-Mar-25

Carrier: Justin Colp
Received By: AMD

Completed by: Amber Dilallo
On: 18-Feb-25

Reviewed by: Ellie Hopkins
On: 21-Feb-25

Pages to follow: Chain of custody 5 Extra pages included 49

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 9.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Samples were received on 2/18/25 at 1500 on ice [9.9, 11.5C - LTG#5]. pH strip #101358. - amberdilallo - 2/18/2025 3:33:57 PM

Samples were received on 2/19/25 at 15.50 on ice [temp10.1C - LTG#9]. pH#101358 -EK/ lhenson - 2/19/2025 4:09:47 PM

Samples were received on 2/20/25 at 15.55 on ice [temp5.7C, 5.9C - LTG#9]. pH#101358. Added nitric acid (102194) to G121 and AW-1. - lhenson - 2/20/2025 4:39:14 PM

Samples were received on 12/21/25 at 12.22 on ice [temp5.5C - LTG#9]. pH#101358/98858. Added nitric acid (102194) to G113 and G120. - EK/lhenson - 2/21/2025 1:04:17 PM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25020750

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 9.9 . 11.5°C #5
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: 101358 dm 2/18/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event.

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25020750-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G110		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	R111		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	G113		Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	G120		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	G121		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	G122		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	RW-3	2-18-25 1700	Groundwater	0	0								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	2-18-25 1500	Amber Quall	2/18/25 1500

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25020750

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 10.1 °C #9
Preserved in: [ ] LAB [x] FIELD
FOR LAB USE ONLY
LAB NOTES: pH V 101358 EIC 2119 2025

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event.

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Gdp

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED																
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity											
25020750-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓											
002	G110	2-4-25 / 1325	Groundwater	1	2								✓	✓	✓	✓	✓	✓											
003	R111		Groundwater	1	2								✓	✓	✓	✓	✓	✓											
004	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓											
005	G113		Groundwater	1	2								✓	✓	✓	✓	✓	✓											
006	G120		Groundwater	1	2								✓	✓	✓	✓	✓	✓											
007	G121		Groundwater	1	2								✓	✓	✓	✓	✓	✓											
008	G122		Groundwater	1	2								✓	✓	✓	✓	✓	✓											
009	AW-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓											
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓											
011	RW-3		Groundwater	0	0								✓	✓	✓	✓	✓	✓											

Relinquished By	Date/Time	Received By	Date/Time
	2-19 / 1550		2/19/25 15:50

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25020750

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 5.7/5.9 °C #9
Preserved in: [x] LAB [ ] FIELD
FOR LAB USE ONLY
LAB NOTES: Added HNO3(102194) to G121 2 liter and AW-1 2 liter. PM V101358 EK 2/20/2025

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event.

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25020750-001	R101		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G110		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	R111	2-20-25 / 1141	Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	G112	2-20-25 / 1255	Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	G113		Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	G120		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	G121	2-20-25 / 1325	Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	G122	2-20-25 / 1334	Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AW-1	2-20-25 / 1221	Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AW-2	2-20-25 / 1018	Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	RW-3		Groundwater	0	0								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	2-20 / 1555		2/20/25 1555

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25020750

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER: FGDS Landfill
SAMPLE COLLECTOR'S NAME: Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25020750 02	P07D	2-20-25 / 1112	Groundwater	1	2								✔	✔	✔	✔	✔	✔
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	2-20 / 1555		2/20/25 1555

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25020750

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 5.5 °C #9
Preserved in: [x] LAB [ ] FIELD
FOR LAB USE ONLY
LAB NOTES: Added HNO3 (102194) to G113 and G120. PhV98858, 101358 EK 2/21/2025

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring 4Q2023-3Q2025
RW-3 report data from Ash Pond sampling event.

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25020750-001	R101	2-21-25 / 1020	Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G110		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	R111		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	G112		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	G113	2-21-25 / 0942	Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	G120	2-21-25 / 0936	Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	G121		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	G122		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	RW-3		Groundwater	0	0								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Tracy Carrell	2/21/25 1222	Emily Kosakoski	2/21/2025 1222

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Field Data Sheet

Project Name:	FGDS LF	**Monitoring Point:**	R101
Project Location:	Springfield, IL	**Sample ID:**	001
W.O. Number (s):	25020750	**Date (s):**	2/21/2025

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 15 °F Wind Direction: ☐ N ☐ S ☑ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/21/2025 9:52

Static Water Level: 6.89 feet below TOC

Total Depth: 35.27 feet below TOC

Water Column: 28.38 feet

Purging Activities

Purged By: TC Purge Date: 2/21/2025

Purge Method: Peristaltic Pump Well Diameter: 4"

Purge Volume Calculation (L): 28.38 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 8.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:54	0.0	308	purge start time						
10:02	2.5	↓	7.01	681.10	9.04	7.11	68.90	5.04	
10:05	3.4		7.03	681.10	8.94	6.96	69.60	6.98	
10:08	4.3		7.04	680.60	9.10	6.78	70.30	5.30	
10:11	5.2		7.05	680.30	9.12	6.57	71.10	3.96	
10:14	6.2		7.06	681.50	9.11	6.44	71.80	3.31	
10:17	7.1		7.07	681.00	8.82	6.31	72.70	3.08	
10:20	8.0		7.07	679.80	9.47	6.27	73.10	3.06	

Sampling Activities

Sampled By: TC Sample Date/Time: 2/21/2025 10:20

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 7.07 pH 679.80 Spec. Cond. 9.47 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 10.02 feet below TOC Drawdown: 3.13 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Tracy Carroll **Date:** 2/21/2025

Field Data Sheet

Project Name: FGDS LF
Project Location: Springfield, IL
W.O. Number (s): 25020750
Monitoring Point: G110
Sample ID: 002
Date (s): 2/19/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 16 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/19/2025 13:10
Static Water Level: 24.40 feet below TOC
Total Depth: 57.15 feet below TOC
Water Column: 32.75 feet

Purging Activities

Purged By: JC — Purge Date: 2/19/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 32.75 ft. x 0.022 = 0.72 L x 3 Vol. = 2.16 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:10	0.0	267	purge start time						
13:16	1.6	↓	6.81	695.30	11.06	1.69	-80.60	2.57	
13:19	2.4		6.81	694.80	11.20	1.54	-84.90	2.32	
13:22	3.2		6.80	694.80	11.05	1.41	-87.40	2.86	
13:25	4.0		6.80	693.10	11.20	1.33	-89.00	4.16	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/19/2025 13:25
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.80 pH — 693.10 Spec. Cond. — 11.20 Temp
Field Filtered: Yes — Filter Type: Inline Disposable
Water Level: 24.48 feet below TOC — Drawdown: 0.08 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp — **Date:** 2/19/2025

Field Data Sheet

Project Name:	FGDS LF	**Monitoring Point:**	R111
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	25020750	**Date (s):**	2/20/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 11 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 11:26

Static Water Level: 25.04 feet below TOC

Total Depth: 55.75 feet below TOC

Water Column: 30.71 feet

Purging Activities

Purged By: JC — Purge Date: 2/20/2025

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 30.71 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:27	0.0	214	purge start time						
11:32	1.1	↓	6.94	851.90	8.56	1.64	-103.20	6.33	
11:35	1.7		6.92	806.60	8.51	1.39	-107.50	4.95	
11:38	2.4		6.89	895.30	8.40	1.29	-109.10	3.74	
11:41	3.0		6.86	1,087.10	8.21	1.23	-109.20	3.75	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/20/2025 11:41

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

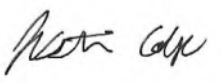
Sample Parameters: 6.86 pH — 1,087.10 Spec. Cond. — 8.21 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 25.18 feet below TOC — Drawdown: 0.14 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By:  **Date:** 2/20/2025

Field Data Sheet

Project Name:	FGDS LF	**Monitoring Point:**	G112
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	25020750	**Date (s):**	2/20/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 17 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 12:38

Static Water Level: 28.49 feet below TOC

Total Depth: 58.81 feet below TOC

Water Column: 30.32 feet

Purging Activities

Purged By: JC — Purge Date: 2/20/2025

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 30.32 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:40	0.0	200	purge start time						
12:46	1.2	↓	7.06	1,328.20	8.92	2.09	-120.20	4.12	
12:49	1.8		7.06	1,336.20	8.54	2.39	-124.20	3.97	
12:52	2.4		7.07	1,342.30	8.55	2.47	-124.60	4.26	
12:55	3.0		7.07	1,363.10	8.65	2.50	-123.60	3.81	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/20/2025 12:55

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

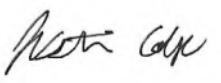
Sample Parameters: 7.07 pH — 1,363.10 Spec. Cond. — 8.65 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 28.49 feet below TOC — Drawdown: 0.00 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By:  **Date:** 2/20/2025

Field Data Sheet

Project Name:	FGDS LF	**Monitoring Point:**	G113
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	25020750	**Date (s):**	2/21/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 15 °F Wind Direction: ☐ N ☐ S ☑ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/21/2025 9:11

Static Water Level: 5.01 feet below TOC

Total Depth: 12.85 feet below TOC

Water Column: 7.84 feet

Purging Activities

Purged By: JC Purge Date: 2/21/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.84 ft. x 0.022 = 0.17 L x 3 Vol. = 0.51 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 2.50 L

Physical appearance of purge water: Cloudy Odor: None Color: lt brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:27	0.0	167	purge start time						
9:30	0.5	↓	6.55	1,694.40	5.46	2.95	-105.30	84.13	
9:33	1.0		6.47	1,683.60	4.66	1.88	-96.90	82.59	
9:36	1.5		6.43	1,681.50	4.84	1.65	-98.10	59.92	
9:39	2.0		6.41	1,680.30	5.12	1.48	-100.40	59.73	
9:42	2.5		6.40	1,688.90	5.02	1.32	-102.50	68.40	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/21/2025 9:42

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.40 pH 1,688.90 Spec. Cond. 5.02 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 7.45 feet below TOC Drawdown: 2.44 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp **Date:** 2/21/2025

Field Data Sheet

Project Name:	FGDS LF	**Monitoring Point:**	G120
Project Location:	Springfield, IL	**Sample ID:**	006
W.O. Number (s):	25020750	**Date (s):**	2/21/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 15 °F Wind Direction: ☐ N ☐ S ☑ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/21/2025 9:15

Static Water Level: 15.89 feet below TOC

Total Depth: 50.37 feet below TOC

Water Column: 34.48 feet

Purging Activities

Purged By: BG Purge Date: 2/21/2025

Purge Method: Submersible Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.48 ft. x 0.022 = 0.76 L x 3 Vol. = 2.28 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: Moderate Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:15	0.0	286	purge start time						
9:24	2.6	↓	6.68	1,927.00	11.01	3.56	-117.50	72.51	
9:27	3.4		6.66	1,924.20	13.36	2.96	-123.80	21.63	
9:30	4.3		6.66	1,923.00	13.29	2.61	-127.10	12.70	
9:33	5.1		6.66	1,921.80	13.29	2.37	-128.90	13.74	
9:36	6.0		6.66	1,914.80	13.23	2.20	-130.40	16.78	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/21/2025 9:36

Sample Method: Low Flow Sample Equipment: Submersible Pump

Sample Parameters: 6.66 pH 1,914.80 Spec. Cond. 13.23 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 16.34 feet below TOC Drawdown: 0.45 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Brett Gillihan **Date:** 2/21/2025

Field Data Sheet

Project Name:	FGDS LF	**Monitoring Point:**	G121
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	25020750	**Date (s):**	2/20/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 17 °F Wind Direction: ☐ N ☐ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/21/2025 13:01

Static Water Level: 28.25 feet below TOC

Total Depth: 58.56 feet below TOC

Water Column: 30.31 feet

Purging Activities

Purged By: BG Purge Date: 2/20/2025

Purge Method: Submersible Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.31 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 10.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:01	0.0	417	purge start time						
13:13	5.0	↓	6.95	1,563.90	12.00	3.36	-117.40	41.75	
13:16	6.3		6.95	1,579.30	12.12	2.80	-121.70	27.75	
13:19	7.5		6.95	1,565.20	12.25	2.47	-123.30	33.21	
13:22	8.8		6.95	1,564.30	12.48	2.19	-126.30	30.81	
13:25	10.0		6.95	1,565.50	12.64	1.97	-128.70	30.48	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/20/2025 13:25

Sample Method: Low Flow Sample Equipment: Submersible Pump

Sample Parameters: 6.95 pH 1,565.50 Spec. Cond. 12.64 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 29.31 feet below TOC Drawdown: 1.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Brett Gillihan **Date:** 2/20/2025

Field Data Sheet

Project Name: FGDS LF
Project Location: Springfield, IL
W.O. Number (s): 25020750
Monitoring Point: G122
Sample ID: 008
Date (s): 2/20/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 18 °F Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 13:21
Static Water Level: 29.72 feet below TOC
Total Depth: 49.29 feet below TOC
Water Column: 19.57 feet

Purging Activities

Purged By: JC Purge Date: 2/20/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 19.57 ft. x 0.022 = 0.43 L x 3 Vol. = 1.29 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:21	0.0	222	purge start time						
13:24	0.7	↓	6.95	1,403.30	11.69	3.44	-26.40	13.20	
13:27	1.3		6.84	1,426.70	10.26	2.18	-15.00	13.16	
13:30	2.0		6.80	1,417.30	10.09	1.92	-9.40	12.82	
13:33	2.7		6.78	1,421.70	10.05	1.78	-6.40	12.78	
13:36	3.3		6.76	1,419.90	10.15	1.56	-4.50	13.40	
13:39	4.0		6.75	1,424.40	10.11	1.48	-3.20	14.15	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/20/2025 13:39
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.75 pH 1,424.40 Spec. Cond. 10.11 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 29.76 feet below TOC Drawdown: 0.04 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp **Date:** 2/20/2025

Field Data Sheet

Project Name: FGDS LF
Project Location: Springfield, IL
W.O. Number (s): 25020750
Monitoring Point: AW-1
Sample ID: 009
Date (s): 2/20/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 15 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 12:06
Static Water Level: 13.45 feet below TOC
Total Depth: 54.81 feet below TOC
Water Column: 41.36 feet

Purging Activities

Purged By: JC — Purge Date: 2/20/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 41.36 ft. x 0.022 = 0.91 L x 3 Vol. = 2.73 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:07	0.0	214	purge start time						
12:15	1.7	↓	6.66	1,309.30	8.60	5.87	-75.60	9.62	
12:18	2.4		6.65	1,312.30	8.97	6.03	-77.20	8.26	
12:21	3.0		6.64	1,313.90	9.02	6.19	-78.20	8.45	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/20/2025 12:21
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.64 pH — 1,313.90 Spec. Cond. — 9.02 Temp
Field Filtered: Yes — Filter Type: Inline Disposable
Water Level: 15.57 feet below TOC — Drawdown: 2.12 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp — **Date:** 2/20/2025

Field Data Sheet

Project Name:	FGDS LF	**Monitoring Point:**	AW-2
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	25020750	**Date (s):**	2/20/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 6 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 9:42

Static Water Level: 4.53 feet below TOC

Total Depth: 32.64 feet below TOC

Water Column: 28.11 feet

Purging Activities

Purged By: JC — Purge Date: 2/20/2025

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 28.11 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:53	0.0	240	purge start time						
9:57	1.0	↓	7.08	771.10	5.54	2.16	47.20	37.34	
10:00	1.7		7.05	764.70	4.92	1.87	35.40	40.57	
10:03	2.4		7.05	763.70	5.38	1.63	18.90	30.93	
10:06	3.1		7.05	764.50	5.25	1.51	7.50	25.69	
10:09	3.8		7.05	765.40	5.92	1.38	4.20	26.14	
10:12	4.6		7.05	767.40	5.19	1.34	1.30	17.26	
10:15	5.3		7.05	766.70	5.52	1.29	0.40	13.58	
10:18	6.0		7.05	763.60	5.52	1.27	-0.10	17.95	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/20/2025 10:18

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 7.05 pH — 763.60 Spec. Cond. — 5.52 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 5.49 feet below TOC — Drawdown: 0.96 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp — **Date:** 2/20/2025

Field Data Sheet

Project Name:	FGDS LF	**Monitoring Point:**	RW-3
Project Location:	Springfield, IL	**Sample ID:**	011
W.O. Number (s):	25020750	**Date (s):**	2/18/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 8 °F Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	No

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/18/2025 11:44

Static Water Level: 9.56 feet below TOC

Total Depth: 44.01 feet below TOC

Water Column: 34.45 feet

Purging Activities

Purged By: JC Purge Date: 2/18/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.45 ft. x 0.022 = 0.76 L x 3 Vol. = 2.28 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: ltbrown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:45	0.0	333	purge start time						
11:48	1.0	↓	7.08	616.30	11.66	1.23	-125.20	41.78	
11:51	2.0		7.08	629.50	11.89	0.70	-143.50	48.63	
11:54	3.0		7.09	631.70	11.94	0.58	-151.00	29.58	
11:57	4.0		7.10	629.70	11.94	0.54	-154.20	25.24	
12:00	5.0		7.10	622.80	11.96	0.54	-154.20	20.73	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/18/2025 12:00

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.10 pH 622.80 Spec. Cond. 11.96 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 15.15 feet below TOC Drawdown: 5.59 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By: Justin Colp **Date:** 2/18/2025

Field Data Sheet

Project Name:	FGDS LF	**Monitoring Point:**	P07D
Project Location:	Springfield, IL	**Sample ID:**	012
W.O. Number (s):	25020750	**Date (s):**	2/20/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 7 °F Wind Direction: ☐ N ☑ S ☐ E ☐ EW ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/20/2025 10:31

Static Water Level: 4.49 feet below TOC

Total Depth: 32.54 feet below TOC

Water Column: 28.05 feet

Purging Activities

Purged By: JC Purge Date: 2/20/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 28.05 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: ltbrown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:34	0.0	184	purge start time						
11:00	4.8	↓	6.77	1,251.80	8.06	1.22	-106.10	63.75	
11:03	5.3		6.78	1,248.00	7.78	1.21	-109.50	55.28	
11:06	5.9		6.77	1,250.70	7.60	1.08	-111.70	46.90	
11:09	6.4		6.77	1,251.50	8.27	1.01	-113.80	40.37	
11:12	7.0		6.78	1,252.30	8.21	0.99	-115.20	40.04	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/20/2025 11:12

Sample Method: Low Flow Sample Equipment: Bladder Pump

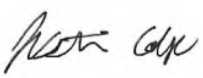
Sample Parameters: 7.10 pH 622.80 Spec. Cond. 11.96 Temp

Field Filtered: No Filter Type:

Water Level: 4.55 feet below TOC Drawdown: 0.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 50115

Form Completed By:  **Date:** 2/20/2025

Site Samping Event: FGDS Landfill
LIMS Workorder: 25020750
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 1Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 50115 Technician(s): justin colp Date: 2/18/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230619c	4.00	2/18/25 9:30
7.0 Buffer	wc240913b	7.00	2/18/25 9:26
10.0 Buffer	wc240625b	10.00	2/18/25 9:34
LCS/CCV (7.0 Buffer)	wc240913c		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/18/25 9:42

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.5	2/18/25 9:42
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	2/18/25 9:44	17.5	7.02	1,410	0.51		
CCV-1-JC	CCV	2/18/25 13:20	18.5	7.06	1,423	0.57		

Comments:

Field Meter ID: Pine 50115 Technician(s): justn colp Date: 2/19/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230619c	4.00	2/19/25 10:31
7.0 Buffer	wc240913b	7.00	2/19/25 10:28
10.0 Buffer	wc240625b	10.00	2/19/25 10:36
LCS/CCV (7.0 Buffer)	wc240913c		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/19/25 10:47

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.49	2/19/25 10:53
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	2/19/25 10:55	9.1	7.01	1,411	0.47		
CCV-2-JC	CCV	2/19/25 14:29	11.1	7.03	1,417	0.56		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 25020750
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 1Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 50115 Technician(s): justin colp Date: 2/20/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230619c	4.00	2/20/25 8:56
7.0 Buffer	wc240913b	7.00	2/20/25 8:51
10.0 Buffer	wc240625b	10.00	2/20/25 9:00
LCS/CCV (7.0 Buffer)	wc240913c		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/20/25 9:06

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.5	2/20/25 9:06
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-JC	LCS	2/20/25 9:08	9.3	6.99	1,415	0.5		
CCV-3-JC	CCV	2/20/25 13:42	10.4	7.02	1,426	0.54		

Comments:

Field Meter ID: Pine 50115 Technician(s): justin colp Date: 2/21/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc230619c	4.00	2/21/25 8:41
7.0 Buffer	wc240913b	7.00	2/21/25 8:37
10.0 Buffer	wc240625b	10.00	2/21/25 8:45
LCS/CCV (7.0 Buffer)	wc240913c		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/21/25 8:53

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.6	2/21/25 8:53
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4-JC	LCS	2/21/25 8:55	9.4	7.02	1,413	0.62		
CCV-4-JC	CCV	2/21/25 10:30	9.7	7.02	1,418	0.61		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 25020750
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 1Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210756 Technician(s): Tracy Carroll Date: 2/19/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230619C	4.01	2/19/25 11:14
7.0 Buffer	WC240913B	7.00	2/19/25 11:11
10.0 Buffer	WC240625B	10.00	2/19/25 11:19
LCS/CCV (7.0 Buffer)	WC240913C		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/19/25 11:05

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-TC	LCS	2/19/25 11:21	0.3	7.06	1,413			
CCV-1-TC	CCV	2/19/25 14:27	13.7	7.08	1,321			

Comments:

Field Meter ID: Pine 210756 Technician(s): Tracy Carroll Date: 2/20/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230619C	4.00	2/20/25 9:55
7.0 Buffer	WC240913B	7.00	2/20/25 9:49
10.0 Buffer	WC240625B	10.00	2/20/25 10:12
LCS/CCV (7.0 Buffer)	WC240913C		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/20/25 10:13

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-TC	LCS	2/20/25 10:25	0.6	7.09	1,417			
CCV-2-TC	CCV	2/20/25 14:35	0.8	7.09	1,423			

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 25020750
Technician(s): DC, JC, TC, BG, PY

Field Calibration Log(s)
CWLP- 1Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210756 Technician(s): Tracy Carroll Date: 2/21/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC230619C	4.01	2/21/25 9:29
7.0 Buffer	WC240913B	7.00	2/21/25 9:21
10.0 Buffer	WC240625B	10.00	2/21/25 9:33
LCS/CCV (7.0 Buffer)	WC240913C		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	102040	1412	2/21/25 9:41

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1		
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-TC	LCS	2/21/25 9:44	0.2	7.05	1,415			
CCV-3-TC	CCV	2/21/25 10:46	0.2	7.06	1,404			

Comments:

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

March 31, 2025

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 25020750

Order No.: 25030052

Dear Shelly Hennessy:

Alliance Technical Group - Akron received 12 sample(s) on 2/27/2025 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **25030052**
Date: **3/31/2025**

CLIENT: TEKLAB Inc,
Project: 25020750

WorkOrder Narrative:
25030052: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence QC Notes:
LCS/LCSD-82663 Radium-228_DW(904.0): LCS/LCSD exhibited a high RPD, individually each LCS/LCSD meets the required criteria.

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Qualifiers and Acronyms

WO#: **25030052**
Date: **3/31/2025**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Website: http://www.settek.com

Workorder Sample Summary

WO#: **25030052**

31-Mar-25

CLIENT: TEKLAB Inc,
Project: 25020750

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
25030052-001	25020750-001		2/21/2025 10:20:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-002	25020750-002		2/19/2025 1:25:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-003	25020750-003		2/20/2025 11:41:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-004	25020750-004		2/20/2025 12:55:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-005	25020750-005		2/21/2025 9:42:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-006	25020750-006		2/21/2025 9:36:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-007	25020750-007		2/20/2025 1:25:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-008	25020750-008		2/20/2025 1:39:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-009	25020750-009		2/20/2025 12:21:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-010	25020750-010		2/20/2025 10:18:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-011	25020750-011		2/18/2025 12:00:00 PM	2/27/2025 11:30:00 AM	Non-Potable Water
25030052-012	25020750-012		2/20/2025 11:12:00 AM	2/27/2025 11:30:00 AM	Non-Potable Water

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Website: http://www.settek.com

DATES REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
25030052-001A	25020750-001	2/21/2025 10:20:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		3/5/2025 10:47:15 AM	3/26/2025 9:39:00 AM
				Radium-228 (EPA 904.0)		3/5/2025 10:47:15 AM	3/25/2025 2:10:00 PM
25030052-002A	25020750-002	2/19/2025 1:25:00 PM		Radium-226 (EPA 903.0)		3/5/2025 10:47:15 AM	3/26/2025 9:39:00 AM
				Radium-228 (EPA 904.0)		3/5/2025 10:47:15 AM	3/25/2025 2:10:00 PM
25030052-003A	25020750-003	2/20/2025 11:41:00 AM		Radium-226 (EPA 903.0)		3/5/2025 10:47:15 AM	3/26/2025 9:39:00 AM
				Radium-228 (EPA 904.0)		3/5/2025 10:47:15 AM	3/25/2025 2:10:00 PM
25030052-004A	25020750-004	2/20/2025 12:55:00 PM		Radium-226 (EPA 903.0)		3/8/2025 1:30:00 PM	3/23/2025 1:04:00 PM
				Radium-228 (EPA 904.0)		3/8/2025 1:30:00 PM	3/21/2025 2:04:00 PM
25030052-005A	25020750-005	2/21/2025 9:42:00 AM		Radium-226 (EPA 903.0)		3/8/2025 1:30:00 PM	3/23/2025 1:04:00 PM
				Radium-228 (EPA 904.0)		3/8/2025 1:30:00 PM	3/21/2025 2:04:00 PM
25030052-006A	25020750-006	2/21/2025 9:36:00 AM		Radium-226 (EPA 903.0)		3/8/2025 1:30:00 PM	3/23/2025 1:04:00 PM
				Radium-228 (EPA 904.0)		3/8/2025 1:30:00 PM	3/21/2025 2:04:00 PM
25030052-007A	25020750-007	2/20/2025 1:25:00 PM		Radium-226 (EPA 903.0)		3/8/2025 1:30:00 PM	3/23/2025 1:04:00 PM
				Radium-228 (EPA 904.0)		3/8/2025 1:30:00 PM	3/21/2025 2:04:00 PM
25030052-008A	25020750-008	2/20/2025 1:39:00 PM		Radium-226 (EPA 903.0)		3/8/2025 1:30:00 PM	3/23/2025 1:04:00 PM
				Radium-228 (EPA 904.0)		3/8/2025 1:30:00 PM	3/21/2025 2:04:00 PM
25030052-009A	25020750-009	2/20/2025 12:21:00 PM		Radium-226 (EPA 903.0)		3/8/2025 1:30:00 PM	3/23/2025 1:04:00 PM
				Radium-228 (EPA 904.0)		3/8/2025 1:30:00 PM	3/21/2025 2:04:00 PM
25030052-010A	25020750-010	2/20/2025 10:18:00 AM		Radium-226 (EPA 903.0)		3/8/2025 1:30:00 PM	3/23/2025 1:04:00 PM
				Radium-228 (EPA 904.0)		3/8/2025 1:30:00 PM	3/21/2025 2:04:00 PM
25030052-011A	25020750-011	2/18/2025 12:00:00 PM		Radium-226 (EPA 903.0)		3/4/2025 11:20:02 AM	3/27/2025 10:25:00 AM
				Radium-228 (EPA 904.0)		3/4/2025 11:20:02 AM	3/26/2025 3:34:00 PM
25030052-012A	25020750-012	2/20/2025 11:12:00 AM		Radium-226 (EPA 903.0)		3/8/2025 1:30:00 PM	3/23/2025 1:04:00 PM

Original

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DATES REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,

Project: 25020750

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
25030052-012A	25020750-012	2/20/2025 11:12:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		3/8/2025 1:30:00 PM	3/21/2025 2:04:00 PM

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Analytical Report

(consolidated)

WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Project: 25020750
Lab ID: 25030052-001
Client Sample ID: 25020750-001

Collection Date: 2/21/2025 10:20:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.100	1	3/26/2025 9:39:00 AM
Yield	1.00					1	3/26/2025 9:39:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.380	1	3/25/2025 2:10:00 PM
Yield	1.00					1	3/25/2025 2:10:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/19/2025 1:25:00 PM
Project: 25020750
Lab ID: 25030052-002
Matrix: NON-POTABLE WATER
Client Sample ID: 25020750-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.160	1	3/26/2025 9:39:00 AM
Yield	1.00					1	3/26/2025 9:39:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.380	1	3/25/2025 2:10:00 PM
Yield	1.00					1	3/25/2025 2:10:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Project: 25020750
Lab ID: 25030052-003
Client Sample ID: 25020750-003

Collection Date: 2/20/2025 11:41:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.210	1	3/26/2025 9:39:00 AM
Yield	1.00					1	3/26/2025 9:39:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.530	1	3/25/2025 2:10:00 PM
Yield	1.00					1	3/25/2025 2:10:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Project: 25020750
Lab ID: 25030052-004
Client Sample ID: 25020750-004

Collection Date: 2/20/2025 12:55:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.180	1	3/23/2025 1:04:00 PM
Yield	1.00					1	3/23/2025 1:04:00 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.350	1	3/21/2025 2:04:00 PM
Yield	1.00					1	3/21/2025 2:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/21/2025 9:42:00 AM
Project: 25020750
Lab ID: 25030052-005
Matrix: NON-POTABLE WATER
Client Sample ID: 25020750-005

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.160	1	3/23/2025 1:04:00 PM
Yield	0.990					1	3/23/2025 1:04:00 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.460	1	3/21/2025 2:04:00 PM
Yield	0.920					1	3/21/2025 2:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

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WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/21/2025 9:36:00 AM
Project: 25020750
Lab ID: 25030052-006
Matrix: NON-POTABLE WATER
Client Sample ID: 25020750-006

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	2.75	1.00		pCi/L	± 0.360	1	3/23/2025 1:04:00 PM
Yield	1.00					1	3/23/2025 1:04:00 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.470	1	3/21/2025 2:04:00 PM
Yield	1.00					1	3/21/2025 2:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Project: 25020750
Lab ID: 25030052-007
Client Sample ID: 25020750-007

Collection Date: 2/20/2025 1:25:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	1.97	1.00		pCi/L	± 0.300	1	3/23/2025 1:04:00 PM
Yield	1.00					1	3/23/2025 1:04:00 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.460	1	3/21/2025 2:04:00 PM
Yield	1.00					1	3/21/2025 2:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Project: 25020750
Lab ID: 25030052-008
Client Sample ID: 25020750-008

Collection Date: 2/20/2025 1:39:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	3/23/2025 1:04:00 PM
Yield	1.00					1	3/23/2025 1:04:00 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.280	1	3/21/2025 2:04:00 PM
Yield	1.00					1	3/21/2025 2:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Project: 25020750
Lab ID: 25030052-009
Client Sample ID: 25020750-009

Collection Date: 2/20/2025 12:21:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.200	1	3/23/2025 1:04:00 PM
Yield	1.00					1	3/23/2025 1:04:00 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.500	1	3/21/2025 2:04:00 PM
Yield	1.00					1	3/21/2025 2:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Project: 25020750
Lab ID: 25030052-010
Client Sample ID: 25020750-010

Collection Date: 2/20/2025 10:18:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.00		pCi/L	± 0.110	1	3/23/2025 1:04:00 PM
Yield	1.00					1	3/23/2025 1:04:00 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.00		pCi/L	± 0.290	1	3/21/2025 2:04:00 PM
Yield	1.00					1	3/21/2025 2:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Project: 25020750
Lab ID: 25030052-011
Client Sample ID: 25020750-011

Collection Date: 2/18/2025 12:00:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	1.30		pCi/L	± 0.110	1	3/27/2025 10:25:00 AM
Yield	1.00					1	3/27/2025 10:25:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	ND	1.30		pCi/L	± 0.440	1	3/26/2025 3:34:00 PM
Yield	0.780					1	3/26/2025 3:34:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25030052**

Date Reported: **3/31/2025**

CLIENT: TEKLAB Inc,
Collection Date: 2/20/2025 11:12:00 AM
Project: 25020750
Lab ID: 25030052-012
Matrix: NON-POTABLE WATER
Client Sample ID: 25020750-012

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	1.17	1.00		pCi/L	± 0.240	1	3/23/2025 1:04:00 PM
Yield	1.00					1	3/23/2025 1:04:00 PM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	1.32	1.00		pCi/L	± 0.500	1	3/21/2025 2:04:00 PM
Yield	1.00					1	3/21/2025 2:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82663**

Sample ID: **MB-82663**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/4/2025**	RunNo: **205809**
Client ID: **BatchQC**	Batch ID: **82663**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5509486**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-82663**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/4/2025**	RunNo: **205809**
Client ID: **BatchQC**	Batch ID: **82663**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5509487**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	6.47	1.00	5.000	0	129	50	130				QLR
Yield	0.580			0	0						

Sample ID: **LCSD-82663**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/4/2025**	RunNo: **205809**
Client ID: **BatchQC**	Batch ID: **82663**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5509488**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.45	1.00	5.000	0	89.0	50	130	6.470	37.0	20	R
Yield	1.00			0	0			0.5800	53.2		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82663**

Sample ID: **25021873-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205809**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E904.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5509493**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **25021875-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205809**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E904.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5509495**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			1.260	200	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82663**

Sample ID: **MB-82663** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205811**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E903.0** **E903-904** Analysis Date: **3/27/2025** SeqNo: **5509528**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-82663** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205811**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E903.0** **E903-904** Analysis Date: **3/27/2025** SeqNo: **5509529**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	3.65	1.00	5.000	0	73.0	70	130				QLR

Sample ID: **LCSD-82663** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205811**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E903.0** **E903-904** Analysis Date: **3/27/2025** SeqNo: **5509530**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.97	1.00	5.000	0	99.4	70	130	3.650	30.6	20	R

Sample ID: **25021873-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205811**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E903.0** **E903-904** Analysis Date: **3/27/2025** SeqNo: **5509535**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82663**

Sample ID: **25021873-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205811**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E903.0** **E903-904** Analysis Date: **3/27/2025** SeqNo: **5509535**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **25021875-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/4/2025** RunNo: **205811**
Client ID: **BatchQC** Batch ID: **82663** TestNo: **E903.0** **E903-904** Analysis Date: **3/27/2025** SeqNo: **5509537**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82683**

Sample ID: **MB-82683** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205677**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E904.0** **E903-904** Analysis Date: **3/25/2025** SeqNo: **5506861**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-82683** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205677**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E904.0** **E903-904** Analysis Date: **3/25/2025** SeqNo: **5506862**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.54	1.00	5.000	0	70.8	50	130				
Yield	0.900			0	0						

Sample ID: **LCSD-82683** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205677**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E904.0** **E903-904** Analysis Date: **3/25/2025** SeqNo: **5506863**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.35	1.00	5.000	0	67.0	50	130	3.540	5.52	20	
Yield	1.00			0	0			0.9000	10.5		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82683**

Sample ID: **25030002-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205677**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E904.0** **E903-904** Analysis Date: **3/25/2025** SeqNo: **5506868**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **25030004-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205677**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E904.0** **E903-904** Analysis Date: **3/25/2025** SeqNo: **5506870**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82683**

Sample ID: **MB-82683**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2025**	RunNo: **205680**
Client ID: **BatchQC**	Batch ID: **82683**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5506940**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-82683**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2025**	RunNo: **205680**
Client ID: **BatchQC**	Batch ID: **82683**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5506941**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.48	1.00	5.000	0	89.6	70	130				

Sample ID: **LCSD-82683**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2025**	RunNo: **205680**
Client ID: **BatchQC**	Batch ID: **82683**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5506942**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.61	1.00	5.000	0	92.2	70	130	4.480	2.86	20	

Sample ID: **25030002-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/5/2025**	RunNo: **205680**
Client ID: **BatchQC**	Batch ID: **82683**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/26/2025**	SeqNo: **5506947**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82683**

Sample ID: **25030002-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205680**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E903.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5506947**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **25030004-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/5/2025** RunNo: **205680**
Client ID: **BatchQC** Batch ID: **82683** TestNo: **E903.0** **E903-904** Analysis Date: **3/26/2025** SeqNo: **5506949**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82776**

Sample ID: **MB-82776**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/8/2025**	RunNo: **205482**
Client ID: **BatchQC**	Batch ID: **82776**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/21/2025**	SeqNo: **5502453**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-82776**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/8/2025**	RunNo: **205482**
Client ID: **BatchQC**	Batch ID: **82776**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/21/2025**	SeqNo: **5502454**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.46	1.00	5.000	0	69.2	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-82776**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/8/2025**	RunNo: **205482**
Client ID: **BatchQC**	Batch ID: **82776**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/21/2025**	SeqNo: **5502455**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.00	1.00	5.000	0	80.0	50	130	3.460	14.5	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82776**

Sample ID: **25030057-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/8/2025** RunNo: **205482**
Client ID: **BatchQC** Batch ID: **82776** TestNo: **E904.0** **E903-904** Analysis Date: **3/21/2025** SeqNo: **5502474**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Sample ID: **25030059-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/8/2025** RunNo: **205482**
Client ID: **BatchQC** Batch ID: **82776** TestNo: **E904.0** **E903-904** Analysis Date: **3/21/2025** SeqNo: **5502476**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82776**

Sample ID: **MB-82776**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/8/2025**	RunNo: **205492**
Client ID: **BatchQC**	Batch ID: **82776**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/23/2025**	SeqNo: **5502642**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-82776**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/8/2025**	RunNo: **205492**
Client ID: **BatchQC**	Batch ID: **82776**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/23/2025**	SeqNo: **5502643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.72	1.00	5.000	0	94.4	70	130				

Sample ID: **LCSD-82776**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/8/2025**	RunNo: **205492**
Client ID: **BatchQC**	Batch ID: **82776**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/23/2025**	SeqNo: **5502644**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.29	1.00	5.000	0	106	70	130	4.720	11.4	20	

Sample ID: **25030057-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **3/8/2025**	RunNo: **205492**
Client ID: **BatchQC**	Batch ID: **82776**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/23/2025**	SeqNo: **5502658**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **25030052**

31-Mar-25

Client: TEKLAB Inc,
Project: 25020750 **BatchID:** **82776**

Sample ID: **25030057-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/8/2025** RunNo: **205492**
Client ID: **BatchQC** Batch ID: **82776** TestNo: **E903.0** **E903-904** Analysis Date: **3/23/2025** SeqNo: **5502658**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	R
Yield	1.00							1.000	0	0	

Sample ID: **25030059-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **3/8/2025** RunNo: **205492**
Client ID: **BatchQC** Batch ID: **82776** TestNo: **E903.0** **E903-904** Analysis Date: **3/23/2025** SeqNo: **5502660**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Pg ___ of ___

TEKLAB, INC. Chain of Custody

25030052

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Client | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Project# 25020750

Contact: Shelly Hennessy | Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT | Billing/PO: 38001 | Phone: (618) 344-1004 ext. 36

Report data from 25020749-001

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228				
	25020750-001	2/21/25 1020	HNO3	Groundwater	✔	pH	1	CPM	28
	25020750-002	2/19/25 1325	HNO3	Groundwater	✔		1		23
	25020750-003	2/20/25 1141	HNO3	Groundwater	✔		1		52
	25020750-004	2/20/25 1255	HNO3	Groundwater	✔		1		46
	25020750-005	2/21/25 0942	HNO3	Groundwater	✔		1		30
	25020750-006	2/21/25 ~~935~~ 0936	HNO3	Groundwater	✔		1		33
	25020750-007	2/20/25 1325	HNO3	Groundwater	✔		1		38
	25020750-008	2/20/25 1339	HNO3	Groundwater	✔		1		22
	25020750-009	2/20/25 1221	HNO3	Groundwater	✔		1		28
	25020750-010	2/20/25 1018	HNO3	Groundwater	✔		1		30
	25020750-011	2/18/25 1200	HNO3	Groundwater	✔				

18.8-0.6 = 18.8 CS intact 02/25 - Fedex Box/cooler

*Relinquished By	Date/Time	Received By	Date/Time
[signature]		[signature]	02/27/25 1130

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sample information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: Client QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Project# 25020750

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 38001 Phone: (618) 344-1004 ext.

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228											
	25020750-012	2/20/25 1112	HNO3	Groundwater	✔	pH 1		CPM 152								
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												

18.8-0.9=18.8, CS intact 02/25 - Fedex Box/cooler

*Relinquished By	Date/Time	Received By	Date/Time
Jmer Wells			02/27/25 1130

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Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 25030052 RcptNo: 1

Logged by:	Anthony W. Britton	2/27/2025 11:30:00 AM	Anthony Britton
Completed By:	Tegan A. Richards	3/1/2025 6:16:55 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	3/3/2025 11:03:50 AM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐
   No. Seal Date: 2/25/2025 Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:
    Relinquish time & dare not included

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	18.8	Good	Yes		2/25/2025	

Second Quarter 2025

June 23, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10438
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Landfill Monitoring Wells **WorkOrder:** 25051157

Dear Eric Staley:

TEKLAB, INC received 12 samples on 5/27/2025 3:35:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 25051157
Report Date: 23-Jun-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	31
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 25051157

Client Project: Landfill Monitoring Wells **Report Date:** 23-Jun-25

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 25051157

Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 25051157
Report Date: 23-Jun-25

Cooler Receipt Temp: 5.9 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2026	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2025	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25
Lab ID: 25051157-001
Client Sample ID: R101
Matrix: GROUNDWATER
Collection Date: 05/27/2025 10:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**3150**	µg/L	1	05/29/2025 13:32	239684
Barium	NELAP	2.5		**232**	µg/L	1	05/29/2025 13:32	239684
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/29/2025 13:32	239684
Boron	NELAP	20.0		**129**	µg/L	1	05/29/2025 13:32	239684
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/29/2025 13:32	239684
Calcium	NELAP	0.100		**175**	mg/L	1	05/29/2025 13:32	239684
Chromium	NELAP	5.0		**5.4**	µg/L	1	05/29/2025 13:32	239684
Cobalt	NELAP	5.0		**8.8**	µg/L	1	05/29/2025 13:32	239684
Copper	NELAP	5.0		**10.0**	µg/L	1	05/29/2025 13:32	239684
Iron	NELAP	40.0		**6860**	µg/L	1	05/29/2025 13:32	239684
Magnesium	NELAP	0.050		**69.6**	mg/L	1	05/29/2025 13:32	239684
Manganese	NELAP	7.0		**11900**	µg/L	1	05/29/2025 13:32	239684
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 13:32	239684
Potassium	NELAP	0.100		**1.32**	mg/L	1	05/29/2025 13:32	239684
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 13:32	239684
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 13:32	239684
Sodium	NELAP	0.050		**30.1**	mg/L	1	05/29/2025 13:32	239684
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 13:32	239684
Zinc	NELAP	10.0		**20.5**	µg/L	1	05/29/2025 13:32	239684
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/30/2025 10:06	239733
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/30/2025 10:06	239733
LCS recovered outside upper control limits for As. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 15:01	239684
Arsenic	NELAP	1.0		**2.1**	µg/L	5	05/28/2025 15:01	239684
Lead	NELAP	1.0		**4.3**	µg/L	5	05/28/2025 15:01	239684
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/28/2025 15:01	239684
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/29/2025 15:21	239734
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/29/2025 15:19	239734

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25
Lab ID: 25051157-002
Client Sample ID: G110
Matrix: GROUNDWATER
Collection Date: 05/21/2025 11:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0	B	**< 25.0**	µg/L	1	05/29/2025 8:27	239494
Barium	NELAP	2.5		**179**	µg/L	1	05/29/2025 8:27	239494
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/29/2025 8:27	239494
Boron	NELAP	20.0		**97.9**	µg/L	1	05/29/2025 8:27	239494
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/29/2025 8:27	239494
Calcium	NELAP	0.100	B	**101**	mg/L	1	05/29/2025 8:27	239494
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:27	239494
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:27	239494
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:27	239494
Iron	NELAP	40.0	B	**5720**	µg/L	1	05/29/2025 8:27	239494
Magnesium	NELAP	0.050	B	**43.3**	mg/L	1	05/30/2025 8:26	239494
Manganese	NELAP	7.0		**73.9**	µg/L	1	05/29/2025 8:27	239494
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:27	239494
Potassium	NELAP	0.100		**1.58**	mg/L	1	05/29/2025 8:27	239494
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 8:27	239494
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 8:27	239494
Sodium	NELAP	0.050	B	**13.8**	mg/L	1	05/29/2025 8:27	239494
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 8:27	239494
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 8:27	239494

Sample results for Ca, Mg and Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.
Sample result for Fe exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.
Contamination present in the MBLK for Al. Sample results below the reporting limit are reportable per the TNI Standard.

SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**4.7**	µg/L	5	05/23/2025 10:41	239534
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/23/2025 10:41	239534
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 17:57	239494
Arsenic	NELAP	1.0		**4.7**	µg/L	5	05/27/2025 20:18	239494
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 17:57	239494
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/28/2025 17:57	239494
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2025 16:56	239492
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2025 16:54	239492

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25
Lab ID: 25051157-003
Client Sample ID: R111
Matrix: GROUNDWATER
Collection Date: 05/21/2025 12:22

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**696**	µg/L	1	05/29/2025 8:27	239494
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/29/2025 8:27	239494
Boron	NELAP	20.0		**3980**	µg/L	1	05/29/2025 8:27	239494
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/29/2025 8:27	239494
Calcium	NELAP	0.100	B	**166**	mg/L	1	05/29/2025 8:27	239494
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:27	239494
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:27	239494
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:27	239494
Iron	NELAP	40.0	B	**12300**	µg/L	1	05/29/2025 8:27	239494
Magnesium	NELAP	0.050	B	**72.5**	mg/L	1	05/30/2025 8:26	239494
Manganese	NELAP	7.0		**112**	µg/L	1	05/29/2025 8:27	239494
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:27	239494
Potassium	NELAP	0.100		**1.94**	mg/L	1	05/29/2025 8:27	239494
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 8:27	239494
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 8:27	239494
Sodium	NELAP	0.050	B	**36.9**	mg/L	1	05/29/2025 8:27	239494
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 8:27	239494
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 8:27	239494
Sample results for Ca, Mg and Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
Sample result for Fe exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**16.1**	µg/L	5	05/23/2025 10:47	239534
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/23/2025 10:47	239534
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 18:04	239494
Arsenic	NELAP	1.0		**21.5**	µg/L	5	05/27/2025 20:24	239494
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 18:04	239494
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/28/2025 18:04	239494
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2025 17:01	239492
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2025 16:58	239492

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25
Lab ID: 25051157-004
Client Sample ID: G112
Matrix: GROUNDWATER
Collection Date: 05/27/2025 12:41

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**75.1**	µg/L	1	05/29/2025 13:33	239684
Barium	NELAP	2.5		**421**	µg/L	1	05/29/2025 13:33	239684
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/29/2025 13:33	239684
Boron	NELAP	20.0		**500**	µg/L	1	05/29/2025 13:33	239684
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/29/2025 13:33	239684
Calcium	NELAP	0.100		**245**	mg/L	1	05/29/2025 13:33	239684
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 13:33	239684
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 13:33	239684
Copper	NELAP	5.0		**14.0**	µg/L	1	05/29/2025 13:33	239684
Iron	NELAP	40.0		**2730**	µg/L	1	05/29/2025 13:33	239684
Magnesium	NELAP	0.050		**73.8**	mg/L	1	05/29/2025 13:33	239684
Manganese	NELAP	7.0		**254**	µg/L	1	05/29/2025 13:33	239684
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 13:33	239684
Potassium	NELAP	0.100		**2.64**	mg/L	1	05/29/2025 13:33	239684
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 13:33	239684
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 13:33	239684
Sodium	NELAP	0.050		**31.7**	mg/L	1	05/29/2025 13:33	239684
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 13:33	239684
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 13:33	239684
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/30/2025 10:12	239733
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/30/2025 10:12	239733
LCS recovered outside upper control limits for As. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**1.2**	µg/L	5	05/28/2025 15:07	239684
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 15:07	239684
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 15:07	239684
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/28/2025 15:07	239684
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/29/2025 15:30	239734
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/29/2025 15:28	239734

Client: City Water, Light & Power **Work Order:** 25051157

Client Project: Landfill Monitoring Wells **Report Date:** 23-Jun-25

Lab ID: 25051157-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 05/27/2025 11:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**45.8**	µg/L	1	05/29/2025 13:59	239684
Barium	NELAP	2.5		**338**	µg/L	1	05/29/2025 13:59	239684
Beryllium	NELAP	0.5		**0.9**	µg/L	1	05/29/2025 13:59	239684
Boron	NELAP	20.0		**1170**	µg/L	1	05/29/2025 13:59	239684
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/29/2025 13:59	239684
Calcium	NELAP	0.100		**350**	mg/L	1	05/29/2025 13:59	239684
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 13:59	239684
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 13:59	239684
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 13:59	239684
Iron	NELAP	40.0		**328**	µg/L	1	05/29/2025 13:59	239684
Magnesium	NELAP	0.050		**84.7**	mg/L	1	05/29/2025 13:59	239684
Manganese	NELAP	7.0		**12000**	µg/L	1	05/29/2025 13:59	239684
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 13:59	239684
Potassium	NELAP	0.100		**3.61**	mg/L	1	05/29/2025 13:59	239684
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 13:59	239684
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 13:59	239684
Sodium	NELAP	0.050		**24.0**	mg/L	1	05/29/2025 13:59	239684
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 13:59	239684
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 13:59	239684
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/30/2025 10:18	239733
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/30/2025 10:18	239733
LCS recovered outside upper control limits for As. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 15:13	239684
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 15:13	239684
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 15:13	239684
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/28/2025 15:13	239684
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/29/2025 15:34	239734
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/29/2025 15:32	239734

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25
Lab ID: 25051157-006
Client Sample ID: G120
Matrix: GROUNDWATER
Collection Date: 05/21/2025 13:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**2330**	µg/L	1	05/29/2025 8:28	239494
Beryllium	NELAP	0.5		**0.5**	µg/L	1	05/29/2025 8:28	239494
Boron	NELAP	20.0		**7620**	µg/L	1	05/29/2025 8:28	239494
Cadmium	NELAP	2.0		**2.1**	µg/L	1	05/29/2025 8:28	239494
Calcium	NELAP	0.100	BS	**258**	mg/L	1	05/29/2025 8:28	239494
Chromium	NELAP	5.0		**10.7**	µg/L	1	05/29/2025 8:28	239494
Cobalt	NELAP	5.0		**7.5**	µg/L	1	05/29/2025 8:28	239494
Copper	NELAP	5.0		**35.1**	µg/L	1	05/29/2025 8:28	239494
Iron	NELAP	40.0	B	**68000**	µg/L	1	05/29/2025 8:28	239494
Magnesium	NELAP	0.050	BS	**109**	mg/L	1	05/30/2025 8:27	239494
Manganese	NELAP	7.0		**548**	µg/L	1	05/29/2025 8:28	239494
Nickel	NELAP	5.0		**11.1**	µg/L	1	05/29/2025 8:28	239494
Potassium	NELAP	0.100		**2.58**	mg/L	1	05/29/2025 8:28	239494
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 8:28	239494
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 8:28	239494
Sodium	NELAP	0.050	B	**42.2**	mg/L	1	05/29/2025 8:28	239494
Vanadium	NELAP	10.0		**16.2**	µg/L	1	05/29/2025 8:28	239494
Zinc	NELAP	10.0		**101**	µg/L	1	05/29/2025 8:28	239494

Sample results for Ca, Mg and Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.
Sample results for Al and Fe exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.
Matrix spike did not recover within control limits due to matrix interference. Verified by bench spike.

SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**7.7**	µg/L	5	05/23/2025 10:52	239534
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/23/2025 10:52	239534
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**1.8**	µg/L	5	05/28/2025 18:16	239494
Arsenic	NELAP	1.0		**17.4**	µg/L	5	05/27/2025 21:53	239494
Lead	NELAP	1.0		**8.2**	µg/L	5	05/28/2025 18:16	239494
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/28/2025 18:16	239494
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2025 17:15	239492
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2025 17:03	239492

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25
Lab ID: 25051157-007
Client Sample ID: G121
Matrix: GROUNDWATER
Collection Date: 05/22/2025 11:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**631**	µg/L	1	05/29/2025 14:14	239543
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/29/2025 14:14	239543
Boron	NELAP	20.0		**3950**	µg/L	1	05/29/2025 14:14	239543
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/29/2025 14:14	239543
Calcium	NELAP	0.100		**197**	mg/L	1	05/29/2025 14:14	239543
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:14	239543
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:14	239543
Copper	NELAP	5.0		**12.5**	µg/L	1	05/29/2025 14:14	239543
Iron	NELAP	40.0		**23200**	µg/L	1	05/29/2025 14:14	239543
Magnesium	NELAP	0.050		**87.3**	mg/L	1	05/29/2025 14:14	239543
Manganese	NELAP	7.0		**212**	µg/L	1	05/29/2025 14:14	239543
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:14	239543
Potassium	NELAP	0.100		**3.17**	mg/L	1	05/29/2025 14:14	239543
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 14:14	239543
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 14:14	239543
Sodium	NELAP	0.050		**42.2**	mg/L	1	05/29/2025 14:14	239543
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 14:14	239543
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 14:14	239543
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**14.1**	µg/L	5	05/27/2025 13:20	239569
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/27/2025 13:20	239569
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**1.0**	µg/L	5	05/27/2025 11:08	239543
Arsenic	NELAP	1.0		**15.0**	µg/L	5	05/27/2025 11:08	239543
Lead	NELAP	1.0		**2.3**	µg/L	5	05/23/2025 13:10	239543
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/23/2025 13:10	239543
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/23/2025 14:04	239545
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/23/2025 14:01	239545

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25
Lab ID: 25051157-008
Client Sample ID: G122
Matrix: GROUNDWATER
Collection Date: 05/22/2025 12:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**31.6**	µg/L	1	05/29/2025 14:15	239543
Barium	NELAP	2.5		**515**	µg/L	1	05/29/2025 14:15	239543
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/29/2025 14:15	239543
Boron	NELAP	20.0		**11700**	µg/L	1	05/29/2025 14:15	239543
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/29/2025 14:15	239543
Calcium	NELAP	0.100		**253**	mg/L	1	05/29/2025 14:15	239543
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:15	239543
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:15	239543
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:15	239543
Iron	NELAP	40.0		**33200**	µg/L	1	05/29/2025 14:15	239543
Magnesium	NELAP	0.050		**97.9**	mg/L	1	05/29/2025 14:15	239543
Manganese	NELAP	7.0		**1180**	µg/L	1	05/29/2025 14:15	239543
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:15	239543
Potassium	NELAP	0.100		**2.01**	mg/L	1	05/29/2025 14:15	239543
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 14:15	239543
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 14:15	239543
Sodium	NELAP	0.050		**39.6**	mg/L	1	05/29/2025 14:15	239543
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 14:15	239543
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 14:15	239543
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**3.1**	µg/L	5	05/27/2025 13:25	239569
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/27/2025 13:25	239569
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/27/2025 11:14	239543
Arsenic	NELAP	1.0		**2.7**	µg/L	5	05/27/2025 11:14	239543
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/23/2025 13:16	239543
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/23/2025 13:16	239543
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/23/2025 14:13	239545
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/23/2025 14:11	239545

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25
Lab ID: 25051157-009
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 05/22/2025 10:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**78.1**	µg/L	1	05/29/2025 14:15	239543
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/29/2025 14:15	239543
Boron	NELAP	20.0		**8790**	µg/L	1	05/29/2025 14:15	239543
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/29/2025 14:15	239543
Calcium	NELAP	0.100		**202**	mg/L	1	05/29/2025 14:15	239543
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:15	239543
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:15	239543
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:15	239543
Iron	NELAP	40.0		**254**	µg/L	1	05/29/2025 14:15	239543
Magnesium	NELAP	0.050		**88.5**	mg/L	1	05/29/2025 14:15	239543
Manganese	NELAP	7.0		**50.8**	µg/L	1	05/29/2025 14:15	239543
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:15	239543
Potassium	NELAP	0.100		**2.50**	mg/L	1	05/29/2025 14:15	239543
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 14:15	239543
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 14:15	239543
Sodium	NELAP	0.050		**33.0**	mg/L	1	05/29/2025 14:15	239543
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 14:15	239543
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 14:15	239543
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/27/2025 13:31	239569
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/27/2025 13:31	239569
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/27/2025 11:19	239543
Arsenic	NELAP	1.0		**1.5**	µg/L	5	05/27/2025 11:19	239543
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/23/2025 13:22	239543
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/23/2025 13:22	239543
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/23/2025 15:05	239545
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/23/2025 14:15	239545

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25
Lab ID: 25051157-010
Client Sample ID: AW-2
Matrix: GROUNDWATER
Collection Date: 05/22/2025 13:44

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**641**	µg/L	1	05/29/2025 14:16	239543
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/29/2025 14:16	239543
Boron	NELAP	20.0		**3160**	µg/L	1	05/29/2025 14:16	239543
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/29/2025 14:16	239543
Calcium	NELAP	0.100		**163**	mg/L	1	05/29/2025 14:16	239543
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:16	239543
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:16	239543
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:16	239543
Iron	NELAP	40.0		**18600**	µg/L	1	05/29/2025 14:16	239543
Magnesium	NELAP	0.050		**66.7**	mg/L	1	05/29/2025 14:16	239543
Manganese	NELAP	7.0		**234**	µg/L	1	05/29/2025 14:16	239543
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 14:16	239543
Potassium	NELAP	0.100		**2.36**	mg/L	1	05/29/2025 14:16	239543
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 14:16	239543
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 14:16	239543
Sodium	NELAP	0.050		**43.9**	mg/L	1	05/29/2025 14:16	239543
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 14:16	239543
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 14:16	239543
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**15.0**	µg/L	5	05/27/2025 13:36	239569
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/27/2025 13:36	239569
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/27/2025 11:25	239543
Arsenic	NELAP	1.0		**16.3**	µg/L	5	05/27/2025 11:25	239543
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/23/2025 13:29	239543
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/23/2025 13:29	239543
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/23/2025 14:27	239545
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/23/2025 14:25	239545

Client: City Water, Light & Power
Work Order: 25051157
Client Project: Landfill Monitoring Wells
Report Date: 23-Jun-25
Lab ID: 25051157-011
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 05/21/2025 10:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**43.6**	µg/L	1	06/03/2025 16:25	239883
Barium	NELAP	2.5		**149**	µg/L	1	05/29/2025 8:30	239494
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/29/2025 8:30	239494
Boron	NELAP	20.0		**167**	µg/L	1	05/29/2025 8:30	239494
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/29/2025 8:30	239494
Calcium	NELAP	0.100	B	**68.0**	mg/L	1	05/29/2025 8:30	239494
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:30	239494
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:30	239494
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:30	239494
Iron	NELAP	40.0	B	**3930**	µg/L	1	05/29/2025 8:30	239494
Magnesium	NELAP	0.050	B	**28.3**	mg/L	1	05/30/2025 8:18	239494
Manganese	NELAP	7.0		**90.9**	µg/L	1	05/29/2025 8:30	239494
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/29/2025 8:30	239494
Potassium	NELAP	0.100		**1.96**	mg/L	1	05/29/2025 8:30	239494
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/29/2025 8:30	239494
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/29/2025 8:30	239494
Sodium	NELAP	0.050	B	**51.7**	mg/L	1	05/29/2025 8:30	239494
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 8:30	239494
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/29/2025 8:30	239494
Sample results for Ca, Mg and Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
Sample result for Fe exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**67.8**	µg/L	5	05/27/2025 8:08	239534
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/27/2025 8:08	239534
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 18:10	239494
Arsenic	NELAP	1.0		**84.6**	µg/L	5	05/27/2025 20:29	239494
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/28/2025 18:10	239494
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/28/2025 18:10	239494
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2025 17:19	239492
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	05/22/2025 17:17	239492

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Landfill Monitoring Wells

Work Order: 25051157
Report Date: 23-Jun-25

Carrier: Daniel Crump
Received By: LEH

Completed by: Laura E Henson
On: 21-May-25

Reviewed by: Ellie Hopkins
On: 27-May-25

Pages to follow: Chain of custody 5 Extra pages included 15

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 5.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #101358/98858. - lhenson - 5/21/2025 5:13:57 PM

Cooler #2 = 5.3C, Cooler #3 = 8.3C (LTG#9). - LH 5/21/25

Samples were received on 5/22/25 at 15.45 on ice [temp 4.5C, 7.1C - LTG#9]. pH#101358/98858. - JD/lhenson - 5/22/2025 4:36:37 PM

Samples were received on 5/27/25 at 1535 on ice [13.1/16.3C - LTG#5]. Additional Sodium Hydroxide (102642) was needed upon arrival at the laboratory for G113. pH strip #98858/101358. R101 - date and time of collection per WO #25051159. - EK/amberdilallo - 5/27/2025 4:13:46 PM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25051157

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

5.3, 8.3

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 5.9 °C 9

Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY

LAB NOTES: HV 101358/98858

LH 5/21/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No

Are these samples known to be hazardous? [ ] Yes [✓] No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:

Quarter 2

*elevations, pH, conductivity, temperature

**As B Cd Cr Pb Mg Hg Zn

***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER

Landfill Monitoring Wells G1-G2

SAMPLE COLLECTOR'S NAME

Payton Tock

RESULTS REQUESTED

[ ] Standard [ ] 1-2 Day (100% Surcharge)

[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

	Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)
*	25051157 001	R101		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	002	G110	5/21/25 1123	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	003	R111	5/21/25 1222	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	004	G112		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	005	G113		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	006	G120	5/21/25 1358	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
*	007	G121		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
*	008	G122		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
*	009	AW-1		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
*	010	AW-2		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
*	011	RW-3	5-21-25 1020	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	5-21/1605		5/21/25 1605

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25051157

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
Quarter 2
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)				
25051157-012	Duplicate		Groundwater	2	2	1	4							✔	✔	✔	✔	✔	✔	✔	✔	✔				
			Groundwater																							
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Relinquished By	Date/Time	Received By	Date/Time
	5-21/1605		5/21/25 1605

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25051157

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

7.1

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 4.5 °C 9

Preserved in: [ ] LAB [x] FIELD FOR LAB USE ONLY

LAB NOTES: PH 101358 98858

JD 5/22/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No

Are these samples known to be hazardous? [ ] Yes [x] No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:

Quarter 2

*elevations, pH, conductivity, temperature

**As B Cd Cr Pb Mg Hg Zn

***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER

Landfill Monitoring Wells G1-G2

SAMPLE COLLECTOR'S NAME

Payton Tock

RESULTS REQUESTED

[ ] Standard [ ] 1-2 Day (100% Surcharge)

[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)
* 25051157 001	R101		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
002	G110		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
003	R111		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
004	G112		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
005	G113		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
006	G120		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
* 007	G121	5/22/25 1143	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
* 008	G122	5/22/25 1245	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
* 009	AW-1	5/22/25 1024	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
* 010	AW-2	5/22/25 1344	Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
* 011	RW-3		Groundwater	2	2	1	4						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	5-22/1545		5/22/25 1545

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25051157

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD
FOR LAB USE ONLY
LAB NOTES:

Client Comments:
Quarter 2
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)
25051157 012	Duplicate		Groundwater	2	2	1	4							✔	✔	✔	✔	✔	✔	✔	✔	✔
			Groundwater																			
			Groundwater																			
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Relinquished By	Date/Time	Received By	Date/Time
	5-22/1545		5/22/25 1545

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25051157

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 13.1/16.3°C 5
Preserved in: ☑ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: Date and time collected for sample R101 from 25051159 workorder. PHV 101358 : 98858

Client Comments: Added NaOH(102642) to G113. EK 5/27/25
Quarter 2
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)
* 25051157 001	R101	5-27-25 1046	Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
002	G110		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
003	R111		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
004	G112	5-27-25 1241	Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
005	G113	5-27-25 1140	Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
006	G120		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
007	G121		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
008	G122		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
009	AW-1		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
010	AW-2		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
011	RW-3		Groundwater	2	2	1	4						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
[signature]	5-27/1535	Emily Kossakowski	5/27/25 1535

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Field Data Sheet

Project Name: Landfill Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051157
Monitoring Point: R101
Sample ID: 001
Date (s): 5/27/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 62 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 10:17
Static Water Level: 6.88 feet below TOC
Total Depth: 35.27 feet below TOC
Water Column: 28.39 feet

Purging Activities

Purged By: JC — Purge Date: 5/27/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 28.39 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 7.00 L
Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:18	0.0	250	purge start time						
10:25	1.7	↓	6.96	1,328.90	12.73	5.18	88.40	11.76	
10:28	2.5		6.90	1,328.50	12.68	4.72	88.50	9.21	
10:31	3.2		6.86	1,329.10	12.65	4.39	88.30	6.05	
10:34	4.0		6.83	1,329.90	12.65	4.13	88.30	6.27	
10:37	4.8		6.82	1,329.90	12.66	3.93	88.00	6.82	
10:40	5.5		6.81	1,330.10	12.65	3.77	87.70	8.03	
10:43	6.3		6.80	1,329.60	12.66	3.64	87.40	9.04	
10:46	7.0		6.79	1,330.40	12.72	3.53	87.30	10.24	

Sampling Activities

Sampled By: JC — Sample Date/Time: 5/27/2025 10:46
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.79 pH — 1,330.40 Spec. Cond. — 12.72 Temp
Field Filtered: Yes — Filter Type: Inline Disposable
Water Level: 10.17 feet below TOC — Drawdown: 3.29 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Justin Colp — **Date:** 5/27/2025

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	G110
Project Location:	Springfield, IL	**Sample ID:**	002
W.O. Number (s):	25051157	**Date (s):**	5/21/2025

Field Team Members

Name: Payton Yoch — Affiliation: TekLab, Inc.

Name: Justin Colp — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 59 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 10:52

Static Water Level: 24.85 feet below TOC

Total Depth: 57.15 feet below TOC

Water Column: 32.30 feet

Purging Activities

Purged By: PY — Purge Date: 5/21/2025

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 32.3 ft. x 0.022 = 0.71 L x 3 Vol. = 2.13 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.00 L

Physical appearance of purge water: Clear — Odor: Slight — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:48	0.0	200	purge start time						
11:11	4.6	↓	6.59	876.00	15.45	2.90	69.70	2.60	
11:14	5.2		6.60	878.70	15.48	2.75	70.70	2.12	
11:17	5.8		6.61	879.50	15.51	2.63	71.60	1.41	
11:20	6.4		6.62	879.70	15.45	2.52	72.50	1.32	
11:23	7.0		6.62	883.00	15.07	2.47	73.30	1.64	

Sampling Activities

Sampled By: PY — Sample Date/Time: 5/21/2025 11:23

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

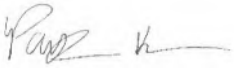
Sample Parameters: 6.62 pH — 883.00 Spec. Cond. — 15.07 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 25.12 feet below TOC — Drawdown: 0.27 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By:  **Date:** 5/21/2025

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	R111
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	25051157	**Date (s):**	5/21/2025

Field Team Members

Name: Payton Yoch Affiliation: TekLab, Inc.

Name: Justin Colp Affiliation: TekLab, Inc.

Weather Conditions

Temp: 59 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 11:44

Static Water Level: 25.19 feet below TOC

Total Depth: 55.75 feet below TOC

Water Column: 30.56 feet

Purging Activities

Purged By: PY Purge Date: 5/21/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.56 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: Moderate Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:44	0.0	132	purge start time						
12:10	3.4	↓	6.70	1,476.10	14.76	2.46	71.30	3.92	
12:13	3.8		6.70	1,480.10	14.74	2.38	68.30	3.20	
12:16	4.2		6.71	1,488.60	14.71	2.31	65.40	2.38	
12:19	4.6		6.71	1,494.20	15.06	2.25	62.20	2.21	
12:22	5.0		6.71	1,501.00	14.93	2.20	59.10	1.99	

Sampling Activities

Sampled By: PY Sample Date/Time: 5/21/2025 12:22

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

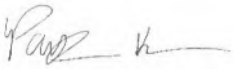
Sample Parameters: 6.71 pH 1,501.00 Spec. Cond. 14.93 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 25.31 feet below TOC Drawdown: 0.12 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By:  **Date:** 5/21/2025

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	G112
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	25051157	**Date (s):**	5/27/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 64 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 12:06

Static Water Level: 17.54 feet below TOC

Total Depth: 58.81 feet below TOC

Water Column: 41.27 feet

Purging Activities

Purged By: JC Purge Date: 5/27/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 41.27 ft. x 0.022 = 0.91 L x 3 Vol. = 2.73 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:09	0.0	156	purge start time						
12:17	1.3		7.16	1,716.00	16.24	5.54	80.60	25.02	
12:20	1.7		7.14	1,719.00	16.57	4.97	82.00	26.26	
12:23	2.2		7.13	1,721.50	16.61	4.57	83.30	24.02	
12:26	2.7		7.14	1,720.20	16.59	4.26	84.30	24.31	
12:29	3.1		7.14	1,718.50	16.51	4.01	85.50	23.17	
12:32	3.6		7.14	1,718.20	16.44	3.82	86.60	23.33	
12:35	4.1		7.14	1,721.30	16.38	3.68	87.50	22.37	
12:38	4.5		7.14	1,719.10	16.19	3.56	88.60	20.67	
12:41	5.0		7.14	1,716.40	16.10	3.44	89.60	19.46	

Sampling Activities

Sampled By: JC Sample Date/Time: 5/27/2025 12:41

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 7.14 pH 1,716.40 Spec. Cond. 16.10 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 29.09 feet below TOC Drawdown: 11.55 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Justin Colp **Date:** 5/27/2025

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	G113
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	25051157	**Date (s):**	5/27/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 63 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 11:16

Static Water Level: 5.80 feet below TOC

Total Depth: 12.85 feet below TOC

Water Column: 7.05 feet

Purging Activities

Purged By: JC — Purge Date: 5/27/2025

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 7.05 ft. x 0.022 = 0.16 L x 3 Vol. = 0.48 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:17	0.0	174	purge start time						
11:22	0.9	↓	6.46	2,094.20	14.00	6.89	74.00	6.83	
11:25	1.4		6.45	2,096.40	13.99	6.60	61.50	5.71	
11:28	1.9		6.45	2,096.60	13.99	6.42	54.40	5.08	
11:31	2.4		6.44	2,094.90	13.89	6.29	50.40	4.85	
11:34	3.0		6.44	2,095.10	13.87	6.23	47.00	4.69	
11:37	3.5		6.44	2,094.10	13.84	6.19	44.80	4.20	
11:40	4.0		6.44	2,093.00	13.78	6.16	43.30	4.29	

Sampling Activities

Sampled By: JC — Sample Date/Time: 5/27/2025 11:40

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.44 pH — 2,093.00 Spec. Cond. — 13.78 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 7.23 feet below TOC — Drawdown: 1.43 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Justin Colp — **Date:** 5/27/2025

Field Data Sheet

Project Name: Landfill Monitoring Wells
Monitoring Point: G120
Project Location: Springfield, IL
Sample ID: 006
W.O. Number (s): 25051157
Date (s): 5/21/2025

Field Team Members

Name: Payton Yoch Affiliation: TekLab, Inc.
Name: Justin Colp Affiliation: TekLab, Inc.

Weather Conditions

Temp: 61 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 13:34
Static Water Level: 16.18 feet below TOC
Total Depth: 50.37 feet below TOC
Water Column: 34.19 feet

Purging Activities

Purged By: PY Purge Date: 5/21/2025
Purge Method: Submersible Pump Well Diameter: 2"
Purge Volume Calculation (L): 34.19 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 7.00 L
Physical appearance of purge water: Slightly cloudy Odor: Slight Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:25	0.0	212	purge start time						
13:43	3.8	↓	6.59	1,943.40	15.75	3.59	77.90	15.49	
13:46	4.5		6.58	1,946.40	15.82	3.31	73.60	15.45	
13:49	5.1		6.58	1,947.80	15.70	3.11	68.80	20.89	
13:52	5.7		6.57	1,946.60	15.86	2.95	63.60	18.90	
13:55	6.4		6.57	1,949.50	15.88	2.82	58.10	13.31	
13:58	7.0		6.57	1,948.40	15.95	2.71	52.50	13.58	

Sampling Activities

Sampled By: PY Sample Date/Time: 5/21/2025 13:58
Sample Method: Low Flow Sample Equipment: Submersible Pump
Sample Parameters: 6.57 pH 1,948.40 Spec. Cond. 15.95 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 16.30 feet below TOC Drawdown: 0.12 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Date: 5/21/2025

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	G121
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	25051157	**Date (s):**	5/22/2025

Field Team Members

Name: Payton Yoch Affiliation: TekLab, Inc.

Name: Justin Colp Affiliation: TekLab, Inc.

Weather Conditions

Temp: 57 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 10:57

Static Water Level: 27.82 feet below TOC

Total Depth: 58.56 feet below TOC

Water Column: 30.74 feet

Purging Activities

Purged By: PY Purge Date: 5/22/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.74 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: Moderate Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:16	0.0	222	purge start time						
11:31	3.3	↓	6.81	1,556.30	14.05	4.51	87.60	43.15	
11:34	4.0		6.80	1,555.90	14.11	4.21	89.10	41.96	
11:37	4.7		6.79	1,555.10	14.17	3.96	90.20	31.18	
11:40	5.3		6.79	1,557.20	14.34	3.75	90.90	26.58	
11:43	6.0		6.79	1,555.80	14.37	3.60	91.20	21.79	

Sampling Activities

Sampled By: PY Sample Date/Time: 5/22/2025 11:43

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

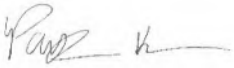
Sample Parameters: 6.79 pH 1,555.80 Spec. Cond. 14.37 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 28.12 feet below TOC Drawdown: 0.30 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By:  **Date:** 5/22/2025

Field Data Sheet

Project Name: Landfill Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051157
Monitoring Point: G122
Sample ID: 008
Date (s): 5/22/2025

Field Team Members

Name: Payton Yoch — Affiliation: TekLab, Inc.
Name: Justin Colp — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 58 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 12:12
Static Water Level: 29.75 feet below TOC
Total Depth: 49.29 feet below TOC
Water Column: 19.54 feet

Purging Activities

Purged By: PY — Purge Date: 5/22/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 19.54 ft. x 0.022 = 0.43 L x 3 Vol. = 1.29 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Slightly cloudy — Odor: Moderate — Color: None

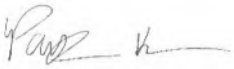
Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:19	0.0	192	purge start time						
12:33	2.7	↓	6.79	1,744.90	16.43	6.07	100.00	10.46	
12:36	3.3		6.77	1,747.10	15.80	6.06	100.80	8.54	
12:39	3.8		6.76	1,752.30	15.16	6.06	101.40	6.78	
12:42	4.4		6.75	1,756.80	14.80	6.04	101.50	6.16	
12:45	5.0		6.74	1,760.80	14.69	6.03	101.20	6.00	

Sampling Activities

Sampled By: PY — Sample Date/Time: 5/22/2025 12:45
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.74 pH — 1,760.80 Spec. Cond. — 14.69 Temp
Field Filtered: Yes — Filter Type: Inline Disposable
Water Level: 29.78 feet below TOC — Drawdown: 0.03 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By:  **Date:** 5/22/2025

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	AW-1
Project Location:	Springfield, IL	**Sample ID:**	009
W.O. Number (s):	25051157	**Date (s):**	5/22/2025

Field Team Members

Name: Payton Yoch Affiliation: TekLab, Inc.

Name: Justin Colp Affiliation: TekLab, Inc.

Weather Conditions

Temp: 57 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing		X
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Yes				

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 9:50

Static Water Level: 13.77 feet below TOC

Total Depth: 54.81 feet below TOC

Water Column: 41.04 feet

Purging Activities

Purged By: PY Purge Date: 5/22/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 41.04 ft. x 0.022 = 0.9 L x 3 Vol. = 2.7 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:55	0.0	172	purge start time						
10:12	2.9	↓	6.89	1,482.50	13.66	7.29	70.00	4.06	
10:15	3.4		6.90	1,480.20	13.86	7.16	70.40	4.64	
10:18	4.0		6.92	1,478.90	14.31	7.08	70.70	4.12	
10:21	4.5		6.94	1,478.80	14.50	7.10	71.00	3.38	
10:24	5.0		6.96	1,477.40	14.65	7.19	71.50	3.55	

Sampling Activities

Sampled By: PY Sample Date/Time: 5/22/2025 10:24

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.96 pH 1,477.40 Spec. Cond. 14.65 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 15.72 feet below TOC Drawdown: 1.95 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Payton K **Date:** 5/22/2025

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	AW-2
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	25051157	**Date (s):**	5/22/2025

Field Team Members

Name: Payton Yoch Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 59 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 13:23

Static Water Level: 4.92 feet below TOC

Total Depth: 32.64 feet below TOC

Water Column: 27.72 feet

Purging Activities

Purged By: PY Purge Date: 5/22/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 27.72 ft. x 0.022 = 0.61 L x 3 Vol. = 1.83 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: Slight Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:20	0.0	250	purge start time						
13:32	3.0	↓	6.92	1,111.00	13.52	4.93	91.00	8.14	
13:35	3.8		6.90	1,110.90	13.53	4.50	91.70	8.53	
13:38	4.5		6.90	1,110.60	13.55	4.17	92.00	8.27	
13:41	5.3		6.89	1,110.80	13.51	3.92	92.10	8.36	
13:44	6.0		6.89	1,110.70	13.52	3.71	91.90	9.46	

Sampling Activities

Sampled By: PY Sample Date/Time: 5/22/2025 13:44

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

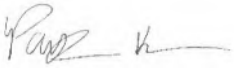
Sample Parameters: 6.89 pH 1,110.70 Spec. Cond. 13.52 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 5.05 feet below TOC Drawdown: 0.13 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By:  **Date:** 5/22/2025

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	RW-3
Project Location:	Springfield, IL	**Sample ID:**	011
W.O. Number (s):	25051157	**Date (s):**	5/21/2025

Field Team Members

Name: Danny Crump Affiliation: TekLab, Inc.

Name: Brett Gillihan Affiliation: TekLab, Inc.

Weather Conditions

Temp: 57 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 10:00

Static Water Level: 9.27 feet below TOC

Total Depth: 44.01 feet below TOC

Water Column: 34.74 feet

Purging Activities

Purged By: DC Purge Date: 5/21/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.74 ft. x 0.022 = 0.76 L x 3 Vol. = 2.28 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:00	0.0	300	purge start time						
10:08	2.4	↓	7.04	649.70	12.60	0.59	-99.00	8.49	
10:11	3.3		7.04	649.10	12.61	0.55	-103.90	6.68	
10:14	4.2		7.04	648.50	12.58	0.51	-108.10	4.91	
10:17	5.1		7.03	649.20	12.59	0.48	-111.30	5.05	
10:20	6.0		7.03	649.80	12.58	0.45	-114.40	5.04	

Sampling Activities

Sampled By: DC Sample Date/Time: 5/21/2025 10:20

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.03 pH 649.80 Spec. Cond. 12.58 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 9.27 feet below TOC Drawdown: 0.00 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/21/2025

Field Data Sheet

Project Name: Landfill Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051157
Monitoring Point: Duplicate
Sample ID: 012
Date (s): 5/21/2025

Field Team Members

Name: Payton Yoch — Affiliation: TekLab, Inc.
Name: Justin Colp — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 59 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 11:44
Static Water Level: 25.19 feet below TOC
Total Depth: 55.75 feet below TOC
Water Column: 30.56 feet

Purging Activities

Purged By: PY — Purge Date: 5/21/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 30.56 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Clear — Odor: Moderate — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:44	0.0	132	purge start time						
12:10	3.4	↓	6.70	1,476.10	14.76	2.46	71.30	3.92	
12:13	3.8		6.70	1,480.10	14.74	2.38	68.30	3.20	
12:16	4.2		6.71	1,488.60	14.71	2.31	65.40	2.38	
12:19	4.6		6.71	1,494.20	15.06	2.25	62.20	2.21	
12:22	5.0		6.71	1,501.00	14.93	2.20	59.10	1.99	

Sampling Activities

Sampled By: PY — Sample Date/Time: 5/21/2025 12:22
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.71 pH — 1,501.00 Spec. Cond. — 14.93 Temp
Field Filtered: Yes — Filter Type: Inline Disposable
Water Level: 25.31 feet below TOC — Drawdown: 0.12 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760
- QA/QC Sample
- Collected at R111

Form Completed By: Payton K — **Date:** 5/21/2025

Site Samping Event: Landfill Monitoring Wells
LIMS Workorder: 25051157
Technician(s): DC, JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 44716 Technician(s): Brett Gillihan Date: 5/21/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/21/25 9:19
7.0 Buffer	WC250407A	7.00	5/21/25 9:12
10.0 Buffer	WC240625A	10.00	5/21/25 9:25
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/21/25 9:31

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.23	5/21/25 9:37
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	5/21/25 9:41	17	7.01	1,447	0.63		
CCV-1-BG	CCV	5/21/25 16:03	17.8	7.04	1,422	0.66		

Comments:

Site Samping Event: Landfill Monitoring Wells
LIMS Workorder: 25051157
Technician(s): DC, JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210760 Technician(s): justin colp Date: 5/21/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc250102a	4.00	5/21/25 9:19
7.0 Buffer	wc250407a	7.00	5/21/25 9:14
10.0 Buffer	wc240625a	10.00	5/21/25 9:24
LCS/CCV (7.0 Buffer)	wc240918a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/21/25 9:29

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.12	5/21/25 9:30
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	5/21/25 9:34	18.9	6.98	1,410	1.08		
CCV-1-JC	CCV	5/21/25 14:37	20	6.96	1,434	1.05		

Comments:

Field Meter ID: Pine 210760 Technician(s): Payton Yoch Date: 5/22/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/22/25 9:14
7.0 Buffer	WC250407A	7.00	5/22/25 9:09
10.0 Buffer	WC240625A	10.00	5/22/25 9:20
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/22/25 9:23

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.07	5/22/25 9:31
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-PY	LCS	5/22/25 9:38	17.3	7.05	1,412	1.07		
CCV-2-PY	CCV	5/22/25 14:14	18.5	6.98	1,415	1.08		

Comments:

Site Samping Event: Landfill Monitoring Wells
LIMS Workorder: 25051157
Technician(s): DC, JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210760 Technician(s): justin colp Date: 5/27/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/27/25 8:56
7.0 Buffer	WC250407A	7.00	5/27/25 8:50
10.0 Buffer	WC240625A	10.00	5/27/25 9:01
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/27/25 9:07

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.21	5/27/25 9:08
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-JC	LCS	5/27/25 9:11	19.2	6.96	1,407	1.24		
CCV-3-JC	CCV	5/27/25 14:15	21.9	7.02	1,404	1.31		

Comments:

July 03, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10438
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 25051159

Dear Eric Staley:

TEKLAB, INC received 5 samples on 5/27/2025 3:35:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 25051159
Report Date: 03-Jul-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	12
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 25051159

Client Project: FGDS Landfill **Report Date:** 03-Jul-25

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 25051159
Client Project: FGDS Landfill
Report Date: 03-Jul-25

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 25051159
Report Date: 03-Jul-25

Cooler Receipt Temp: 4.5 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 25051159
Client Project: FGDS Landfill
Report Date: 03-Jul-25

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2026	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2026	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2026	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2025	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 25051159

Client Project: FGDS Landfill **Report Date:** 03-Jul-25

Lab ID: 25051159-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 05/27/2025 10:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	05/27/2025 10:46	R365854
Depth to water	*	-5.00		**4.08**	ft	1	05/27/2025 10:46	R365854
Depth to water from measuring point	*	0		**6.88**	ft	1	05/27/2025 10:46	R365854
Elevation of groundwater surface	*	0		**539.92**	ft	1	05/27/2025 10:46	R365854
Measuring Point Elevation	*	0		**546.80**	ft	1	05/27/2025 10:46	R365854
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	05/27/2025 10:46	R365854
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**10**	NTU	1	05/27/2025 10:46	R365854
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.9**	°F	1	05/27/2025 10:46	R365854
SW-846 9040B								
pH, Field	*	1.00		**6.79**		1	05/27/2025 10:46	R365854
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1330**	µmhos/cm @25C	1	05/27/2025 10:46	R365854
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**902**	mg/L	1	06/02/2025 17:03	R365986
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/28/2025 12:35	R365685
Chloride	NELAP	5.00		**109**	mg/L	10	05/28/2025 12:35	R365685
Sulfate	NELAP	10.0		**272**	mg/L	10	05/28/2025 12:35	R365685
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.149**	mg/L	1	05/29/2025 19:17	239684
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 19:17	239684
Boron	NELAP	0.0200		**0.116**	mg/L	1	06/02/2025 22:22	239684
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 19:17	239684
Calcium	NELAP	0.100		**163**	mg/L	1	05/29/2025 19:17	239684
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 19:17	239684
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/02/2025 22:22	239684
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 19:17	239684
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 19:17	239684
Contamination present in the CCB for Cr. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:32	239684
Arsenic	NELAP	0.0010		**0.0011**	mg/L	5	05/28/2025 16:32	239684
Lithium	*	0.0030		**0.0194**	mg/L	5	05/28/2025 16:32	239684
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:32	239684
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 16:32	239684
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/29/2025 15:59	239734
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	07/02/2025 0:00	R367646
Radium-228	*	0		**See Attached**	pci/L	1	07/02/2025 0:00	R367646

Client: City Water, Light & Power **Work Order:** 25051159

Client Project: FGDS Landfill **Report Date:** 03-Jul-25

Lab ID: 25051159-002 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 05/22/2025 11:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	05/22/2025 11:43	R365854
Depth to water	*	-5.00		**25.95**	ft	1	05/22/2025 11:43	R365854
Depth to water from measuring point	*	0		**27.82**	ft	1	05/22/2025 11:43	R365854
Elevation of groundwater surface	*	0		**527.78**	ft	1	05/22/2025 11:43	R365854
Measuring Point Elevation	*	0		**555.60**	ft	1	05/22/2025 11:43	R365854
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	05/22/2025 11:43	R365854
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**22**	NTU	1	05/22/2025 11:43	R365854
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.9**	°F	1	05/22/2025 11:43	R365854
SW-846 9040B								
pH, Field	*	1.00		**6.79**		1	05/22/2025 11:43	R365854
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1560**	µmhos/cm @25C	1	05/22/2025 11:43	R365854
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	100		**1210**	mg/L	5	05/27/2025 16:01	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/23/2025 19:40	R365493
Chloride	NELAP	5.00		**29.9**	mg/L	10	05/23/2025 19:40	R365493
Sulfate	NELAP	10.0		**328**	mg/L	10	05/23/2025 19:40	R365493
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.641**	mg/L	1	05/30/2025 9:23	239588
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/30/2025 9:23	239588
Boron	NELAP	0.0200		**3.93**	mg/L	1	05/30/2025 9:23	239588
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/30/2025 9:23	239588
Calcium	NELAP	0.100		**185**	mg/L	1	05/30/2025 9:23	239588
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/30/2025 9:23	239588
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/30/2025 9:23	239588
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/30/2025 9:23	239588
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/30/2025 9:23	239588
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 16:40	239588
Arsenic	NELAP	0.0010		**0.0180**	mg/L	5	05/27/2025 16:40	239588
Lithium	*	0.0030		**0.0070**	mg/L	5	05/27/2025 16:40	239588
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 16:40	239588
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/27/2025 16:40	239588
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/27/2025 13:17	239623
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	07/02/2025 0:00	R367646
Radium-228	*	0		**See Attached**	pci/L	1	07/02/2025 0:00	R367646

Client: City Water, Light & Power
Work Order: 25051159
Client Project: FGDS Landfill
Report Date: 03-Jul-25
Lab ID: 25051159-003
Client Sample ID: G122
Matrix: GROUNDWATER
Collection Date: 05/22/2025 12:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	05/22/2025 12:45	R365854
Depth to water	*	-5.00		**28.01**	ft	1	05/22/2025 12:45	R365854
Depth to water from measuring point	*	0		**29.75**	ft	1	05/22/2025 12:45	R365854
Elevation of groundwater surface	*	0		**524.65**	ft	1	05/22/2025 12:45	R365854
Measuring Point Elevation	*	0		**554.40**	ft	1	05/22/2025 12:45	R365854
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	05/22/2025 12:45	R365854
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.0**	NTU	1	05/22/2025 12:45	R365854
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.4**	°F	1	05/22/2025 12:45	R365854
SW-846 9040B								
pH, Field	*	1.00		**6.74**		1	05/22/2025 12:45	R365854
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1760**	µmhos/cm @25C	1	05/22/2025 12:45	R365854
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	200		**1480**	mg/L	10	05/27/2025 16:01	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/23/2025 19:51	R365493
Chloride	NELAP	5.00		**37.4**	mg/L	10	05/23/2025 19:51	R365493
Sulfate	NELAP	10.0		**526**	mg/L	10	05/23/2025 19:51	R365493
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.456**	mg/L	1	05/30/2025 9:24	239588
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/30/2025 9:24	239588
Boron	NELAP	0.0200		**11.1**	mg/L	1	05/30/2025 9:24	239588
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/30/2025 9:24	239588
Calcium	NELAP	0.100		**230**	mg/L	1	05/30/2025 9:24	239588
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/30/2025 9:24	239588
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/30/2025 9:24	239588
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/30/2025 9:24	239588
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/30/2025 9:24	239588
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 16:46	239588
Arsenic	NELAP	0.0010		**0.0027**	mg/L	5	05/27/2025 16:46	239588
Lithium	*	0.0030		**0.0062**	mg/L	5	05/27/2025 16:46	239588
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 16:46	239588
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/27/2025 16:46	239588
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/27/2025 13:19	239623
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	07/02/2025 0:00	R367646
Radium-228	*	0		**See Attached**	pci/L	1	07/02/2025 0:00	R367646

Client: City Water, Light & Power **Work Order:** 25051159

Client Project: FGDS Landfill **Report Date:** 03-Jul-25

Lab ID: 25051159-004 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 05/22/2025 13:44

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	05/22/2025 13:44	R365854
Depth to water	*	-5.00		**1.62**	ft	1	05/22/2025 13:44	R365854
Depth to water from measuring point	*	0		**4.92**	ft	1	05/22/2025 13:44	R365854
Elevation of groundwater surface	*	0		**525.06**	ft	1	05/22/2025 13:44	R365854
Measuring Point Elevation	*	0		**529.98**	ft	1	05/22/2025 13:44	R365854
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	05/22/2025 13:44	R365854
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.5**	NTU	1	05/22/2025 13:44	R365854
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.3**	°F	1	05/22/2025 13:44	R365854
SW-846 9040B								
pH, Field	*	1.00		**6.89**		1	05/22/2025 13:44	R365854
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1110**	µmhos/cm @25C	1	05/22/2025 13:44	R365854
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	100		**810**	mg/L	5	05/27/2025 16:01	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/23/2025 20:03	R365493
Chloride	NELAP	5.00		**29.5**	mg/L	10	05/23/2025 20:03	R365493
Sulfate	NELAP	10.0		**146**	mg/L	10	05/23/2025 20:03	R365493
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.647**	mg/L	1	05/30/2025 9:30	239588
Beryllium	NELAP	0.0005		**0.0006**	mg/L	1	05/30/2025 9:30	239588
Boron	NELAP	0.0200		**3.05**	mg/L	1	05/30/2025 9:30	239588
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/30/2025 9:30	239588
Calcium	NELAP	0.100		**148**	mg/L	1	05/30/2025 9:30	239588
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/30/2025 9:30	239588
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/30/2025 9:30	239588
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/30/2025 9:30	239588
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/30/2025 9:30	239588
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 17:14	239588
Arsenic	NELAP	0.0010		**0.0166**	mg/L	5	05/27/2025 17:14	239588
Lithium	*	0.0030		**0.0062**	mg/L	5	05/27/2025 17:14	239588
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 17:14	239588
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/27/2025 17:14	239588
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/27/2025 13:21	239623
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	07/02/2025 0:00	R367646
Radium-228	*	0		**See Attached**	pci/L	1	07/02/2025 0:00	R367646

Client: City Water, Light & Power **Work Order:** 25051159

Client Project: FGDS Landfill **Report Date:** 03-Jul-25

Lab ID: 25051159-005 **Client Sample ID:** P07D

Matrix: GROUNDWATER **Collection Date:** 05/27/2025 10:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**528.25**	ft	1	05/27/2025 10:04	R365854
Depth to water	*	-5.00		**2.31**	ft	1	05/27/2025 10:04	R365854
Depth to water from measuring point	*	0		**5.31**	ft	1	05/27/2025 10:04	R365854
Elevation of groundwater surface	*	0		**522.94**	ft	1	05/27/2025 10:04	R365854
Measuring Point Elevation	*	0		**528.25**	ft	1	05/27/2025 10:04	R365854
Measuring Point Height Above Land Surface	*	0		**3.00**	ft	1	05/27/2025 10:04	R365854
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.2**	NTU	1	05/27/2025 10:04	R365854
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.0**	°F	1	05/27/2025 10:04	R365854
SW-846 9040B								
pH, Field	*	1.00		**6.72**		1	05/27/2025 10:04	R365854
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1540**	µmhos/cm @25C	1	05/27/2025 10:04	R365854
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1110**	mg/L	1	06/02/2025 17:03	R365986
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/28/2025 12:47	R365685
Chloride	NELAP	5.00		**33.5**	mg/L	10	05/28/2025 12:47	R365685
Sulfate	NELAP	10.0		**307**	mg/L	10	05/28/2025 12:47	R365685
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.827**	mg/L	1	05/29/2025 19:18	239684
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 19:18	239684
Boron	NELAP	0.0200		**5.28**	mg/L	1	05/29/2025 19:18	239684
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 19:18	239684
Calcium	NELAP	0.100		**187**	mg/L	1	05/29/2025 19:18	239684
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 19:18	239684
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 19:18	239684
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 19:18	239684
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 19:18	239684
Sample result(s) for B exceed 10 times the CCB. Data is reportable per the TNI Standard.								
Contamination present in the CCB for Cr. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:38	239684
Arsenic	NELAP	0.0010		**0.0324**	mg/L	5	05/28/2025 16:38	239684
Lithium	*	0.0030		**0.0099**	mg/L	5	05/28/2025 16:38	239684
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:38	239684
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 16:38	239684
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/29/2025 16:02	239734
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	07/02/2025 0:00	R367646
Radium-228	*	0		**See Attached**	pci/L	1	07/02/2025 0:00	R367646

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 25051159
Report Date: 03-Jul-25

Carrier: Daniel Crump
Received By: JMD

Completed by: Laura E Henson
On: 23-May-25

Reviewed by: Ellie Hopkins
On: 27-May-25

Pages to follow: Chain of custody 2 Extra pages included 23

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 4.5
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #101358. -JD/ lhenson - 5/23/2025 11:44:59 AM

Samples were received on 5/27/25 at 1535 on ice [13.1C - LTG#5]. Additional Nitric Acid (103505) was needed upon arrival at the laboratory for P07D. pH strip #101358. - EK/amberdilallo - 5/27/2025 4:06:13 PM

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 2505 1159

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 4.5 °C #9
Preserved in: [ ] LAB [X] FIELD
LAB NOTES: 101358

FOR LAB USE ONLY

JD 5/23/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
2505 1159 001	R101		Groundwater	1	3								✓	✓	✓	✓	✓	✓
002	G121	5/22/25 1143	Groundwater	1	3								✓	✓	✓	✓	✓	✓
003	G122	5/22/25 1245	Groundwater	1	3								✓	✓	✓	✓	✓	✓
004	AW-2	5/22/25 1344	Groundwater	1	3								✓	✓	✓	✓	✓	✓
005	P07D		Groundwater	1	3								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	5-22/1545		5/22/25 13:45

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 25051159

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 13.1 °C 5
Preserved in: [x] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: pH✓ 101358 Added HNO3 (103505) to both 1 liter P07D samples. EK 5/27/25

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

PROJECT NAME/NUMBER: FGDS Landfill
SAMPLE COLLECTOR'S NAME: Justin Colp

RESULTS REQUESTED: [x] Standard [ ] 1-2 Day (100% Surcharge) [ ] Other _____ [ ] 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25051159-001	R101	5-27-25 1046	Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	G121		Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	G122		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AW-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	P07D	5-27-25 1004	Groundwater	1	2								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	5-27 /535	Emily Kosakoski	5/27/25 @ 1535

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25051159
Monitoring Point: R101
Sample ID: 001
Date (s): 5/27/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 62 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 10:17
Static Water Level: 6.88 feet below TOC
Total Depth: 35.27 feet below TOC
Water Column: 28.39 feet

Purging Activities

Purged By: JC Purge Date: 5/27/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 28.39 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 7.00 L
Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:18	0.0	250	purge start time						
10:25	1.7	↓	6.96	1,328.90	12.73	5.18	88.40	11.76	
10:28	2.5		6.90	1,328.50	12.68	4.72	88.50	9.21	
10:31	3.2		6.86	1,329.10	12.65	4.39	88.30	6.05	
10:34	4.0		6.83	1,329.90	12.65	4.13	88.30	6.27	
10:37	4.8		6.82	1,329.90	12.66	3.93	88.00	6.82	
10:40	5.5		6.81	1,330.10	12.65	3.77	87.70	8.03	
10:43	6.3		6.80	1,329.60	12.66	3.64	87.40	9.04	
10:46	7.0		6.79	1,330.40	12.72	3.53	87.30	10.24	

Sampling Activities

Sampled By: JC Sample Date/Time: 5/27/2025 10:46
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.79 pH 1,330.40 Spec. Cond. 12.72 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 10.17 feet below TOC Drawdown: 3.29 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Justin Colp **Date:** 5/27/2025

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G121
Project Location:	Springfield, IL	**Sample ID:**	002
W.O. Number (s):	25051159	**Date (s):**	5/22/2025

Field Team Members

Name: Payton Yoch Affiliation: TekLab, Inc.

Name: Justin Colp Affiliation: TekLab, Inc.

Weather Conditions

Temp: 57 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 10:57

Static Water Level: 27.82 feet below TOC

Total Depth: 58.56 feet below TOC

Water Column: 30.74 feet

Purging Activities

Purged By: PY Purge Date: 5/22/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.74 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: Moderate Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:16	0.0	222	purge start time						
11:31	3.3	↓	6.81	1,556.30	14.05	4.51	87.60	43.15	
11:34	4.0		6.80	1,555.90	14.11	4.21	89.10	41.96	
11:37	4.7		6.79	1,555.10	14.17	3.96	90.20	31.18	
11:40	5.3		6.79	1,557.20	14.34	3.75	90.90	26.58	
11:43	6.0		6.79	1,555.80	14.37	3.60	91.20	21.79	

Sampling Activities

Sampled By: PY Sample Date/Time: 5/22/2025 11:43

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

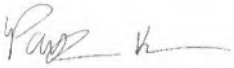
Sample Parameters: 6.79 pH 1,555.80 Spec. Cond. 14.37 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 28.12 feet below TOC Drawdown: 0.30 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By:  **Date:** 5/22/2025

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25051159
Monitoring Point: G122
Sample ID: 003
Date (s): 5/22/2025

Field Team Members

Name: Payton Yoch Affiliation: TekLab, Inc.
Name: Justin Colp Affiliation: TekLab, Inc.

Weather Conditions

Temp: 58 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 12:12
Static Water Level: 29.75 feet below TOC
Total Depth: 49.29 feet below TOC
Water Column: 19.54 feet

Purging Activities

Purged By: PY Purge Date: 5/22/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 19.54 ft. x 0.022 = 0.43 L x 3 Vol. = 1.29 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Slightly cloudy Odor: Moderate Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:19	0.0	192	purge start time						
12:33	2.7	↓	6.79	1,744.90	16.43	6.07	100.00	10.46	
12:36	3.3		6.77	1,747.10	15.80	6.06	100.80	8.54	
12:39	3.8		6.76	1,752.30	15.16	6.06	101.40	6.78	
12:42	4.4		6.75	1,756.80	14.80	6.04	101.50	6.16	
12:45	5.0		6.74	1,760.80	14.69	6.03	101.20	6.00	

Sampling Activities

Sampled By: PY Sample Date/Time: 5/22/2025 12:45
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.74 pH 1,760.80 Spec. Cond. 14.69 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 29.78 feet below TOC Drawdown: 0.03 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Payton K **Date:** 5/22/2025

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25051159
Monitoring Point: AW-2
Sample ID: 004
Date (s): 5/22/2025

Field Team Members

Name: Payton Yoch Affiliation: TekLab, Inc.
Name: Justin Colp Affiliation: TekLab, Inc.

Weather Conditions

Temp: 59 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 13:23
Static Water Level: 4.92 feet below TOC
Total Depth: 32.64 feet below TOC
Water Column: 27.72 feet

Purging Activities

Purged By: PY Purge Date: 5/22/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 27.72 ft. x 0.022 = 0.61 L x 3 Vol. = 1.83 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Clear Odor: Slight Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:20	0.0	250	purge start time						
13:32	3.0	↓	6.92	1,111.00	13.52	4.93	91.00	8.14	
13:35	3.8		6.90	1,110.90	13.53	4.50	91.70	8.53	
13:38	4.5		6.90	1,110.60	13.55	4.17	92.00	8.27	
13:41	5.3		6.89	1,110.80	13.51	3.92	92.10	8.36	
13:44	6.0		6.89	1,110.70	13.52	3.71	91.90	9.46	

Sampling Activities

Sampled By: PY Sample Date/Time: 5/22/2025 13:44
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.89 pH 1,110.70 Spec. Cond. 13.52 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 5.05 feet below TOC Drawdown: 0.13 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Payton K **Date:** 5/22/2025

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	P07D
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	25051159	**Date (s):**	5/27/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 60 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 9:24

Static Water Level: 5.31 feet below TOC

Total Depth: 32.54 feet below TOC

Water Column: 27.23 feet

Purging Activities

Purged By: JC — Purge Date: 5/27/2025

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 27.23 ft. x 0.022 = 0.6 L x 3 Vol. = 1.8 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:24	0.0	125	purge start time						
9:31	0.9	↓	6.74	1,512.10	13.29	6.24	84.60	141.77	
9:34	1.3		6.68	1,532.30	13.26	5.52	86.50	94.37	
9:37	1.6		6.67	1,537.60	13.25	5.00	87.50	66.78	
9:40	2.0		6.67	1,539.00	13.18	4.60	88.00	40.75	
9:43	2.4		6.68	1,538.70	13.18	4.29	88.30	31.60	
9:46	2.8		6.68	1,539.00	13.19	4.04	88.60	23.85	
9:49	3.1		6.69	1,538.00	13.18	3.83	88.90	16.62	
9:52	3.5		6.70	1,538.40	13.18	3.65	89.20	12.54	
9:55	3.9		6.71	1,538.40	13.25	3.50	89.40	11.54	
9:58	4.3		6.71	1,538.30	13.26	3.39	89.60	9.94	
10:01	4.6		6.72	1,537.50	13.34	3.28	89.80	9.82	
10:04	5.0		6.72	1,538.40	13.36	3.19	89.90	8.15	

Sampling Activities

Sampled By: JC — Sample Date/Time: 5/27/2025 10:04

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.72 pH — 1,538.40 Spec. Cond. — 13.36 Temp

Field Filtered: No — Filter Type:

Water Level: 5.50 feet below TOC — Drawdown: 0.19 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Justin Colp — **Date:** 5/27/2025

Site Samping Event: FGDS Landfill
LIMS Workorder: 25051159
Technician(s): DC, JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 44716 Technician(s): Brett Gillihan Date: 5/27/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/27/25 8:17
7.0 Buffer	WC25047A	7.00	5/27/25 8:10
10.0 Buffer	WC240625A	10.00	5/27/25 8:26
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1413	5/27/25 8:36

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.23	5/27/25 8:43
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-BG	LCS	5/27/25 8:48	16.9	7.05	1,443	0.42		
CCV-3-BG	CCV	5/27/25 14:12	18.6	7.03	1,464	0.54		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 25051159
Technician(s): DC, JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210760 Technician(s): justin colp Date: 5/21/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc250102a	4.00	5/21/25 9:19
7.0 Buffer	wc250407a	7.00	5/21/25 9:14
10.0 Buffer	wc240625a	10.00	5/21/25 9:24
LCS/CCV (7.0 Buffer)	wc240918a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/21/25 9:29

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.12	5/21/25 9:30
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	5/21/25 9:34	18.9	6.98	1,410	1.08		
CCV-1-JC	CCV	5/21/25 14:37	20	6.96	1,434	1.05		

Comments:

Field Meter ID: Pine 210760 Technician(s): Payton Yoch Date: 5/22/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/22/25 9:14
7.0 Buffer	WC250407A	7.00	5/22/25 9:09
10.0 Buffer	WC240625A	10.00	5/22/25 9:20
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/22/25 9:23

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.07	5/22/25 9:31
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-PY	LCS	5/22/25 9:38	17.3	7.05	1,412	1.07		
CCV-2-PY	CCV	5/22/25 14:14	18.5	6.98	1,415	1.08		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 25051159
Technician(s): DC, JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210760 Technician(s): justin colp Date: 5/27/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/27/25 8:56
7.0 Buffer	WC250407A	7.00	5/27/25 8:50
10.0 Buffer	WC240625A	10.00	5/27/25 9:01
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/27/25 9:07

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.21	5/27/25 9:08
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-JC	LCS	5/27/25 9:11	19.2	6.96	1,407	1.24		
CCV-3-JC	CCV	5/27/25 14:15	21.9	7.02	1,404	1.31		

Comments:

Field Meter ID: Pine 210760 Technician(s): justin colp Date: 5/28/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/28/25 8:47
7.0 Buffer	WC250407A	7.00	5/28/25 8:43
10.0 Buffer	WC240625A	10.00	5/28/25 8:51
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/28/25 8:57

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.12	5/28/25 8:58
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4-JC	LCS	5/28/25 9:03	20.5	6.97	1,409	1.16		
CCV-4-JC	CCV	5/28/25 12:20	20.8	6.93	1,400	1.57		

Comments:

June 27, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10438
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 25051158

Dear Eric Staley:

TEKLAB, INC received 22 samples on 5/28/2025 1:50:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25051158
Report Date: 27-Jun-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	29
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 25051158

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Jun-25

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25051158
Report Date: 27-Jun-25

Cooler Receipt Temp: 5.9 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Eurofins St. Louis. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2026	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2026	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2026	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2025	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 05/21/2025 10:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	05/21/2025 10:20	R365853
Depth to water	*	-5.00		**6.57**	ft	1	05/21/2025 10:20	R365853
Depth to water from measuring point	*	0		**9.27**	ft	1	05/21/2025 10:20	R365853
Elevation of groundwater surface	*	0		**530.23**	ft	1	05/21/2025 10:20	R365853
Measuring Point Elevation	*	0		**539.50**	ft	1	05/21/2025 10:20	R365853
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	05/21/2025 10:20	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.0**	NTU	1	05/21/2025 10:20	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.6**	°F	1	05/21/2025 10:20	R365853
SW-846 9040B								
pH, Field	*	1.00		**7.03**		1	05/21/2025 10:20	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**650**	µmhos/cm @25C	1	05/21/2025 10:20	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	50		**385**	mg/L	2.5	05/27/2025 15:58	R365834
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/22/2025 12:48	R365418
Chloride	NELAP	5.00		**25.0**	mg/L	10	05/22/2025 12:48	R365418
Sulfate	NELAP	10.0		**ND**	mg/L	10	05/22/2025 12:48	R365418
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.142**	mg/L	1	05/29/2025 8:50	239494
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 8:50	239494
Boron	NELAP	0.0200		**0.153**	mg/L	1	05/29/2025 8:50	239494
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 8:50	239494
Calcium	NELAP	0.100	B	**64.9**	mg/L	1	05/29/2025 8:50	239494
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:50	239494
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:50	239494
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 8:50	239494
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 8:50	239494
Sample result for Ca exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:05	239494
Arsenic	NELAP	0.0010		**0.0808**	mg/L	5	05/27/2025 21:20	239494
Lithium	*	0.0030		**0.0051**	mg/L	5	05/27/2025 21:20	239494
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:05	239494
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 19:05	239494
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2025 17:26	239492
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/24/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/24/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-002
Client Sample ID: AP-1
Matrix: GROUNDWATER
Collection Date: 05/28/2025 9:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**504.29**	ft	1	05/28/2025 9:56	R365853
Depth to water	*	-5.00		**7.52**	ft	1	05/28/2025 9:56	R365853
Depth to water from measuring point	*	0		**9.79**	ft	1	05/28/2025 9:56	R365853
Elevation of groundwater surface	*	0		**525.58**	ft	1	05/28/2025 9:56	R365853
Measuring Point Elevation	*	0		**535.37**	ft	1	05/28/2025 9:56	R365853
Measuring Point Height Above Land Surface	*	0		**2.27**	ft	1	05/28/2025 9:56	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.7**	NTU	1	05/28/2025 9:56	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.2**	°F	1	05/28/2025 9:56	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.42**		1	05/28/2025 9:56	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2100**	µmhos/cm @25C	1	05/28/2025 9:56	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1740**	mg/L	1	06/04/2025 8:44	R366213
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/29/2025 8:47	R365636
Chloride	NELAP	5.00		**50.1**	mg/L	10	05/29/2025 8:47	R365636
Sulfate	NELAP	10.0		**858**	mg/L	10	05/29/2025 8:47	R365636
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.262**	mg/L	1	06/03/2025 12:47	239769
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/03/2025 12:47	239769
Boron	NELAP	0.200		**20.8**	mg/L	10	06/04/2025 12:30	239769
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/03/2025 12:47	239769
Calcium	NELAP	0.100		**228**	mg/L	1	06/03/2025 12:47	239769
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2025 12:47	239769
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2025 12:47	239769
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/03/2025 12:47	239769
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/03/2025 12:47	239769
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/30/2025 13:09	239769
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	06/03/2025 0:45	239769
Lithium	*	0.0030		**0.0102**	mg/L	5	05/30/2025 13:09	239769
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/30/2025 13:09	239769
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/30/2025 13:09	239769
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/30/2025 11:47	239778
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/24/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/24/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 05/21/2025 13:33

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	05/21/2025 13:33	R365853
Depth to water	*	-5.00		**5.29**	ft	1	05/21/2025 13:33	R365853
Depth to water from measuring point	*	0		**7.79**	ft	1	05/21/2025 13:33	R365853
Elevation of groundwater surface	*	0		**528.31**	ft	1	05/21/2025 13:33	R365853
Measuring Point Elevation	*	0		**536.10**	ft	1	05/21/2025 13:33	R365853
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	05/21/2025 13:33	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**24**	NTU	1	05/21/2025 13:33	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.4**	°F	1	05/21/2025 13:33	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.45**		1	05/21/2025 13:33	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1180**	µmhos/cm @25C	1	05/21/2025 13:33	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1100**	mg/L	1	05/27/2025 15:58	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/22/2025 13:01	R365418
Chloride	NELAP	5.00		**36.2**	mg/L	10	05/22/2025 13:01	R365418
Sulfate	NELAP	10.0		**367**	mg/L	10	05/22/2025 13:01	R365418
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0654**	mg/L	1	05/29/2025 8:50	239494
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 8:50	239494
Boron	NELAP	0.0200		**3.12**	mg/L	1	05/29/2025 8:50	239494
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 8:50	239494
Calcium	NELAP	0.100	B	**183**	mg/L	1	05/29/2025 8:50	239494
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:50	239494
Cobalt	NELAP	0.0050		**0.0095**	mg/L	1	05/29/2025 8:50	239494
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 8:50	239494
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 8:50	239494
Sample result for Ca exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:11	239494
Arsenic	NELAP	0.0010		**0.0013**	mg/L	5	05/27/2025 21:26	239494
Lithium	*	0.0030		**0.0059**	mg/L	5	05/27/2025 21:26	239494
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:11	239494
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 19:11	239494
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2025 17:28	239492
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/24/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/24/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 05/21/2025 12:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	05/21/2025 12:56	R365853
Depth to water	*	-5.00		**5.12**	ft	1	05/21/2025 12:56	R365853
Depth to water from measuring point	*	0		**7.67**	ft	1	05/21/2025 12:56	R365853
Elevation of groundwater surface	*	0		**527.58**	ft	1	05/21/2025 12:56	R365853
Measuring Point Elevation	*	0		**535.25**	ft	1	05/21/2025 12:56	R365853
Measuring Point Height Above Land Surface	*	0		**2.55**	ft	1	05/21/2025 12:56	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.2**	NTU	1	05/21/2025 12:56	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.8**	°F	1	05/21/2025 12:56	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.53**		1	05/21/2025 12:56	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1130**	µmhos/cm @25C	1	05/21/2025 12:56	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	100		**1180**	mg/L	5	05/27/2025 15:59	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/22/2025 13:13	R365418
Chloride	NELAP	5.00		**61.7**	mg/L	10	05/22/2025 13:13	R365418
Sulfate	NELAP	10.0		**505**	mg/L	10	05/22/2025 13:13	R365418
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.106**	mg/L	1	05/29/2025 8:51	239494
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 8:51	239494
Boron	NELAP	0.0200		**12.9**	mg/L	1	05/29/2025 8:51	239494
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 8:51	239494
Calcium	NELAP	0.100	B	**171**	mg/L	1	05/29/2025 8:51	239494
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:51	239494
Cobalt	NELAP	0.0050		**0.0081**	mg/L	1	05/30/2025 8:29	239494
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 8:51	239494
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 8:51	239494
Sample result for Ca exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:17	239494
Arsenic	NELAP	0.0010		**0.0103**	mg/L	5	05/27/2025 21:31	239494
Lithium	*	0.0030		**0.0046**	mg/L	5	05/27/2025 21:31	239494
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:17	239494
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 19:17	239494
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2025 17:35	239492
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/24/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/24/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-005
Client Sample ID: AP-4
Matrix: GROUNDWATER
Collection Date: 05/28/2025 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.19**	ft	1	05/28/2025 11:31	R365853
Depth to water	*	-5.00		**7.24**	ft	1	05/28/2025 11:31	R365853
Depth to water from measuring point	*	0		**10.38**	ft	1	05/28/2025 11:31	R365853
Elevation of groundwater surface	*	0		**545.22**	ft	1	05/28/2025 11:31	R365853
Measuring Point Elevation	*	0		**555.60**	ft	1	05/28/2025 11:31	R365853
Measuring Point Height Above Land Surface	*	0		**3.14**	ft	1	05/28/2025 11:31	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**170**	NTU	1	05/28/2025 11:31	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.6**	°F	1	05/28/2025 11:31	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.69**		1	05/28/2025 11:31	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**979**	µmhos/cm @25C	1	05/28/2025 11:31	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**528**	mg/L	1	06/04/2025 8:44	R366213
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/29/2025 9:00	R365636
Chloride	NELAP	5.00		**12.1**	mg/L	10	05/29/2025 9:00	R365636
Sulfate	NELAP	10.0		**ND**	mg/L	10	05/29/2025 9:00	R365636
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.434**	mg/L	1	06/03/2025 12:48	239769
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/03/2025 12:48	239769
Boron	NELAP	0.0200		**0.0772**	mg/L	1	06/03/2025 12:48	239769
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/03/2025 12:48	239769
Calcium	NELAP	0.100		**113**	mg/L	1	06/03/2025 12:48	239769
Chromium	NELAP	0.0050		**0.0081**	mg/L	1	06/03/2025 12:48	239769
Cobalt	NELAP	0.0050		**0.0083**	mg/L	1	06/03/2025 12:48	239769
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/04/2025 12:31	239769
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/03/2025 12:48	239769
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/30/2025 13:15	239769
Arsenic	NELAP	0.0010		**0.0223**	mg/L	5	06/03/2025 0:51	239769
Lithium	*	0.0030		**0.0117**	mg/L	5	05/30/2025 13:15	239769
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/30/2025 13:15	239769
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/30/2025 13:15	239769
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/30/2025 11:49	239778
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/24/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/24/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-006
Client Sample ID: AP-5
Matrix: GROUNDWATER
Collection Date: 05/21/2025 10:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**552.63**	ft	1	05/21/2025 10:31	R365853
Depth to water	*	-5.00		**12.11**	ft	1	05/21/2025 10:31	R365853
Depth to water from measuring point	*	0		**14.41**	ft	1	05/21/2025 10:31	R365853
Elevation of groundwater surface	*	0		**569.49**	ft	1	05/21/2025 10:31	R365853
Measuring Point Elevation	*	0		**583.90**	ft	1	05/21/2025 10:31	R365853
Measuring Point Height Above Land Surface	*	0		**2.30**	ft	1	05/21/2025 10:31	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.3**	NTU	1	05/21/2025 10:31	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.3**	°F	1	05/21/2025 10:31	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.67**		1	05/21/2025 10:31	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**834**	µmhos/cm @25C	1	05/21/2025 10:31	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**514**	mg/L	1	05/27/2025 16:00	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/22/2025 13:26	R365418
Chloride	NELAP	5.00		**9.13**	mg/L	10	05/22/2025 13:26	R365418
Sulfate	NELAP	10.0		**63.6**	mg/L	10	05/22/2025 13:26	R365418
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0571**	mg/L	1	05/29/2025 8:52	239494
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 8:52	239494
Boron	NELAP	0.0200		**0.0521**	mg/L	1	05/29/2025 8:52	239494
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 8:52	239494
Calcium	NELAP	0.100	B	**97.6**	mg/L	1	05/29/2025 8:52	239494
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:52	239494
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:52	239494
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 8:52	239494
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 8:52	239494
Sample result for Ca exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:23	239494
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 21:37	239494
Lithium	*	0.0030		**0.0044**	mg/L	5	05/27/2025 21:37	239494
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:23	239494
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 19:23	239494
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2025 17:42	239492
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-007
Client Sample ID: AP-6
Matrix: GROUNDWATER
Collection Date: 05/21/2025 14:16

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.20**	ft	1	05/21/2025 14:16	R365853
Depth to water	*	-5.00		**5.35**	ft	1	05/21/2025 14:16	R365853
Depth to water from measuring point	*	0		**7.77**	ft	1	05/21/2025 14:16	R365853
Elevation of groundwater surface	*	0		**530.05**	ft	1	05/21/2025 14:16	R365853
Measuring Point Elevation	*	0		**537.82**	ft	1	05/21/2025 14:16	R365853
Measuring Point Height Above Land Surface	*	0		**2.42**	ft	1	05/21/2025 14:16	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.0**	NTU	1	05/21/2025 14:16	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.7**	°F	1	05/21/2025 14:16	R365853
SW-846 9040B								
pH, Field	*	1.00		**7.00**		1	05/21/2025 14:16	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**684**	µmhos/cm @25C	1	05/21/2025 14:16	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**432**	mg/L	1	05/27/2025 16:00	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**0.58**	mg/L	10	05/22/2025 13:39	R365418
Chloride	NELAP	5.00		**32.6**	mg/L	10	05/22/2025 13:39	R365418
Sulfate	NELAP	10.0		**ND**	mg/L	10	05/22/2025 13:39	R365418
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.154**	mg/L	1	05/29/2025 8:53	239494
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 8:53	239494
Boron	NELAP	0.0200		**0.407**	mg/L	1	05/29/2025 8:53	239494
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 8:53	239494
Calcium	NELAP	0.100	B	**65.1**	mg/L	1	05/29/2025 8:53	239494
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:53	239494
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:53	239494
Lead	NELAP	0.0075		**0.0230**	mg/L	1	05/29/2025 8:53	239494
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 8:53	239494
Sample result for Ca exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:29	239494
Arsenic	NELAP	0.0010		**0.0037**	mg/L	5	05/27/2025 21:42	239494
Lithium	*	0.0030		**0.0073**	mg/L	5	05/27/2025 21:42	239494
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:29	239494
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 19:29	239494
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2025 17:44	239492
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 05/27/2025 11:57

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	05/27/2025 11:57	R365853
Depth to water	*	-5.00		**7.98**	ft	1	05/27/2025 11:57	R365853
Depth to water from measuring point	*	0		**10.64**	ft	1	05/27/2025 11:57	R365853
Elevation of groundwater surface	*	0		**528.38**	ft	1	05/27/2025 11:57	R365853
Measuring Point Elevation	*	0		**539.02**	ft	1	05/27/2025 11:57	R365853
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	05/27/2025 11:57	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.6**	NTU	1	05/27/2025 11:57	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.4**	°F	1	05/27/2025 11:57	R365853
SW-846 9040B								
pH, Field	*	1.00		**7.14**		1	05/27/2025 11:57	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**770**	µmhos/cm @25C	1	05/27/2025 11:57	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**652**	mg/L	1	06/03/2025 6:58	R366064
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**0.55**	mg/L	10	05/28/2025 10:27	R365685
Chloride	NELAP	5.00		**81.4**	mg/L	10	05/28/2025 10:27	R365685
Sulfate	NELAP	10.0		**ND**	mg/L	10	05/28/2025 10:27	R365685
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.137**	mg/L	1	05/29/2025 14:54	239684
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 14:54	239684
Boron	NELAP	0.0200		**0.393**	mg/L	1	05/29/2025 14:54	239684
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 14:54	239684
Calcium	NELAP	0.100		**58.4**	mg/L	1	05/29/2025 14:54	239684
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 14:54	239684
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 14:54	239684
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 14:54	239684
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 14:54	239684
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 15:19	239684
Arsenic	NELAP	0.0010		**0.0289**	mg/L	5	05/28/2025 15:19	239684
Lithium	*	0.0030		**0.0106**	mg/L	5	05/28/2025 15:19	239684
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 15:19	239684
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 15:19	239684
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/29/2025 15:37	239734
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 05/21/2025 11:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	05/21/2025 11:12	R365853
Depth to water	*	-5.00		**1.11**	ft	1	05/21/2025 11:12	R365853
Depth to water from measuring point	*	0		**4.01**	ft	1	05/21/2025 11:12	R365853
Elevation of groundwater surface	*	0		**533.19**	ft	1	05/21/2025 11:12	R365853
Measuring Point Elevation	*	0		**537.20**	ft	1	05/21/2025 11:12	R365853
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	05/21/2025 11:12	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**37**	NTU	1	05/21/2025 11:12	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.3**	°F	1	05/21/2025 11:12	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.78**		1	05/21/2025 11:12	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**876**	µmhos/cm @25C	1	05/21/2025 11:12	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	100		**580**	mg/L	5	05/27/2025 16:00	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/22/2025 13:52	R365418
Chloride	NELAP	5.00		**22.6**	mg/L	10	05/22/2025 13:52	R365418
Sulfate	NELAP	10.0		**ND**	mg/L	10	05/22/2025 13:52	R365418
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.415**	mg/L	1	05/29/2025 8:53	239494
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 8:53	239494
Boron	NELAP	0.0200		**0.963**	mg/L	1	05/29/2025 8:53	239494
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 8:53	239494
Calcium	NELAP	0.100	B	**97.7**	mg/L	1	05/29/2025 8:53	239494
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:53	239494
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:53	239494
Lead	NELAP	0.0075		**0.132**	mg/L	1	05/29/2025 8:53	239494
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 8:53	239494
Sample result for Ca exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:35	239494
Arsenic	NELAP	0.0010		**0.0446**	mg/L	5	05/27/2025 21:48	239494
Lithium	*	0.0030		**0.0072**	mg/L	5	05/27/2025 21:48	239494
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:35	239494
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 19:35	239494
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2025 17:47	239492
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-010
Client Sample ID: AP-9
Matrix: GROUNDWATER
Collection Date: 05/27/2025 10:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.70**	ft	1	05/27/2025 10:24	R365853
Depth to water	*	-5.00		**9.39**	ft	1	05/27/2025 10:24	R365853
Depth to water from measuring point	*	0		**12.49**	ft	1	05/27/2025 10:24	R365853
Elevation of groundwater surface	*	0		**527.81**	ft	1	05/27/2025 10:24	R365853
Measuring Point Elevation	*	0		**540.30**	ft	1	05/27/2025 10:24	R365853
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	05/27/2025 10:24	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**45**	NTU	1	05/27/2025 10:24	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.6**	°F	1	05/27/2025 10:24	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.79**		1	05/27/2025 10:24	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**963**	µmhos/cm @25C	1	05/27/2025 10:24	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	33		**681**	mg/L	1.67	06/03/2025 6:58	R366064
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/28/2025 10:38	R365685
Chloride	NELAP	5.00		**27.0**	mg/L	10	05/28/2025 10:38	R365685
Sulfate	NELAP	10.0		**17.9**	mg/L	10	05/28/2025 10:38	R365685
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.322**	mg/L	1	05/29/2025 14:28	239684
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 14:28	239684
Boron	NELAP	0.0200		**0.0887**	mg/L	1	05/29/2025 14:28	239684
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 14:28	239684
Calcium	NELAP	0.100	S	**99.4**	mg/L	1	05/29/2025 14:28	239684
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 14:28	239684
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 14:28	239684
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 14:28	239684
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 14:28	239684
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 15:25	239684
Arsenic	NELAP	0.0010		**0.0014**	mg/L	5	05/28/2025 15:25	239684
Lithium	*	0.0030		**0.0064**	mg/L	5	05/28/2025 15:25	239684
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 15:25	239684
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 15:25	239684
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/29/2025 15:39	239734
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-011
Client Sample ID: AP-10
Matrix: GROUNDWATER
Collection Date: 05/21/2025 12:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**499.43**	ft	1	05/21/2025 12:04	R365853
Depth to water	*	-5.00		**0.82**	ft	1	05/21/2025 12:04	R365853
Depth to water from measuring point	*	0		**3.92**	ft	1	05/21/2025 12:04	R365853
Elevation of groundwater surface	*	0		**533.58**	ft	1	05/21/2025 12:04	R365853
Measuring Point Elevation	*	0		**537.50**	ft	1	05/21/2025 12:04	R365853
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	05/21/2025 12:04	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**140**	NTU	1	05/21/2025 12:04	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.2**	°F	1	05/21/2025 12:04	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.63**		1	05/21/2025 12:04	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1100**	µmhos/cm @25C	1	05/21/2025 12:04	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	100		**820**	mg/L	5	05/27/2025 16:00	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/22/2025 14:42	R365418
Chloride	NELAP	5.00		**24.6**	mg/L	10	05/22/2025 14:42	R365418
Sulfate	NELAP	10.0		**94.9**	mg/L	10	05/22/2025 14:42	R365418
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.765**	mg/L	1	05/29/2025 8:54	239494
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 8:54	239494
Boron	NELAP	0.0200		**4.50**	mg/L	1	05/29/2025 8:54	239494
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 8:54	239494
Calcium	NELAP	0.100	B	**143**	mg/L	1	05/29/2025 8:54	239494
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:54	239494
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 8:54	239494
Lead	NELAP	0.0075		**0.0621**	mg/L	1	05/29/2025 8:54	239494
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 8:54	239494
Sample result for Ca exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 20:48	239494
Arsenic	NELAP	0.0010		**0.0015**	mg/L	5	05/27/2025 22:33	239494
Lithium	*	0.0030		**0.0107**	mg/L	5	05/27/2025 22:33	239494
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 20:48	239494
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 20:48	239494
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2025 17:49	239492
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-012
Client Sample ID: AP-11
Matrix: GROUNDWATER
Collection Date: 05/22/2025 10:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.15**	ft	1	05/22/2025 10:55	R365853
Depth to water	*	-5.00		**9.23**	ft	1	05/22/2025 10:55	R365853
Depth to water from measuring point	*	0		**12.03**	ft	1	05/22/2025 10:55	R365853
Elevation of groundwater surface	*	0		**526.07**	ft	1	05/22/2025 10:55	R365853
Measuring Point Elevation	*	0		**538.10**	ft	1	05/22/2025 10:55	R365853
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	05/22/2025 10:55	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.9**	NTU	1	05/22/2025 10:55	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.5**	°F	1	05/22/2025 10:55	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.53**		1	05/22/2025 10:55	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1110**	µmhos/cm @25C	1	05/22/2025 10:55	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**784**	mg/L	1	05/27/2025 16:00	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/23/2025 11:34	R365491
Chloride	NELAP	5.00		**129**	mg/L	10	05/23/2025 11:34	R365491
Sulfate	NELAP	10.0		**84.6**	mg/L	10	05/23/2025 11:34	R365491
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.140**	mg/L	1	05/29/2025 15:54	239543
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 15:54	239543
Boron	NELAP	0.0200		**0.273**	mg/L	1	05/29/2025 15:54	239543
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 15:54	239543
Calcium	NELAP	0.100		**160**	mg/L	1	05/29/2025 15:54	239543
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:54	239543
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:54	239543
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 15:54	239543
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 15:54	239543
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 11:30	239543
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 11:30	239543
Lithium	*	0.0030		**0.0034**	mg/L	5	05/27/2025 11:30	239543
Selenium	NELAP	0.0010		**0.0049**	mg/L	5	05/27/2025 11:30	239543
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/23/2025 13:35	239543
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/23/2025 14:29	239545
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-013
Client Sample ID: AP-12
Matrix: GROUNDWATER
Collection Date: 05/22/2025 11:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**510.30**	ft	1	05/22/2025 11:38	R365853
Depth to water	*	-5.00		**12.26**	ft	1	05/22/2025 11:38	R365853
Depth to water from measuring point	*	0		**15.16**	ft	1	05/22/2025 11:38	R365853
Elevation of groundwater surface	*	0		**525.54**	ft	1	05/22/2025 11:38	R365853
Measuring Point Elevation	*	0		**540.70**	ft	1	05/22/2025 11:38	R365853
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	05/22/2025 11:38	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**98**	NTU	1	05/22/2025 11:38	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.2**	°F	1	05/22/2025 11:38	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.50**		1	05/22/2025 11:38	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1330**	µmhos/cm @25C	1	05/22/2025 11:38	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	100		**1190**	mg/L	5	05/27/2025 16:01	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/23/2025 12:12	R365491
Chloride	NELAP	5.00		**113**	mg/L	10	05/23/2025 12:12	R365491
Sulfate	NELAP	10.0		**416**	mg/L	10	05/23/2025 12:12	R365491
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0575**	mg/L	1	05/29/2025 15:55	239543
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 15:55	239543
Boron	NELAP	0.0200		**0.0205**	mg/L	1	05/29/2025 15:55	239543
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 15:55	239543
Calcium	NELAP	0.100		**204**	mg/L	1	05/29/2025 15:55	239543
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:55	239543
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:55	239543
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 15:55	239543
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 15:55	239543
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 11:36	239543
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 11:36	239543
Lithium	*	0.0030		**0.0056**	mg/L	5	05/27/2025 11:36	239543
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 11:36	239543
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/23/2025 13:41	239543
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/23/2025 14:31	239545
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-014
Client Sample ID: AP-13
Matrix: GROUNDWATER
Collection Date: 05/22/2025 13:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.00**	ft	1	05/22/2025 13:07	R365853
Depth to water	*	-5.00		**11.33**	ft	1	05/22/2025 13:07	R365853
Depth to water from measuring point	*	0		**14.73**	ft	1	05/22/2025 13:07	R365853
Elevation of groundwater surface	*	0		**527.27**	ft	1	05/22/2025 13:07	R365853
Measuring Point Elevation	*	0		**542.00**	ft	1	05/22/2025 13:07	R365853
Measuring Point Height Above Land Surface	*	0		**3.40**	ft	1	05/22/2025 13:07	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**25**	NTU	1	05/22/2025 13:07	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.6**	°F	1	05/22/2025 13:07	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.68**		1	05/22/2025 13:07	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**755**	µmhos/cm @25C	1	05/22/2025 13:07	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	50		**595**	mg/L	2.5	05/27/2025 16:01	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/23/2025 13:03	R365491
Chloride	NELAP	5.00		**24.7**	mg/L	10	05/23/2025 13:03	R365491
Sulfate	NELAP	10.0		**124**	mg/L	10	05/23/2025 13:03	R365491
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.127**	mg/L	1	05/29/2025 15:56	239543
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 15:56	239543
Boron	NELAP	0.0200		**0.0276**	mg/L	1	05/29/2025 15:56	239543
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 15:56	239543
Calcium	NELAP	0.100		**114**	mg/L	1	05/29/2025 15:56	239543
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:56	239543
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:56	239543
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 15:56	239543
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 15:56	239543
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 12:09	239543
Arsenic	NELAP	0.0010		**0.0032**	mg/L	5	05/27/2025 12:09	239543
Lithium	*	0.0030		**0.0107**	mg/L	5	05/27/2025 12:09	239543
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 12:09	239543
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/23/2025 13:47	239543
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/23/2025 14:38	239545
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-015
Client Sample ID: AP-14
Matrix: GROUNDWATER
Collection Date: 05/27/2025 13:44

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**508.40**	ft	1	05/27/2025 13:44	R365853
Depth to water	*	-5.00		**-0.08**	ft	1	05/27/2025 13:44	R365853
Depth to water from measuring point	*	0		**2.72**	ft	1	05/27/2025 13:44	R365853
Elevation of groundwater surface	*	0		**536.88**	ft	1	05/27/2025 13:44	R365853
Measuring Point Elevation	*	0		**539.60**	ft	1	05/27/2025 13:44	R365853
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	05/27/2025 13:44	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.2**	NTU	1	05/27/2025 13:44	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.8**	°F	1	05/27/2025 13:44	R365853
SW-846 9040B								
pH, Field	*	1.00		**7.02**		1	05/27/2025 13:44	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2020**	µmhos/cm @25C	1	05/27/2025 13:44	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	33		**1620**	mg/L	1.67	06/03/2025 6:58	R366064
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/28/2025 11:25	R365685
Chloride	NELAP	5.00		**105**	mg/L	10	05/28/2025 11:25	R365685
Sulfate	NELAP	10.0		**909**	mg/L	10	05/28/2025 11:25	R365685
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0384**	mg/L	1	05/29/2025 14:55	239684
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 14:55	239684
Boron	NELAP	0.200		**21.7**	mg/L	10	06/02/2025 22:21	239684
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 14:55	239684
Calcium	NELAP	0.100		**276**	mg/L	1	05/29/2025 14:55	239684
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 14:55	239684
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 14:55	239684
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 14:55	239684
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 14:55	239684
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:08	239684
Arsenic	NELAP	0.0010		**0.0017**	mg/L	5	05/28/2025 16:08	239684
Lithium	*	0.0030		**0.0073**	mg/L	5	05/28/2025 16:08	239684
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:08	239684
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 16:08	239684
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/29/2025 15:46	239734
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-016
Client Sample ID: T-1
Matrix: GROUNDWATER
Collection Date: 05/22/2025 13:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**512.70**	ft	1	05/22/2025 13:50	R365853
Depth to water	*	-5.00		**10.53**	ft	1	05/22/2025 13:50	R365853
Depth to water from measuring point	*	0		**10.86**	ft	1	05/22/2025 13:50	R365853
Elevation of groundwater surface	*	0		**524.79**	ft	1	05/22/2025 13:50	R365853
Measuring Point Elevation	*	0		**535.65**	ft	1	05/22/2025 13:50	R365853
Measuring Point Height Above Land Surface	*	0		**0.33**	ft	1	05/22/2025 13:50	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**24**	NTU	1	05/22/2025 13:50	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.1**	°F	1	05/22/2025 13:50	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.58**		1	05/22/2025 13:50	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1280**	µmhos/cm @25C	1	05/22/2025 13:50	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**962**	mg/L	1	05/27/2025 16:01	R365834
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/23/2025 13:16	R365491
Chloride	NELAP	5.00		**232**	mg/L	10	05/23/2025 13:16	R365491
Sulfate	NELAP	10.0		**148**	mg/L	10	05/23/2025 13:16	R365491
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0586**	mg/L	1	05/29/2025 15:56	239543
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 15:56	239543
Boron	NELAP	0.0200		**0.163**	mg/L	1	05/29/2025 15:56	239543
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 15:56	239543
Calcium	NELAP	0.100		**165**	mg/L	1	05/29/2025 15:56	239543
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:56	239543
Cobalt	NELAP	0.0050		**0.0055**	mg/L	1	05/29/2025 15:56	239543
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 15:56	239543
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 15:56	239543
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 12:14	239543
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 12:14	239543
Lithium	*	0.0030		**0.0142**	mg/L	5	05/27/2025 12:14	239543
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 12:14	239543
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/23/2025 14:17	239543
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/23/2025 14:40	239545
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-017
Client Sample ID: T-2
Matrix: GROUNDWATER
Collection Date: 05/22/2025 12:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.18**	ft	1	05/22/2025 12:19	R365853
Depth to water	*	-5.00		**21.43**	ft	1	05/22/2025 12:19	R365853
Depth to water from measuring point	*	0		**23.83**	ft	1	05/22/2025 12:19	R365853
Elevation of groundwater surface	*	0		**525.79**	ft	1	05/22/2025 12:19	R365853
Measuring Point Elevation	*	0		**549.62**	ft	1	05/22/2025 12:19	R365853
Measuring Point Height Above Land Surface	*	0		**2.40**	ft	1	05/22/2025 12:19	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**17**	NTU	1	05/22/2025 12:19	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.1**	°F	1	05/22/2025 12:19	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.55**		1	05/22/2025 12:19	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1740**	µmhos/cm @25C	1	05/22/2025 12:19	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	50		**1550**	mg/L	2.5	05/27/2025 16:01	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/23/2025 13:28	R365491
Chloride	NELAP	5.00		**522**	mg/L	10	05/23/2025 13:28	R365491
Sulfate	NELAP	10.0		**143**	mg/L	10	05/23/2025 13:28	R365491
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.226**	mg/L	1	05/29/2025 16:02	239543
Beryllium	NELAP	0.0005		**0.0005**	mg/L	1	05/29/2025 16:02	239543
Boron	NELAP	0.0200		**0.0507**	mg/L	1	05/29/2025 16:02	239543
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 16:02	239543
Calcium	NELAP	0.100		**231**	mg/L	1	05/29/2025 16:02	239543
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 16:02	239543
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/03/2025 10:13	239543
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 16:02	239543
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 16:02	239543
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 12:20	239543
Arsenic	NELAP	0.0010		**0.0056**	mg/L	5	05/27/2025 12:20	239543
Lithium	*	0.0030		**0.0320**	mg/L	5	05/27/2025 12:20	239543
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 12:20	239543
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/23/2025 14:23	239543
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/23/2025 14:43	239545
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-018
Client Sample ID: T-4
Matrix: GROUNDWATER
Collection Date: 05/27/2025 11:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**521.52**	ft	1	05/27/2025 11:04	R365853
Depth to water	*	-5.00		**13.26**	ft	1	05/27/2025 11:04	R365853
Depth to water from measuring point	*	0		**15.64**	ft	1	05/27/2025 11:04	R365853
Elevation of groundwater surface	*	0		**533.30**	ft	1	05/27/2025 11:04	R365853
Measuring Point Elevation	*	0		**548.94**	ft	1	05/27/2025 11:04	R365853
Measuring Point Height Above Land Surface	*	0		**2.38**	ft	1	05/27/2025 11:04	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**23**	NTU	1	05/27/2025 11:04	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.2**	°F	1	05/27/2025 11:04	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.63**		1	05/27/2025 11:04	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**641**	µmhos/cm @25C	1	05/27/2025 11:04	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	33		**478**	mg/L	1.67	06/03/2025 6:59	R366064
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/28/2025 11:37	R365685
Chloride	NELAP	5.00		**ND**	mg/L	10	05/28/2025 11:37	R365685
Sulfate	NELAP	10.0		**101**	mg/L	10	05/28/2025 11:37	R365685
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0345**	mg/L	1	05/29/2025 14:56	239684
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 14:56	239684
Boron	NELAP	0.0200		**0.0577**	mg/L	1	05/29/2025 14:56	239684
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 14:56	239684
Calcium	NELAP	0.100		**72.8**	mg/L	1	05/29/2025 14:56	239684
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 14:56	239684
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 14:56	239684
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 14:56	239684
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 14:56	239684
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:14	239684
Arsenic	NELAP	0.0010		**0.0039**	mg/L	5	05/28/2025 16:14	239684
Lithium	*	0.0030		**0.0158**	mg/L	5	05/28/2025 16:14	239684
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:14	239684
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 16:14	239684
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/29/2025 15:48	239734
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-019
Client Sample ID: T-5
Matrix: GROUNDWATER
Collection Date: 05/27/2025 13:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**518.32**	ft	1	05/27/2025 13:23	R365853
Depth to water	*	-5.00		**6.06**	ft	1	05/27/2025 13:23	R365853
Depth to water from measuring point	*	0		**8.57**	ft	1	05/27/2025 13:23	R365853
Elevation of groundwater surface	*	0		**532.09**	ft	1	05/27/2025 13:23	R365853
Measuring Point Elevation	*	0		**540.66**	ft	1	05/27/2025 13:23	R365853
Measuring Point Height Above Land Surface	*	0		**2.51**	ft	1	05/27/2025 13:23	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.9**	NTU	1	05/27/2025 13:23	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.7**	°F	1	05/27/2025 13:23	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.77**		1	05/27/2025 13:23	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**536**	µmhos/cm @25C	1	05/27/2025 13:23	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**428**	mg/L	1	06/03/2025 6:59	R366064
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/28/2025 11:48	R365685
Chloride	NELAP	5.00		**ND**	mg/L	10	05/28/2025 11:48	R365685
Sulfate	NELAP	10.0		**35.4**	mg/L	10	05/28/2025 11:48	R365685
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0567**	mg/L	1	05/29/2025 15:17	239684
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 15:17	239684
Boron	NELAP	0.0200		**0.0671**	mg/L	1	05/29/2025 15:17	239684
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 15:17	239684
Calcium	NELAP	0.100		**72.4**	mg/L	1	05/29/2025 15:17	239684
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:17	239684
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:17	239684
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 15:17	239684
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 15:17	239684
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:20	239684
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:20	239684
Lithium	*	0.0030		**0.0089**	mg/L	5	05/28/2025 16:20	239684
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:20	239684
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 16:20	239684
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/29/2025 15:55	239734
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-020
Client Sample ID: T-6
Matrix: GROUNDWATER
Collection Date: 05/27/2025 12:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**494.70**	ft	1	05/27/2025 12:38	R365853
Depth to water	*	-5.00		**6.47**	ft	1	05/27/2025 12:38	R365853
Depth to water from measuring point	*	0		**8.83**	ft	1	05/27/2025 12:38	R365853
Elevation of groundwater surface	*	0		**529.49**	ft	1	05/27/2025 12:38	R365853
Measuring Point Elevation	*	0		**538.32**	ft	1	05/27/2025 12:38	R365853
Measuring Point Height Above Land Surface	*	0		**2.36**	ft	1	05/27/2025 12:38	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.8**	NTU	1	05/27/2025 12:38	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.8**	°F	1	05/27/2025 12:38	R365853
SW-846 9040B								
pH, Field	*	1.00		**7.00**		1	05/27/2025 12:38	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**860**	µmhos/cm @25C	1	05/27/2025 12:38	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	50		**570**	mg/L	2.5	06/03/2025 6:59	R366064
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/28/2025 12:23	R365685
Chloride	NELAP	5.00		**20.8**	mg/L	10	05/28/2025 12:23	R365685
Sulfate	NELAP	10.0		**ND**	mg/L	10	05/28/2025 12:23	R365685
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.279**	mg/L	1	05/29/2025 15:18	239684
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 15:18	239684
Boron	NELAP	0.0200		**0.200**	mg/L	1	05/29/2025 15:18	239684
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 15:18	239684
Calcium	NELAP	0.100		**92.2**	mg/L	1	05/29/2025 15:18	239684
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:18	239684
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 15:18	239684
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 15:18	239684
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 15:18	239684
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:26	239684
Arsenic	NELAP	0.0010		**0.0195**	mg/L	5	05/28/2025 16:26	239684
Lithium	*	0.0030		**0.0138**	mg/L	5	05/28/2025 16:26	239684
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 16:26	239684
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 16:26	239684
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/29/2025 15:57	239734
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-021
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 05/22/2025 10:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	05/22/2025 10:24	R365853
Depth to water	*	-5.00		**11.02**	ft	1	05/22/2025 10:24	R365853
Depth to water from measuring point	*	0		**13.77**	ft	1	05/22/2025 10:24	R365853
Elevation of groundwater surface	*	0		**541.83**	ft	1	05/22/2025 10:24	R365853
Measuring Point Elevation	*	0		**555.60**	ft	1	05/22/2025 10:24	R365853
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	05/22/2025 10:24	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.6**	NTU	1	05/22/2025 10:24	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.4**	°F	1	05/22/2025 10:24	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.96**		1	05/22/2025 10:24	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1480**	µmhos/cm @25C	1	05/22/2025 10:24	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1190**	mg/L	1	05/27/2025 16:01	R365834
Stability in final weights could not be achieved after multiple drying, cooling, and weighing cycles.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/23/2025 14:06	R365491
Chloride	NELAP	5.00		**36.8**	mg/L	10	05/23/2025 14:06	R365491
Sulfate	NELAP	10.0		**388**	mg/L	10	05/23/2025 14:06	R365491
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0790**	mg/L	1	05/29/2025 16:03	239543
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	05/29/2025 16:03	239543
Boron	NELAP	0.0200		**8.75**	mg/L	1	05/29/2025 16:03	239543
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 16:03	239543
Calcium	NELAP	0.100	S	**203**	mg/L	1	05/29/2025 16:03	239543
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 16:03	239543
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 16:03	239543
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	05/29/2025 16:03	239543
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 16:03	239543
Matrix spike control limits are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 12:41	239543
Arsenic	NELAP	0.0010		**0.0016**	mg/L	5	05/27/2025 12:41	239543
Lithium	*	0.0030		**0.0101**	mg/L	5	05/27/2025 12:41	239543
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/27/2025 12:41	239543
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/23/2025 14:48	239543
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/23/2025 14:45	239545
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Client: City Water, Light & Power
Work Order: 25051158
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Jun-25
Lab ID: 25051158-022
Client Sample ID: G120
Matrix: GROUNDWATER
Collection Date: 05/21/2025 13:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	05/21/2025 13:58	R365853
Depth to water	*	-5.00		**16.18**	ft	1	05/21/2025 13:58	R365853
Depth to water from measuring point	*	0		**16.18**	ft	1	05/21/2025 13:58	R365853
Elevation of groundwater surface	*	0		**536.92**	ft	1	05/21/2025 13:58	R365853
Measuring Point Elevation	*	0		**553.10**	ft	1	05/21/2025 13:58	R365853
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	05/21/2025 13:58	R365853
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**14**	NTU	1	05/21/2025 13:58	R365853
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.7**	°F	1	05/21/2025 13:58	R365853
SW-846 9040B								
pH, Field	*	1.00		**6.57**		1	05/21/2025 13:58	R365853
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1950**	µmhos/cm @25C	1	05/21/2025 13:58	R365853
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	200		**1340**	mg/L	10	05/27/2025 15:59	R365834
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	05/22/2025 14:55	R365418
Chloride	NELAP	5.00		**35.5**	mg/L	10	05/22/2025 14:55	R365418
Sulfate	NELAP	10.0		**562**	mg/L	10	05/22/2025 14:55	R365418
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.842**	mg/L	1	05/29/2025 9:00	239494
Beryllium	NELAP	0.0005		**0.0009**	mg/L	1	05/29/2025 9:00	239494
Boron	NELAP	0.0200		**8.02**	mg/L	1	05/29/2025 9:00	239494
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	05/29/2025 9:00	239494
Calcium	NELAP	0.100	B	**256**	mg/L	1	05/29/2025 9:00	239494
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	05/29/2025 9:00	239494
Cobalt	NELAP	0.0050		**0.0058**	mg/L	1	05/29/2025 9:00	239494
Lead	NELAP	0.0075		**0.0301**	mg/L	1	05/29/2025 9:00	239494
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	05/29/2025 9:00	239494
Sample result for Ca exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:41	239494
Arsenic	NELAP	0.0010		**0.0114**	mg/L	5	05/27/2025 22:38	239494
Lithium	*	0.0030		**0.0084**	mg/L	5	05/27/2025 22:38	239494
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	05/28/2025 19:41	239494
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	05/28/2025 19:41	239494
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	05/22/2025 17:51	239492
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317
Radium-228	*	0		**See Attached**	pci/L	1	06/25/2025 0:00	R367317

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25051158
Report Date: 27-Jun-25

Carrier: Daniel Crump
Received By: JMD

Completed by: Laura E Henson
On: 21-May-25

Reviewed by: Elizabeth A. Hurley
On: 28-May-25

Pages to follow: Chain of custody 7 Extra pages included 53

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 5.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #101358. - EK/lhenson - 5/21/2025 5:22:34 PM

Additional nitric acid (103505) was needed in AP5, AP-10 and G120 upon arrival at the laboratory. - EK/lhenson - 5/21/2025 5:22:40 PM

Cooler #2 = 5.3C, Cooler #3 = 8.3C (LTG#9). EK/LH 5/21/25

Samples were received on 5/22/25 at 15:45 on ice [temp4.5C, 7.1C - LTG#9]. pH# 101358. Additional nitric acid (103505) was needed in AW-1 upon arrival at the laboratory. -JD/ lhenson - 5/22/2025 4:29:35 PM

Samples were received on 5/27/25 at 1535 on ice [16.3C - LTG#5]. pH strip #101358. - JD/amberdilallo - 5/27/2025 4:03:59 PM

Samples were received on 5/28/25 at 13:50 on ice [5.5C - LTG#9]. pH# 101358. Addional nitric acid (103505) was needed in AP-4 upon arrival at the laboratory. - JD/lhenson - 5/28/2025 4:38:37 PM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25051158

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

8.3

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 5.9 5.3 °C 9
Preserved in: ☑ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: Add HNO3 (103505) 1 liter bottles for 1 AP5, 2 AP-10, and 2 G120. PC 5/21/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Daniel Crum D

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25051158 001	RW-3	5-21-25 1020	Groundwater	1	2								✔	✔	✔	✔	✔	✔
002	AP-1		Groundwater	1	2								✔	✔	✔	✔	✔	✔
003	AP-2	5-21-25 1333	Groundwater	1	2								✔	✔	✔	✔	✔	✔
004	AP-3	5-21-25 1256	Groundwater	1	2								✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	2								✔	✔	✔	✔	✔	✔
006	AP-5	5/21/25 1031	Groundwater	1	2								✔	✔	✔	✔	✔	✔
007	AP-6	5-21-25 1416	Groundwater	1	2								✔	✔	✔	✔	✔	✔
008	AP-7		Groundwater	1	2								✔	✔	✔	✔	✔	✔
009	AP-8	5-21-25 1112	Groundwater	1	2								✔	✔	✔	✔	✔	✔
010	AP-9		Groundwater	1	2								✔	✔	✔	✔	✔	✔
011	AP-10	5-21-25 1204	Groundwater	1	2								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	5-21 / 1605	Cinley Kassabaum	5/21/25 @ 1605

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25051158

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 5.9/5.3 °C
Preserved in: [x] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Daniel Crump

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25051158 012	AP-11		Groundwater	1	3								✓	✓	✓	✓	✓	✓
013	AP-12		Groundwater	1	2								✓	✓	✓	✓	✓	✓
014	AP-13		Groundwater	1	2								✓	✓	✓	✓	✓	✓
015	AP-14		Groundwater	1	2								✓	✓	✓	✓	✓	✓
016	T-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
017	T-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
018	T-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓
019	T-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓
020	T-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓
* 021	AW-1		Groundwater	1	3								✓	✓	✓	✓	✓	✓
* 022	9120	5/21/25 1358	Groundwater	1	3								✓	✓	✓	✓	✓	✓

HNO3 pH <2 5/15/25

Relinquished By	Date/Time	Received By	Date/Time
D-180	5-21/1605	Emily Kessakoski	5/21/25 @ 1605

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25051158

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

7.1

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 4.5 °C 9

Preserved in: [ ] LAB [X] FIELD

FOR LAB USE ONLY

LAB NOTES: PH 101358 98658

Added HNO3 1/2 ~~AWTE~~ JD 5/22/25 1/2 (103505) - AW-1 JD 5/22/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No

Are these samples known to be hazardous? [ ] Yes [✓] No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:

*elevations, pH, conductivity, temperature

**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

Quarterly monitoring

PROJECT NAME/NUMBER

Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED

[✓] Standard [ ] 1-2 Day (100% Surcharge)

[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED													
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity								
25051158 001	RW-3		Groundwater	1	~~2~~ 3								✓	✓	✓	✓	✓	✓								
002	AP-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
005	AP-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
011	AP-10	~~5-21-25~~ 5-22-25	Groundwater	1	2	Y							✓	✓	✓	✓	✓	✓								

Relinquished By	Date/Time	Received By	Date/Time
DJS	5-22/1545	[signature]	5/22/25 1548

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25051158

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity								
					5/13/25																				
25051158 012	AP-11	5-22-25 1055	Groundwater	1	3								✓	✓	✓	✓	✓	✓								
013	AP-12	5-22-25 1130	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
014	AP-13	5-22-25 1307	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
015	AP-14		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
016	T-1	5-22-25 1350	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
017	T-2	5-22-25 1219	Groundwater	1	2								✓	✓	✓	✓	✓	✓								
018	T-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
019	T-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
020	T-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓								
** 021	AW-1	5/22/25 1024	Groundwater	1	3								✓	✓	✓	✓	✓	✓								
** 022	9120		Groundwater	1	3								✓	✓	✓	✓	✓	✓								

Relinquished By	Date/Time	Received By	Date/Time
DJS	5-22/1545		5/22/25 15:45

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25051158

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 16.3 °C 5
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: PH 101358
JD 5/27/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Brett Gillihan

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED													
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity									
25051158 001	RW-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
002	AP-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
005	AP-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
008	AP-7	5-27-25 1157	Groundwater	1	2								✓	✓	✓	✓	✓	✓									
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓									
010	AP-9	5-27-25 1024	Groundwater	1	2								✓	✓	✓	✓	✓	✓									
011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓									

Relinquished By	Date/Time	Received By	Date/Time
	5-27/1535		5/27/25 15:35

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25051158

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Brett Gillihan

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
					5/15/25													
25051158 012	AP-11		Groundwater	1	3								✓	✓	✓	✓	✓	✓
013	AP-12		Groundwater	1	2								✓	✓	✓	✓	✓	✓
014	AP-13		Groundwater	1	2								✓	✓	✓	✓	✓	✓
015	AP-14	5-27-25 1344	Groundwater	1	2								✓	✓	✓	✓	✓	✓
016	T-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓
017	T-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
018	T-4	5-27-25 1104	Groundwater	1	2								✓	✓	✓	✓	✓	✓
019	T-5	5-27-25 1325	Groundwater	1	2								✓	✓	✓	✓	✓	✓
020	T-6	5-27-25 1238	Groundwater	1	2								✓	✓	✓	✓	✓	✓
** 021	AW-1		Groundwater	1	3								✓	✓	✓	✓	✓	✓
** 022	9120		Groundwater	1	3								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	5-27-25 1535		5/27/25 15:35

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25051158

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 5.5 °C 9
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: Added HNO3 (103505) 2/2 AP-4 Lot# PH101358 JD 2/28/25

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME: Justin Cdp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	CLP 504 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25051158 001	RW-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
002	AP-1	5/28/25 956	Groundwater	1	2								✓	✓	✓	✓	✓	✓
003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓
004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓
005	AP-4	5/28/25 1131	Groundwater	1	2								✓	✓	✓	✓	✓	✓
006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓
007	AP-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓
008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓
009	AP-8		Groundwater	1	2								✓	✓	✓	✓	✓	✓
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓
011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓

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Relinquished By	Date/Time	Received By	Date/Time
	5-28/1350		5/28/25 1350

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Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: RW-3
Sample ID: 001
Date (s): 5/21/2025

Field Team Members

Name: Danny Crump Affiliation: TekLab, Inc.
Name: Brett Gillihan Affiliation: TekLab, Inc.

Weather Conditions

Temp: 57 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 10:00
Static Water Level: 9.27 feet below TOC
Total Depth: 44.01 feet below TOC
Water Column: 34.74 feet

Purging Activities

Purged By: DC Purge Date: 5/21/2025
Purge Method: Bladder Pump Well Diameter: 2"
Purge Volume Calculation (L): 34.74 ft. x 0.022 = 0.76 L x 3 Vol. = 2.28 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:00	0.0	300	purge start time						
10:08	2.4	↓	7.04	649.70	12.60	0.59	-99.00	8.49	
10:11	3.3		7.04	649.10	12.61	0.55	-103.90	6.68	
10:14	4.2		7.04	648.50	12.58	0.51	-108.10	4.91	
10:17	5.1		7.03	649.20	12.59	0.48	-111.30	5.05	
10:20	6.0		7.03	649.80	12.58	0.45	-114.40	5.04	

Sampling Activities

Sampled By: DC Sample Date/Time: 5/21/2025 10:20
Sample Method: Low Flow Sample Equipment: Bladder Pump
Sample Parameters: 7.03 pH 649.80 Spec. Cond. 12.58 Temp
Field Filtered: No Filter Type:
Water Level: 9.27 feet below TOC Drawdown: 0.00 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/21/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: AP-1
Sample ID: 002
Date (s): 5/28/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 59 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☐ None ☑ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/28/2025 9:19
Static Water Level: 9.79 feet below TOC
Total Depth: 31.08 feet below TOC
Water Column: 21.29 feet

Purging Activities

Purged By: JC Purge Date: 5/28/2025
Purge Method: Bladder Pump Well Diameter: 2"
Purge Volume Calculation (L): 21.29 ft. x 0.022 = 0.47 L x 3 Vol. = 1.41 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 8.00 L
Physical appearance of purge water: Clear Odor: Slight Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:20	0.0	222	purge start time						
9:26	1.3	↓	6.57	1,846.80	14.01	6.18	86.00	50.33	
9:29	2.0		6.44	1,922.20	14.03	5.37	88.70	39.69	
9:32	2.7		6.40	1,969.40	14.06	4.80	89.00	36.83	
9:35	3.3		6.39	2,000.20	14.01	4.39	88.60	33.74	
9:38	4.0		6.39	2,046.10	14.01	4.06	88.30	26.01	
9:41	4.7		6.39	2,068.70	14.01	3.81	87.80	23.84	
9:44	5.3		6.40	2,082.70	14.08	3.59	87.30	23.90	
9:47	6.0		6.41	2,091.30	14.05	3.41	86.80	16.86	
9:50	6.7		6.41	2,094.80	14.03	3.26	86.40	13.60	
9:53	7.3		6.42	2,096.20	14.02	3.13	85.90	9.55	
9:56	8.0		6.42	2,095.90	14.02	3.01	85.40	9.71	

Sampling Activities

Sampled By: JC Sample Date/Time: 5/28/2025 9:56
Sample Method: Low Flow Sample Equipment: Bladder Pump
Sample Parameters: 6.42 pH 2,095.90 Spec. Cond. 14.02 Temp
Field Filtered: No Filter Type:
Water Level: 10.20 feet below TOC Drawdown: 0.41 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Justin Colp **Date:** 5/28/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-2
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	25051158	**Date (s):**	5/21/2025

Field Team Members

Name: Danny Crump Affiliation: TekLab, Inc.

Name: Brett Gillihan Affiliation: TekLab, Inc.

Weather Conditions

Temp: 61 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 13:07

Static Water Level: 7.79 feet below TOC

Total Depth: 21.33 feet below TOC

Water Column: 13.54 feet

Purging Activities

Purged By: DC Purge Date: 5/21/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 13.54 ft. x 0.022 = 0.3 L x 3 Vol. = 0.9 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:07	0.0	231	purge start time						
13:21	3.2	↓	6.45	1,177.50	13.41	0.38	8.80	70.62	
13:24	3.9		6.44	1,179.20	13.58	0.35	8.70	52.86	
13:27	4.6		6.44	1,184.60	13.87	0.32	8.80	40.66	
13:30	5.3		6.45	1,182.50	13.43	0.30	9.10	31.33	
13:33	6.0		6.45	1,180.90	13.58	0.29	9.20	24.47	

Sampling Activities

Sampled By: DC Sample Date/Time: 5/21/2025 13:33

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.45 pH 1,180.90 Spec. Cond. 13.58 Temp

Field Filtered: No Filter Type:

Water Level: 7.80 feet below TOC Drawdown: 0.01 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/21/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: AP-3
Sample ID: 004
Date (s): 5/21/2025

Field Team Members

Name: Danny Crump Affiliation: TekLab, Inc.
Name: Brett Gillihan Affiliation: TekLab, Inc.

Weather Conditions

Temp: 60 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 12:30
Static Water Level: 7.67 feet below TOC
Total Depth: 20.80 feet below TOC
Water Column: 13.13 feet

Purging Activities

Purged By: DC Purge Date: 5/21/2025
Purge Method: Bladder Pump Well Diameter: 2"
Purge Volume Calculation (L): 13.13 ft. x 0.022 = 0.29 L x 3 Vol. = 0.87 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:30	0.0	231	purge start time						
12:44	3.2	↓	6.53	1,119.40	13.56	0.31	-53.20	26.92	
12:47	3.9		6.52	1,118.10	13.50	0.28	-55.50	18.11	
12:50	4.6		6.52	1,123.10	13.61	0.26	-57.30	13.70	
12:53	5.3		6.52	1,126.10	13.47	0.25	-58.50	10.62	
12:56	6.0		6.53	1,126.40	13.25	0.23	-59.30	9.17	

Sampling Activities

Sampled By: DC Sample Date/Time: 5/21/2025 12:56
Sample Method: Low Flow Sample Equipment: Bladder Pump
Sample Parameters: 6.53 pH 1,126.40 Spec. Cond. 13.25 Temp
Field Filtered: No Filter Type:
Water Level: 7.85 feet below TOC Drawdown: 0.18 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/21/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-4
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	25051158	**Date (s):**	5/28/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 62 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/28/2025 10:54

Static Water Level: 10.38 feet below TOC

Total Depth: 60.41 feet below TOC

Water Column: 50.03 feet

Purging Activities

Purged By: JC Purge Date: 5/28/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 50.03 ft. x 0.022 = 1.1 L x 3 Vol. = 3.3 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.00 L

Physical appearance of purge water: Cloudy Odor: None Color: greyish

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:55	0.0	194	purge start time						
11:04	1.8	↓	6.73	964.00	15.95	4.59	68.80	140.86	
11:07	2.3		6.71	968.70	15.99	4.08	68.80	195.05	
11:10	2.9		6.70	972.90	15.97	3.70	68.40	212.04	
11:13	3.5		6.69	975.00	15.91	3.41	67.70	229.67	
11:16	4.1		6.69	976.10	15.99	3.17	66.70	232.48	
11:19	4.7		6.69	976.70	16.07	2.98	65.40	217.94	
11:22	5.3		6.69	977.50	16.13	2.82	64.00	212.96	
11:25	5.8		6.68	977.90	16.26	2.69	62.30	196.53	
11:28	6.4		6.69	978.90	16.35	2.58	60.60	168.32	
11:31	7.0		6.69	978.70	16.43	2.48	58.70	170.33	

Sampling Activities

Sampled By: JC Sample Date/Time: 5/28/2025 11:31

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.69 pH 978.70 Spec. Cond. 16.43 Temp

Field Filtered: No Filter Type:

Water Level: 10.53 feet below TOC Drawdown: 0.15 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Justin Colp **Date:** 5/28/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-5
Project Location:	Springfield, IL	**Sample ID:**	006
W.O. Number (s):	25051158	**Date (s):**	5/21/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 57 °F — Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 9:43

Static Water Level: 14.41 feet below TOC

Total Depth: 31.27 feet below TOC

Water Column: 16.86 feet

Purging Activities

Purged By: JC — Purge Date: 5/21/2025

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 16.86 ft. x 0.022 = 0.37 L x 3 Vol. = 1.11 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 8.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:47	0.0	182	purge start time						
10:19	5.8	↓	6.65	835.40	12.91	3.23	41.90	1.79	
10:22	6.4		6.65	834.90	12.90	3.15	41.30	1.80	
10:25	6.9		6.66	834.60	12.93	3.08	40.80	2.00	
10:28	7.5		6.66	834.30	12.95	3.01	40.40	2.10	
10:31	8.0		6.67	834.20	12.95	2.95	40.00	2.33	

Sampling Activities

Sampled By: JC — Sample Date/Time: 5/21/2025 10:31

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.67 pH — 834.20 Spec. Cond. — 12.95 Temp

Field Filtered: No — Filter Type:

Water Level: 15.69 feet below TOC — Drawdown: 1.28 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Justin Colp — **Date:** 5/21/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: AP-6
Sample ID: 007
Date (s): 5/21/2025

Field Team Members

Name: Danny Crump — Affiliation: TekLab, Inc.
Name: Brett Gillihan — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 62 °F — Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 13:52
Static Water Level: 7.77 feet below TOC
Total Depth: 39.62 feet below TOC
Water Column: 31.85 feet

Purging Activities

Purged By: DC — Purge Date: 5/21/2025
Purge Method: Bladder Pump — Well Diameter: 2"
Purge Volume Calculation (L): 31.85 ft. x 0.022 = 0.7 L x 3 Vol. = 2.1 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Clear — Odor: None — Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:52	0.0	250	purge start time						
14:04	3.0	↓	7.08	648.70	12.84	1.40	62.10	8.84	
14:07	3.8		7.07	648.20	12.75	1.31	60.00	7.25	
14:10	4.5		7.01	648.70	12.78	1.26	61.60	5.84	
14:13	5.3		6.99	648.30	12.69	1.23	61.10	5.62	
14:16	6.0		7.00	648.50	12.62	1.25	60.20	4.05	

Sampling Activities

Sampled By: BG — Sample Date/Time: 5/21/2025 14:16
Sample Method: Low Flow — Sample Equipment: Bladder Pump
Sample Parameters: 7.00 pH — 648.50 Spec. Cond. — 12.62 Temp
Field Filtered: No — Filter Type:
Water Level: 7.79 feet below TOC — Drawdown: 0.02 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan — **Date:** 5/21/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-7
Project Location:	Springfield, IL	**Sample ID:**	008
W.O. Number (s):	25051158	**Date (s):**	5/27/2025

Field Team Members

Name: Brett Gillihan — Affiliation: TekLab, Inc.

Name: Jeremy Rodriguez — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 64 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 11:27

Static Water Level: 10.64 feet below TOC

Total Depth: 42.52 feet below TOC

Water Column: 31.88 feet

Purging Activities

Purged By: JR — Purge Date: 5/27/2025

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 31.88 ft. x 0.022 = 0.7 L x 3 Vol. = 2.1 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear — Odor: None — Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:27	0.0	167	purge start time						
11:44	2.8	↓	7.13	730.50	12.22	0.65	-9.80	7.65	
11:47	3.3		7.12	736.70	12.30	0.60	-24.40	7.03	
11:50	3.8		7.11	746.90	12.37	0.57	-36.40	10.65	
11:53	4.3		7.13	759.20	12.49	0.54	-45.70	6.33	
11:56	4.8		7.14	769.70	12.47	0.51	-52.90	4.56	

Sampling Activities

Sampled By: JR — Sample Date/Time: 5/27/2025 11:57

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 7.14 pH — 769.70 Spec. Cond. — 12.47 Temp

Field Filtered: No — Filter Type:

Water Level: 10.69 feet below TOC — Drawdown: 0.05 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan — **Date:** 5/27/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-8
Project Location:	Springfield, IL	**Sample ID:**	009
W.O. Number (s):	25051158	**Date (s):**	5/21/2025

Field Team Members

Name: Danny Crump Affiliation: TekLab, Inc.

Name: Brett Gillihan Affiliation: TekLab, Inc.

Weather Conditions

Temp: 59 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 10:45

Static Water Level: 4.01 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 35.59 feet

Purging Activities

Purged By: DC Purge Date: 5/21/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 35.59 ft. x 0.022 = 0.78 L x 3 Vol. = 2.34 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:45	0.0	222	purge start time						
11:00	3.3	↓	6.78	878.60	13.40	1.19	-98.10	85.01	
11:03	4.0		6.78	876.10	13.37	1.08	-99.50	67.14	
11:06	4.7		6.78	876.00	13.43	1.03	-100.70	53.27	
11:09	5.3		6.78	875.20	13.54	1.02	-101.40	48.89	
11:12	6.0		6.78	876.20	13.52	0.96	-102.10	37.12	

Sampling Activities

Sampled By: BG Sample Date/Time: 5/21/2025 11:12

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.78 pH 876.20 Spec. Cond. 13.52 Temp

Field Filtered: No Filter Type:

Water Level: 4.32 feet below TOC Drawdown: 0.31 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/21/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: AP-9
Sample ID: 010
Date (s): 5/27/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Jeremy Rodriguez Affiliation: TekLab, Inc.

Weather Conditions

Temp: 61 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 9:31
Static Water Level: 12.49 feet below TOC
Total Depth: 39.60 feet below TOC
Water Column: 27.11 feet

Purging Activities

Purged By: BG Purge Date: 5/27/2025
Purge Method: Submersible Pump Well Diameter: 2"
Purge Volume Calculation (L): 27.11 ft. x 0.022 = 0.6 L x 3 Vol. = 1.8 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:31	0.0	94	purge start time						
10:12	3.9	↓	6.77	982.90	13.57	2.08	265.00	47.03	
10:15	4.2		6.78	975.30	13.76	2.10	262.90	41.45	
10:18	4.4		6.78	973.40	13.70	1.96	258.40	41.67	
10:21	4.7		6.78	966.30	13.72	1.80	250.10	43.68	
10:24	5.0		6.79	963.40	13.68	1.71	239.20	45.24	

Sampling Activities

Sampled By: BG Sample Date/Time: 5/27/2025 10:24
Sample Method: Low Flow Sample Equipment: Submersible Pump
Sample Parameters: 6.79 pH 963.40 Spec. Cond. 13.68 Temp
Field Filtered: No Filter Type:
Water Level: 12.62 feet below TOC Drawdown: 0.13 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/27/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-10
Project Location:	Springfield, IL	**Sample ID:**	011
W.O. Number (s):	25051158	**Date (s):**	5/21/2025

Field Team Members

Name: Danny Crump Affiliation: TekLab, Inc.

Name: Brett Gillihan Affiliation: TekLab, Inc.

Weather Conditions

Temp: 59 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 11:35

Static Water Level: 3.92 feet below TOC

Total Depth: 38.07 feet below TOC

Water Column: 34.15 feet

Purging Activities

Purged By: DC Purge Date: 5/21/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.15 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:35	0.0	207	purge start time						
11:52	3.5	↓	6.62	1,101.10	13.82	0.91	-82.30	55.50	
11:55	4.1		6.62	1,099.50	13.83	0.86	-84.10	87.61	
11:58	4.8		6.62	1,102.00	14.05	0.84	-85.70	179.00	
12:01	5.4		6.63	1,103.20	14.02	0.83	-86.90	162.87	
12:04	6.0		6.63	1,102.80	13.99	0.81	-87.60	136.71	

Sampling Activities

Sampled By: BG Sample Date/Time: 5/21/2025 12:04

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.63 pH 1,102.80 Spec. Cond. 13.99 Temp

Field Filtered: No Filter Type:

Water Level: 4.21 feet below TOC Drawdown: 0.29 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/21/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-11
Project Location:	Springfield, IL	**Sample ID:**	012
W.O. Number (s):	25051158	**Date (s):**	5/22/2025

Field Team Members

Name: Danny Crump Affiliation: TekLab, Inc.

Name: Brett Gillihan Affiliation: TekLab, Inc.

Weather Conditions

Temp: 58 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 10:30

Static Water Level: 12.03 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 10.92 feet

Purging Activities

Purged By: DC Purge Date: 5/22/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 10.92 ft. x 0.022 = 0.24 L x 3 Vol. = 0.72 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:30	0.0	160	purge start time						
10:43	2.1	↓	6.55	1,117.80	13.61	1.51	167.70	22.69	
10:46	2.6		6.54	1,106.60	13.79	1.35	168.40	13.78	
10:49	3.0		6.54	1,110.80	13.51	1.16	167.80	9.56	
10:52	3.5		6.53	1,105.70	13.30	1.13	167.10	9.02	
10:55	4.0		6.53	1,107.80	13.03	1.09	166.10	8.90	

Sampling Activities

Sampled By: BG Sample Date/Time: 5/22/2025 10:55

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.53 pH 1,107.80 Spec. Cond. 13.03 Temp

Field Filtered: No Filter Type:

Water Level: 12.05 feet below TOC Drawdown: 0.02 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/22/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-12
Project Location:	Springfield, IL	**Sample ID:**	013
W.O. Number (s):	25051158	**Date (s):**	5/22/2025

Field Team Members

Name: Danny Crump Affiliation: TekLab, Inc.

Name: Brett Gillihan Affiliation: TekLab, Inc.

Weather Conditions

Temp: 59 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 11:12

Static Water Level: 15.16 feet below TOC

Total Depth: 30.40 feet below TOC

Water Column: 15.24 feet

Purging Activities

Purged By: DC Purge Date: 5/22/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 15.24 ft. x 0.022 = 0.34 L x 3 Vol. = 1.02 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Lt Orange

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:12	0.0	154	purge start time						
11:25	2.0	↓	6.51	1,328.30	13.10	1.22	110.10	211.77	
11:28	2.5		6.51	1,325.30	12.91	1.11	102.10	174.11	
11:31	2.9		6.51	1,322.60	12.99	1.09	95.20	135.07	
11:34	3.4		6.50	1,323.50	13.32	1.07	88.80	95.93	
11:37	3.8		6.50	1,325.90	13.42	1.05	82.70	98.34	

Sampling Activities

Sampled By: BG Sample Date/Time: 5/22/2025 11:38

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.50 pH 1,325.90 Spec. Cond. 13.42 Temp

Field Filtered: No Filter Type:

Water Level: 15.26 feet below TOC Drawdown: 0.10 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/22/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: AP-13
Sample ID: 014
Date (s): 5/22/2025

Field Team Members

Name: Danny Crump — Affiliation: TekLab, Inc.
Name: Brett Gillihan — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 59 °F — Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 12:37
Static Water Level: 14.73 feet below TOC
Total Depth: 31.00 feet below TOC
Water Column: 16.27 feet

Purging Activities

Purged By: DC — Purge Date: 5/22/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 16.27 ft. x 0.022 = 0.36 L x 3 Vol. = 1.08 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Clear — Odor: None — Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:37	0.0	167	purge start time						
12:55	3.0	↓	6.70	758.80	12.97	1.02	-46.10	22.00	
12:58	3.5		6.69	756.60	12.69	0.99	-46.90	17.69	
13:01	4.0		6.69	755.70	12.62	0.97	-47.60	16.88	
13:04	4.5		6.68	755.30	12.56	0.94	-47.90	12.02	
13:07	5.0		6.68	754.60	12.56	0.93	-48.10	25.44	

Sampling Activities

Sampled By: BG — Sample Date/Time: 5/22/2025 13:07
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.68 pH — 754.60 Spec. Cond. — 12.56 Temp
Field Filtered: No — Filter Type:
Water Level: 14.96 feet below TOC — Drawdown: 0.23 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan — **Date:** 5/22/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: AP-14
Sample ID: 015
Date (s): 5/27/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 65 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 13:07
Static Water Level: 2.72 feet below TOC
Total Depth: 31.20 feet below TOC
Water Column: 28.48 feet

Purging Activities

Purged By: JC Purge Date: 5/27/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 28.48 ft. x 0.022 = 0.63 L x 3 Vol. = 1.89 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 9.00 L
Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:06	0.0	237	purge start time						
13:14	1.9	↓	7.16	2,023.70	14.74	5.78	111.10	16.61	
13:17	2.6		7.11	2,023.20	14.71	5.30	110.80	7.27	
13:20	3.3		7.08	2,021.40	14.44	4.94	110.30	5.26	
13:23	4.0		7.06	2,022.40	14.39	4.63	109.60	2.83	
13:26	4.7		7.05	2,023.00	14.34	4.37	108.80	6.82	
13:29	5.4		7.04	2,023.20	14.33	4.15	107.90	5.66	
13:32	6.2		7.03	2,025.90	14.57	3.94	106.90	14.55	
13:35	6.9		7.03	2,026.70	14.56	3.76	105.80	9.22	
13:38	7.6		7.03	2,026.10	14.52	3.59	105.00	3.49	
13:41	8.3		7.03	2,023.50	14.40	3.45	104.30	2.62	
13:44	9.0		7.02	2,021.50	14.34	3.33	103.50	3.23	

Sampling Activities

Sampled By: JC Sample Date/Time: 5/27/2025 13:44
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 7.02 pH 2,021.50 Spec. Cond. 14.34 Temp
Field Filtered: No Filter Type:
Water Level: 3.09 feet below TOC Drawdown: 0.37 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Justin Colp **Date:** 5/27/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: T-1
Sample ID: 016
Date (s): 5/22/2025

Field Team Members

Name: Danny Crump — Affiliation: TekLab, Inc.
Name: Brett Gillihan — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 60 °F — Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 13:23
Static Water Level: 10.86 feet below TOC
Total Depth: 22.95 feet below TOC
Water Column: 12.09 feet

Purging Activities

Purged By: DC — Purge Date: 5/22/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 12.09 ft. x 0.022 = 0.27 L x 3 Vol. = 0.81 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Clear — Odor: None — Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:23	0.0	185	purge start time						
13:38	2.8	↓	6.60	1,281.40	12.17	1.05	31.10	53.11	
13:41	3.3		6.59	1,285.80	12.23	0.99	33.80	40.42	
13:44	3.9		6.59	1,286.30	12.21	0.97	36.40	35.04	
13:47	4.4		6.58	1,285.40	12.26	0.96	39.00	31.18	
13:50	5.0		6.58	1,284.90	12.26	0.98	41.30	24.38	

Sampling Activities

Sampled By: BG — Sample Date/Time: 5/22/2025 13:50
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.58 pH — 1,284.90 Spec. Cond. — 12.26 Temp
Field Filtered: No — Filter Type:
Water Level: 11.25 feet below TOC — Drawdown: 0.39 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan — **Date:** 5/22/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: T-2
Sample ID: 017
Date (s): 5/22/2025

Field Team Members

Name: Danny Crump — Affiliation: TekLab, Inc.
Name: Brett Gillihan — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 58 °F — Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 11:58
Static Water Level: 23.83 feet below TOC
Total Depth: 34.44 feet below TOC
Water Column: 10.61 feet

Purging Activities

Purged By: DC — Purge Date: 5/22/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 10.61 ft. x 0.022 = 0.23 L x 3 Vol. = 0.69 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Slightly cloudy — Odor: None — Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:58	0.0	238	purge start time						
12:07	2.1	↓	6.54	1,700.10	12.86	1.85	-31.10	14.04	
12:10	2.9		6.53	1,705.50	13.33	2.37	-37.90	18.37	
12:13	3.6		6.54	1,718.20	13.74	2.71	-43.30	18.19	
12:16	4.3		6.54	1,731.30	13.91	3.00	-47.10	17.42	
12:19	5.0		6.55	1,742.30	13.96	3.03	-49.80	17.28	

Sampling Activities

Sampled By: BG — Sample Date/Time: 5/22/2025 12:19
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.55 pH — 1,742.30 Spec. Cond. — 13.96 Temp
Field Filtered: No — Filter Type:
Water Level: 23.98 feet below TOC — Drawdown: 0.15 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan — **Date:** 5/22/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-4
Project Location:	Springfield, IL	**Sample ID:**	018
W.O. Number (s):	25051158	**Date (s):**	5/27/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Jeremy Rodriguez Affiliation: TekLab, Inc.

Weather Conditions

Temp: 62 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 10:44

Static Water Level: 15.64 feet below TOC

Total Depth: 27.42 feet below TOC

Water Column: 11.78 feet

Purging Activities

Purged By: BG Purge Date: 5/27/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 11.78 ft. x 0.022 = 0.26 L x 3 Vol. = 0.78 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:44	0.0	250	purge start time						
10:52	2.0	↓	6.68	650.50	13.27	1.64	190.40	21.71	
10:55	2.8		6.65	647.50	13.59	1.72	194.10	26.95	
10:58	3.5		6.63	645.50	13.45	1.70	196.90	23.73	
11:01	4.3		6.63	642.60	13.50	1.63	199.00	26.12	
11:04	5.0		6.63	641.30	13.46	1.58	200.60	22.74	

Sampling Activities

Sampled By: JR Sample Date/Time: 5/27/2025 11:04

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.63 pH 641.30 Spec. Cond. 13.46 Temp

Field Filtered: No Filter Type:

Water Level: 15.80 feet below TOC Drawdown: 0.16 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/27/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: T-5
Sample ID: 019
Date (s): 5/27/2025

Field Team Members

Name: Brett Gillihan — Affiliation: TekLab, Inc.
Name: Jeremy Rodriguez — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 66 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 12:59
Static Water Level: 8.57 feet below TOC
Total Depth: 22.34 feet below TOC
Water Column: 13.77 feet

Purging Activities

Purged By: BG — Purge Date: 5/27/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 13.77 ft. x 0.022 = 0.3 L x 3 Vol. = 0.9 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Clear — Odor: None — Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:59	0.0	167	purge start time						
13:11	2.0	↓	6.78	543.10	16.36	1.21	28.70	11.50	
13:14	2.5		6.77	540.30	16.12	1.17	32.60	10.59	
13:17	3.0		6.77	539.10	16.07	1.15	36.50	9.76	
13:20	3.5		6.77	537.20	16.00	1.13	40.10	10.74	
13:23	4.0		6.77	536.50	15.94	1.13	43.80	9.87	

Sampling Activities

Sampled By: JR — Sample Date/Time: 5/27/2025 13:23
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.77 pH — 536.50 Spec. Cond. — 15.94 Temp
Field Filtered: No — Filter Type:
Water Level: 9.14 feet below TOC — Drawdown: 0.57 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan — **Date:** 5/27/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-6
Project Location:	Springfield, IL	**Sample ID:**	020
W.O. Number (s):	25051158	**Date (s):**	5/27/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Jeremy Rodriguez Affiliation: TekLab, Inc.

Weather Conditions

Temp: 65 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/27/2025 12:15

Static Water Level: 8.83 feet below TOC

Total Depth: 43.62 feet below TOC

Water Column: 34.79 feet

Purging Activities

Purged By: JR Purge Date: 5/27/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.79 ft. x 0.022 = 0.77 L x 3 Vol. = 2.31 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:15	0.0	217	purge start time						
12:26	2.4	↓	6.99	858.40	16.17	1.46	-87.50	4.90	
12:29	3.0		6.99	862.80	15.83	1.30	-95.50	6.02	
12:32	3.7		6.99	857.20	15.83	1.16	-101.10	8.20	
12:35	4.3		6.99	855.90	15.95	1.19	-104.50	6.31	
12:38	5.0		7.00	859.60	16.00	1.14	-107.10	8.81	

Sampling Activities

Sampled By: JR Sample Date/Time: 5/27/2025 12:38

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 7.00 pH 859.60 Spec. Cond. 16.00 Temp

Field Filtered: No Filter Type:

Water Level: 9.05 feet below TOC Drawdown: 0.22 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44716

Form Completed By: Brett Gillihan **Date:** 5/27/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AW-1
Project Location:	Springfield, IL	**Sample ID:**	021
W.O. Number (s):	25051158	**Date (s):**	5/22/2025

Field Team Members

Name: Payton Yoch — Affiliation: TekLab, Inc.

Name: Justin Colp — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 57 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 5/22/2025 9:50

Static Water Level: 13.77 feet below TOC

Total Depth: 54.81 feet below TOC

Water Column: 41.04 feet

Purging Activities

Purged By: PY — Purge Date: 5/22/2025

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 41.04 ft. x 0.022 = 0.9 L x 3 Vol. = 2.7 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:55	0.0	172	purge start time						
10:12	2.9	↓	6.89	1,482.50	13.66	7.29	70.00	4.06	
10:15	3.4		6.90	1,480.20	13.86	7.16	70.40	4.64	
10:18	4.0		6.92	1,478.90	14.31	7.08	70.70	4.12	
10:21	4.5		6.94	1,478.80	14.50	7.10	71.00	3.38	
10:24	5.0		6.96	1,477.40	14.65	7.19	71.50	3.55	

Sampling Activities

Sampled By: PY — Sample Date/Time: 5/22/2025 10:24

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.96 pH — 1,477.40 Spec. Cond. — 14.65 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 15.72 feet below TOC — Drawdown: 1.95 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By: Payton K — **Date:** 5/22/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25051158
Monitoring Point: G120
Sample ID: 022
Date (s): 5/21/2025

Field Team Members

Name: Payton Yoch — Affiliation: TekLab, Inc.
Name: Justin Colp — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 61 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 5/21/2025 13:34
Static Water Level: 16.18 feet below TOC
Total Depth: 50.37 feet below TOC
Water Column: 34.19 feet

Purging Activities

Purged By: PY — Purge Date: 5/21/2025
Purge Method: Submersible Pump — Well Diameter: 2"
Purge Volume Calculation (L): 34.19 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 7.00 L
Physical appearance of purge water: Slightly cloudy — Odor: Slight — Color: None

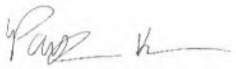
Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:25	0.0	212	purge start time						
13:43	3.8	↓	6.59	1,943.40	15.75	3.59	77.90	15.49	
13:46	4.5		6.58	1,946.40	15.82	3.31	73.60	15.45	
13:49	5.1		6.58	1,947.80	15.70	3.11	68.80	20.89	
13:52	5.7		6.57	1,946.60	15.86	2.95	63.60	18.90	
13:55	6.4		6.57	1,949.50	15.88	2.82	58.10	13.31	
13:58	7.0		6.57	1,948.40	15.95	2.71	52.50	13.58	

Sampling Activities

Sampled By: PY — Sample Date/Time: 5/21/2025 13:58
Sample Method: Low Flow — Sample Equipment: Submersible Pump
Sample Parameters: 6.57 pH — 1,948.40 Spec. Cond. — 15.95 Temp
Field Filtered: Yes — Filter Type: Inline Disposable
Water Level: 16.30 feet below TOC — Drawdown: 0.12 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210760

Form Completed By:  **Date:** 5/21/2025

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25051158
Technician(s): DC, JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 44716 Technician(s): Brett Gillihan Date: 5/21/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/21/25 9:19
7.0 Buffer	WC250407A	7.00	5/21/25 9:12
10.0 Buffer	WC240625A	10.00	5/21/25 9:25
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/21/25 9:31

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.23	5/21/25 9:37
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	5/21/25 9:41	17	7.01	1,447	0.63		
CCV-1-BG	CCV	5/21/25 16:03	17.8	7.04	1,422	0.66		

Comments:

Field Meter ID: Pine 44716 Technician(s): Brett Gillihan Date: 5/22/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/22/25 9:40
7.0 Buffer	WC250407A	7.00	5/22/25 9:35
10.0 Buffer	WC240625A	10.00	5/22/25 9:50
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1418	5/22/25 9:53

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.17	5/22/25 9:56
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	5/22/25 10:30	18.1	6.94	1,436	0.45		
CCV-2-BG	CCV	5/22/25 14:19	17.1	7.02	1,439	0.66		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25051158
Technician(s): DC, JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 44716 Technician(s): Brett Gillihan Date: 5/27/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/27/25 8:17
7.0 Buffer	WC25047A	7.00	5/27/25 8:10
10.0 Buffer	WC240625A	10.00	5/27/25 8:26
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1413	5/27/25 8:36

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.23	5/27/25 8:43
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-BG	LCS	5/27/25 8:48	16.9	7.05	1,443	0.42		
CCV-3-BG	CCV	5/27/25 14:12	18.6	7.03	1,464	0.54		

Comments:

Field Meter ID: Pine 44716 Technician(s): Brett Gillihan Date: 5/28/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/28/25 8:37
7.0 Buffer	WC25047A	7.00	5/28/25 8:28
10.0 Buffer	WC240625A	10.00	5/28/25 8:43
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1418	5/28/25 8:49

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.19	5/28/25 8:52
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4-BG	LCS	5/28/25 8:55	17.1	6.99	1,446	0.35		
CCV-4-BG	CCV	5/28/25 12:08	18.4	7.02	1,425	0.48		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25051158
Technician(s): DC, JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210760 Technician(s): justin colp Date: 5/21/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc250102a	4.00	5/21/25 9:19
7.0 Buffer	wc250407a	7.00	5/21/25 9:14
10.0 Buffer	wc240625a	10.00	5/21/25 9:24
LCS/CCV (7.0 Buffer)	wc240918a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/21/25 9:29

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.12	5/21/25 9:30
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	5/21/25 9:34	18.9	6.98	1,410	1.08		
CCV-1-JC	CCV	5/21/25 14:37	20	6.96	1,434	1.05		

Comments:

Field Meter ID: Pine 210760 Technician(s): Payton Yoch Date: 5/22/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/22/25 9:14
7.0 Buffer	WC250407A	7.00	5/22/25 9:09
10.0 Buffer	WC240625A	10.00	5/22/25 9:20
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/22/25 9:23

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.07	5/22/25 9:31
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-PY	LCS	5/22/25 9:38	17.3	7.05	1,412	1.07		
CCV-2-PY	CCV	5/22/25 14:14	18.5	6.98	1,415	1.08		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25051158
Technician(s): DC, JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210760 Technician(s): justin colp Date: 5/27/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/27/25 8:56
7.0 Buffer	WC250407A	7.00	5/27/25 8:50
10.0 Buffer	WC240625A	10.00	5/27/25 9:01
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/27/25 9:07

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.21	5/27/25 9:08
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-JC	LCS	5/27/25 9:11	19.2	6.96	1,407	1.24		
CCV-3-JC	CCV	5/27/25 14:15	21.9	7.02	1,404	1.31		

Comments:

Field Meter ID: Pine 210760 Technician(s): justin colp Date: 5/28/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	5/28/25 8:47
7.0 Buffer	WC250407A	7.00	5/28/25 8:43
10.0 Buffer	WC240625A	10.00	5/28/25 8:51
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	5/28/25 8:57

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.12	5/28/25 8:58
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-4-JC	LCS	5/28/25 9:03	20.5	6.97	1,409	1.16		
CCV-4-JC	CCV	5/28/25 12:20	20.8	6.93	1,400	1.57		

Comments:

May 09, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 25041334

Dear Eric Staley:

TEKLAB, INC received 5 samples on 4/24/2025 12:27:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Work Order: 25041334
Client Project: FGDS Landfill
Report Date: 09-May-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	12
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 25041334

Client Project: FGDS Landfill **Report Date:** 09-May-25

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 25041334
Client Project: FGDS Landfill
Report Date: 09-May-25

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 25041334
Report Date: 09-May-25

Cooler Receipt Temp: 10.5 °C

An employee of Teklab, Inc. collected the sample(s).

Radium 226/228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 25041334

Client Project: FGDS Landfill

Report Date: 09-May-25

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2026	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2025	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 25041334

Client Project: FGDS Landfill **Report Date:** 09-May-25

Lab ID: 25041334-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 04/24/2025 10:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	04/24/2025 10:29	R363926
Depth to water	*	-5.00		**2.39**	ft	1	04/24/2025 10:29	R363926
Depth to water from measuring point	*	0		**5.19**	ft	1	04/24/2025 10:29	R363926
Elevation of groundwater surface	*	0		**541.61**	ft	1	04/24/2025 10:29	R363926
Measuring Point Elevation	*	0		**546.80**	ft	1	04/24/2025 10:29	R363926
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	04/24/2025 10:29	R363926
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.1**	NTU	1	04/24/2025 10:29	R363926
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.9**	°F	1	04/24/2025 10:29	R363926
SW-846 9040B								
pH, Field	*	1.00		**6.86**		1	04/24/2025 10:29	R363926
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1340**	µmhos/cm @25C	1	04/24/2025 10:29	R363926
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**956**	mg/L	1	04/29/2025 14:48	R364192
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/25/2025 18:04	R363968
Chloride	NELAP	5.00		**103**	mg/L	10	04/25/2025 18:04	R363968
Sulfate	NELAP	10.0		**256**	mg/L	10	04/25/2025 18:04	R363968
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0101**	mg/L	1	04/25/2025 9:13	238084
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	04/25/2025 9:13	238084
Boron	NELAP	0.0200		**0.124**	mg/L	1	04/25/2025 9:13	238084
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	04/25/2025 9:13	238084
Calcium	NELAP	0.100		**152**	mg/L	1	04/25/2025 9:13	238084
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/25/2025 9:13	238084
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	04/25/2025 9:13	238084
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	04/25/2025 9:13	238084
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	04/25/2025 9:13	238084
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 15:38	238084
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 15:38	238084
Lithium	*	0.0030		**0.0156**	mg/L	5	04/25/2025 15:38	238084
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 15:38	238084
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	04/25/2025 15:38	238084
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	04/28/2025 17:14	238209
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	05/07/2025 0:00	R364677
Radium-228	*	0		**See Attached**	pci/L	1	05/07/2025 0:00	R364677

Client: City Water, Light & Power **Work Order:** 25041334

Client Project: FGDS Landfill **Report Date:** 09-May-25

Lab ID: 25041334-002 **Client Sample ID:** P07D

Matrix: GROUNDWATER **Collection Date:** 04/24/2025 10:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**528.25**	ft	1	04/24/2025 10:02	R363926
Depth to water	*	-5.00		**0.99**	ft	1	04/24/2025 10:02	R363926
Depth to water from measuring point	*	0		**3.99**	ft	1	04/24/2025 10:02	R363926
Elevation of groundwater surface	*	0		**524.26**	ft	1	04/24/2025 10:02	R363926
Measuring Point Elevation	*	0		**528.25**	ft	1	04/24/2025 10:02	R363926
Measuring Point Height Above Land Surface	*	0		**3.00**	ft	1	04/24/2025 10:02	R363926
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**11**	NTU	1	04/24/2025 10:02	R363926
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.1**	°F	1	04/24/2025 10:02	R363926
SW-846 9040B								
pH, Field	*	1.00		**6.70**		1	04/24/2025 10:02	R363926
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1550**	µmhos/cm @25C	1	04/24/2025 10:02	R363926
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	33		**1160**	mg/L	1.67	04/29/2025 14:47	R364192
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/25/2025 18:16	R363968
Chloride	NELAP	5.00		**31.9**	mg/L	10	04/25/2025 18:16	R363968
Sulfate	NELAP	10.0		**283**	mg/L	10	04/25/2025 18:16	R363968
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.847**	mg/L	1	04/25/2025 9:14	238084
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	04/25/2025 9:14	238084
Boron	NELAP	0.0200		**5.22**	mg/L	1	04/25/2025 9:14	238084
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	04/25/2025 9:14	238084
Calcium	NELAP	0.100		**175**	mg/L	1	04/25/2025 9:14	238084
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/25/2025 9:14	238084
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	04/25/2025 9:14	238084
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	04/25/2025 9:14	238084
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	04/25/2025 9:14	238084
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 15:44	238084
Arsenic	NELAP	0.0010		**0.0262**	mg/L	5	04/25/2025 15:44	238084
Lithium	*	0.0030		**0.0076**	mg/L	5	04/25/2025 15:44	238084
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 15:44	238084
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	04/25/2025 15:44	238084
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	04/28/2025 17:16	238209
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	05/07/2025 0:00	R364677
Radium-228	*	0		**See Attached**	pci/L	1	05/07/2025 0:00	R364677

Client: City Water, Light & Power **Work Order:** 25041334

Client Project: FGDS Landfill **Report Date:** 09-May-25

Lab ID: 25041334-003 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 04/24/2025 9:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	04/24/2025 9:29	R363926
Depth to water	*	-5.00		**0.49**	ft	1	04/24/2025 9:29	R363926
Depth to water from measuring point	*	0		**3.79**	ft	1	04/24/2025 9:29	R363926
Elevation of groundwater surface	*	0		**526.19**	ft	1	04/24/2025 9:29	R363926
Measuring Point Elevation	*	0		**529.98**	ft	1	04/24/2025 9:29	R363926
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	04/24/2025 9:29	R363926
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.0**	NTU	1	04/24/2025 9:29	R363926
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.0**	°F	1	04/24/2025 9:29	R363926
SW-846 9040B								
pH, Field	*	1.00		**6.81**		1	04/24/2025 9:29	R363926
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1060**	µmhos/cm @25C	1	04/24/2025 9:29	R363926
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**650**	mg/L	1	04/29/2025 14:45	R364192
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/25/2025 18:27	R363968
Chloride	NELAP	5.00		**21.2**	mg/L	10	04/25/2025 18:27	R363968
Sulfate	NELAP	10.0		**65.8**	mg/L	10	04/25/2025 18:27	R363968
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.299**	mg/L	1	04/25/2025 9:15	238084
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	04/25/2025 9:15	238084
Boron	NELAP	0.0200		**1.77**	mg/L	1	04/25/2025 9:15	238084
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	04/25/2025 9:15	238084
Calcium	NELAP	0.100		**115**	mg/L	1	04/25/2025 9:15	238084
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/25/2025 9:15	238084
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	04/25/2025 9:15	238084
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	04/25/2025 9:15	238084
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	04/25/2025 9:15	238084
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 15:49	238084
Arsenic	NELAP	0.0010		**0.0014**	mg/L	5	04/25/2025 15:49	238084
Lithium	*	0.0030		**0.0054**	mg/L	5	04/25/2025 15:49	238084
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 15:49	238084
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	04/25/2025 15:49	238084
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	04/28/2025 17:19	238209
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	05/07/2025 0:00	R364677
Radium-228	*	0		**See Attached**	pci/L	1	05/07/2025 0:00	R364677

Client: City Water, Light & Power **Work Order:** 25041334

Client Project: FGDS Landfill **Report Date:** 09-May-25

Lab ID: 25041334-004 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 04/24/2025 10:36

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	04/24/2025 10:36	R363926
Depth to water	*	-5.00		**25.26**	ft	1	04/24/2025 10:36	R363926
Depth to water from measuring point	*	0		**27.13**	ft	1	04/24/2025 10:36	R363926
Elevation of groundwater surface	*	0		**528.47**	ft	1	04/24/2025 10:36	R363926
Measuring Point Elevation	*	0		**555.60**	ft	1	04/24/2025 10:36	R363926
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	04/24/2025 10:36	R363926
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**78**	NTU	1	04/24/2025 10:36	R363926
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.0**	°F	1	04/24/2025 10:36	R363926
SW-846 9040B								
pH, Field	*	1.00		**6.65**		1	04/24/2025 10:36	R363926
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1500**	µmhos/cm @25C	1	04/24/2025 10:36	R363926
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	25		**1240**	mg/L	1.25	04/29/2025 14:44	R364192
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/25/2025 18:39	R363968
Chloride	NELAP	5.00		**28.1**	mg/L	10	04/25/2025 18:39	R363968
Sulfate	NELAP	10.0		**310**	mg/L	10	04/25/2025 18:39	R363968
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.573**	mg/L	1	04/25/2025 9:15	238084
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	04/25/2025 9:15	238084
Boron	NELAP	0.0200		**3.65**	mg/L	1	04/25/2025 9:15	238084
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	04/25/2025 9:15	238084
Calcium	NELAP	0.100		**173**	mg/L	1	04/25/2025 9:15	238084
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/25/2025 9:15	238084
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	04/25/2025 9:15	238084
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	04/25/2025 9:15	238084
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	04/25/2025 9:15	238084
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 15:55	238084
Arsenic	NELAP	0.0010		**0.0145**	mg/L	5	04/25/2025 15:55	238084
Lithium	*	0.0030		**0.0068**	mg/L	5	04/25/2025 15:55	238084
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 15:55	238084
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	04/25/2025 15:55	238084
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	04/28/2025 17:21	238209
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	05/07/2025 0:00	R364677
Radium-228	*	0		**See Attached**	pci/L	1	05/07/2025 0:00	R364677

Client: City Water, Light & Power **Work Order:** 25041334

Client Project: FGDS Landfill **Report Date:** 09-May-25

Lab ID: 25041334-005 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 04/24/2025 10:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	04/24/2025 10:03	R363926
Depth to water	*	-5.00		**27.05**	ft	1	04/24/2025 10:03	R363926
Depth to water from measuring point	*	0		**28.79**	ft	1	04/24/2025 10:03	R363926
Elevation of groundwater surface	*	0		**525.61**	ft	1	04/24/2025 10:03	R363926
Measuring Point Elevation	*	0		**554.40**	ft	1	04/24/2025 10:03	R363926
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	04/24/2025 10:03	R363926
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**52**	NTU	1	04/24/2025 10:03	R363926
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.2**	°F	1	04/24/2025 10:03	R363926
SW-846 9040B								
pH, Field	*	1.00		**6.54**		1	04/24/2025 10:03	R363926
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1770**	µmhos/cm @25C	1	04/24/2025 10:03	R363926
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	33		**1200**	mg/L	1.67	04/29/2025 14:38	R364192
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/25/2025 19:26	R363968
Chloride	NELAP	5.00		**36.4**	mg/L	10	04/25/2025 19:26	R363968
Sulfate	NELAP	10.0		**537**	mg/L	10	04/25/2025 19:26	R363968
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.491**	mg/L	1	04/25/2025 10:09	238084
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	04/25/2025 10:09	238084
Boron	NELAP	0.0200		**12.0**	mg/L	1	04/25/2025 10:09	238084
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	04/25/2025 10:09	238084
Calcium	NELAP	0.100		**241**	mg/L	1	04/25/2025 10:09	238084
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	04/25/2025 10:09	238084
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	04/25/2025 10:09	238084
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	04/25/2025 10:09	238084
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	04/25/2025 10:09	238084
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 16:41	238084
Arsenic	NELAP	0.0010		**0.0032**	mg/L	5	04/25/2025 16:41	238084
Lithium	*	0.0030		**0.0062**	mg/L	5	04/25/2025 16:41	238084
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	04/25/2025 16:41	238084
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	04/25/2025 16:41	238084
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	04/28/2025 17:23	238209
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	05/07/2025 0:00	R364677
Radium-228	*	0		**See Attached**	pci/L	1	05/07/2025 0:00	R364677

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 25041334
Report Date: 09-May-25

Carrier: Brett Gillihan
Received By: JMD

Completed by: Amber Dilallo
On: 24-Apr-25

Reviewed by: Ellie Hopkins
On: 24-Apr-25

Pages to follow: Chain of custody 1 Extra pages included 23

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	10.5	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Additional Nitric Acid (103505) was needed for R101, P07D, AW-2, G121 and G122 upon arrival at the laboratory. - JD/amberdilallo - 4/24/2025 2:30:20 PM

pH strip #101358. - JD/amberdilallo - 4/24/2025 2:30:23 PM

Drop off Location
☐ Downers Grove, IL ☐ Lenexa, KS
☐ Springfield, IL ☒ Collinsville, IL

CHAIN OF CUSTODY

pg. 1 of 1 Work order # 25041334

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004

Client:	City Water, Light & Power		
Address:	3100 Stevenson Drive		
City / State / Zip	Springfield, IL 62712		
Contact:	Eric Staley	**Phone:**	(217) 757-8610
E-Mail:	eric.staley@cwlp.com	**Fax:**	

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 10.5 °C LTG# 5

Preserved in: ☐ LAB ☒ FIELD

FOR LAB USE ONLY

Lab Notes: PH 101358 Added HNO3(103505) 2/2 1-Liter R101, P07D AW-2, G121, G122 JD 4/24/25

Client Comments Report QC LVL:___

*Elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Mo Hg

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No

Are these samples known to be hazardous? If yes, include details of the hazard. ☐ Yes ☒ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section. ☒ Yes ☐ No On file

Project Name/Number: FGDS Landfill

Sample Collector's Name: Justin Gip

Results Requested (call for PFAS TAT and surcharges)
☒ Standard ☐ 1-2 Day (100% Surcharge)
☐ Date ___ ☐ 3 Day (50% Surcharge)

Billing/PO#

Lab Use Only	Sample Identification	Date/Time Sampled	# and Type of Containers: UNP	HNO3	MATRIX: Groundwater	INDICATE ANALYSIS REQUESTED: Cl SO4 TDS F (T)	Field parameters*	Field Turbidity	Metals (T)**	Radium-226/228
25041334-001	R101	4-24-25 / 1029	1	3	X	X	X	X	X	X
002	P07D	1002	1	3	X	X	X	X	X	X
003	AW-2	929	1	3	X	X	X	X	X	X
004	G121	1036	1	3	X	X	X	X	X	X
005	G122	1003	1	3	X	X	X	X	X	X

Relinquished By	Date/Time	Received By	Date/Time
Justin Gip	4-24-25 1227	[signature]	4/24/25 12:27

The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions.

BottleOrder: 99065

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25041334
Monitoring Point: R101
Sample ID: 001
Date (s): 4/24/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 73 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/24/2025 10:16
Static Water Level: 5.19 feet below TOC
Total Depth: 35.27 feet below TOC
Water Column: 30.08 feet

Purging Activities

Purged By: JC Purge Date: 4/24/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 30.08 ft. x 0.022 = 0.66 L x 3 Vol. = 1.98 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.50 L
Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:17	0.0	292	purge start time						
10:20	0.9	↓	6.95	1,341.60	14.47	3.79	64.10	5.57	
10:23	1.8		6.89	1,339.30	14.74	3.52	63.30	5.16	
10:26	2.6		6.87	1,339.60	14.68	3.46	62.50	5.68	
10:29	3.5		6.86	1,341.50	14.38	3.42	61.90	5.07	

Sampling Activities

Sampled By: JC Sample Date/Time: 4/24/2025 10:29
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.86 pH 1,341.50 Spec. Cond. 14.38 Temp
Field Filtered: No Filter Type:
Water Level: 7.03 feet below TOC Drawdown: 1.84 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Justin Colp **Date:** 4/24/2025

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	P07D
Project Location:	Springfield, IL	**Sample ID:**	002
W.O. Number (s):	25041334	**Date (s):**	4/24/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/24/2025 9:40

Static Water Level: 3.99 feet below TOC

Total Depth: 32.54 feet below TOC

Water Column: 28.55 feet

Purging Activities

Purged By: JC Purge Date: 4/24/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 28.55 ft. x 0.022 = 0.63 L x 3 Vol. = 1.89 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:40	0.0	273	purge start time						
9:44	1.1	↓	6.79	1,525.50	14.11	1.49	84.50	268.11	
9:47	1.9		6.74	1,530.00	14.19	1.06	83.40	56.68	
9:50	2.7		6.72	1,543.10	14.07	0.93	82.40	28.59	
9:53	3.5		6.71	1,545.90	14.09	0.85	81.00	21.49	
9:56	4.4		6.71	1,548.80	14.17	0.82	79.40	14.70	
9:59	5.2		6.70	1,552.50	14.09	0.81	77.80	11.92	
10:02	6.0		6.70	1,551.60	13.94	0.79	76.20	10.97	

Sampling Activities

Sampled By: JC Sample Date/Time: 4/24/2025 10:02

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.70 pH 1,551.60 Spec. Cond. 13.94 Temp

Field Filtered: No Filter Type:

Water Level: 4.25 feet below TOC Drawdown: 0.26 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Justin Colp **Date:** 4/24/2025

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-2
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	25041334	**Date (s):**	4/24/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 68 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☑ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/24/2025 9:11

Static Water Level: 3.79 feet below TOC

Total Depth: 32.64 feet below TOC

Water Column: 28.85 feet

Purging Activities

Purged By: JC — Purge Date: 4/24/2025

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 28.85 ft. x 0.022 = 0.63 L x 3 Vol. = 1.89 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:11	0.0	250	purge start time						
9:14	0.8	↓	6.78	1,056.00	13.91	1.75	65.60	17.13	
9:17	1.5		6.78	1,057.20	13.94	1.34	63.90	10.67	
9:20	2.3		6.78	1,051.80	14.95	1.43	63.00	10.36	
9:23	3.0		6.80	1,058.80	15.22	1.52	62.90	7.70	
9:26	3.8		6.80	1,060.40	15.19	1.39	63.10	7.79	
9:29	4.5		6.81	1,060.10	15.02	1.32	63.50	5.98	

Sampling Activities

Sampled By: JC — Sample Date/Time: 4/24/2025 9:29

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.81 pH — 1,060.10 Spec. Cond. — 15.02 Temp

Field Filtered: No — Filter Type:

Water Level: 3.86 feet below TOC — Drawdown: 0.07 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Justin Colp — **Date:** 4/24/2025

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G121
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	25041334	**Date (s):**	4/24/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 73 °F Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/24/2025 9:31

Static Water Level: 27.13 feet below TOC

Total Depth: 58.56 feet below TOC

Water Column: 31.43 feet

Purging Activities

Purged By: BG Purge Date: 4/24/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 31.43 ft. x 0.022 = 0.69 L x 3 Vol. = 2.07 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.50 L

Physical appearance of purge water: Clear Odor: Slight Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:19	0.0	441	purge start time						
10:24	2.2	↓	6.64	1,513.80	13.75	0.61	-127.80	14.06	
10:27	3.5		6.64	1,511.60	13.82	0.51	-132.50	15.64	
10:30	4.9		6.64	1,508.70	13.83	0.45	-135.40	18.78	
10:33	6.2		6.64	1,506.00	13.85	0.42	-138.00	29.33	
10:36	7.5		6.65	1,503.40	13.89	0.39	-140.00	77.86	

Sampling Activities

Sampled By: PY Sample Date/Time: 4/24/2025 10:36

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

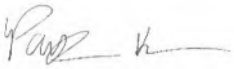
Sample Parameters: 6.65 pH 1,503.40 Spec. Cond. 13.89 Temp

Field Filtered: No Filter Type:

Water Level: 27.67 feet below TOC Drawdown: 0.54 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45280

Form Completed By:  **Date:** 4/24/2025

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25041334
Monitoring Point: G122
Sample ID: 005
Date (s): 4/24/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 68 °F Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/24/2025 9:28
Static Water Level: 28.79 feet below TOC
Total Depth: 49.29 feet below TOC
Water Column: 20.50 feet

Purging Activities

Purged By: BG Purge Date: 4/24/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 20.5 ft. x 0.022 = 0.45 L x 3 Vol. = 1.35 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 11.00 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:39	0.0	458	purge start time						
9:51	5.5	↓	6.54	1,776.30	13.76	0.63	-124.80	37.94	
9:54	6.9		6.55	1,777.40	13.87	0.53	-127.80	41.97	
9:57	8.3		6.55	1,774.50	13.91	0.50	-129.50	45.09	
10:00	9.6		6.54	1,771.90	13.92	0.47	-130.40	48.42	
10:03	11.0		6.54	1,769.50	13.98	0.44	-131.40	52.50	

Sampling Activities

Sampled By: PY Sample Date/Time: 4/24/2025 10:03
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.54 pH 1,769.50 Spec. Cond. 13.98 Temp
Field Filtered: No Filter Type:
Water Level: 28.99 feet below TOC Drawdown: 0.20 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45280

Form Completed By: Payton K **Date:** 4/24/2025

Site Samping Event: FGDS Landfill
LIMS Workorder: 25041334
Technician(s): JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 210756 Technician(s): justin colp Date: 4/24/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc250102a	4.00	4/24/25 8:39
7.0 Buffer	wc240913b	7.00	4/24/25 8:34
10.0 Buffer	wc240625a	10.00	4/24/25 8:43
LCS/CCV (7.0 Buffer)	wc240913c		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	103743	1412	4/24/25 8:50

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.13	4/24/25 8:51
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	4/24/25 8:53	19.2	7.03	1,396	0.15		
CCV-1-JC	CCV	4/24/25 10:54	24	7.06	1,388	0.07		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 25041334
Technician(s): JC, BG, PY

Field Calibration Log(s)
CWLP- 2Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45280 Technician(s): Payton Yoch Date: 4/24/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	4/24/25 9:05
7.0 Buffer	WC240913B	7.00	4/24/25 9:04
10.0 Buffer	WC240625A	10.00	4/24/25 9:08
LCS/CCV (7.0 Buffer)	WC240913C		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	10374	1412	4/24/25 9:11

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.34	4/24/25 9:15
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-PY	LCS	4/24/25 9:16	20.3	7.07	1,412	0.34		
CCV-1-PY	CCV	4/24/25 10:44	20.9	7.07	1,426	0.43		

Comments:

Third Quarter 2025

August 25, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10438
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 25080110

Dear Eric Staley:

TEKLAB, INC received 22 samples on 8/13/2025 2:36:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

PRELIMINARY REPORT

A preliminary report contains data that is incomplete or data that has not been fully validated. Caution should be exercised in the use of any data presented, as final reported results may not reflect the values presented.

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25080110
Report Date: 25-Aug-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	29
Chain of Custody	Appended

PRELIMINARY REPORT

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Client: City Water, Light & Power **Work Order:** 25080110

Client Project: Ash Pond Monitoring Wells **Report Date:** 25-Aug-25

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

PRELIMINARY REPORT

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Client: City Water, Light & Power

Work Order: 25080110

Client Project: Ash Pond Monitoring Wells

Report Date: 25-Aug-25

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

PRELIMINARY REPORT

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Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25080110
Report Date: 25-Aug-25

Cooler Receipt Temp: 4.3 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2026	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2026	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2026	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2025	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

PRELIMINARY REPORT

A preliminary report contains data that is incomplete or data that has not been fully validated. Caution should be exercised in the use of any data presented, as final reported results may not reflect the values presented.

Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 08/12/2025 13:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	08/12/2025 13:32	R369783
Depth to water	*	-5.00		**7.87**	ft	1	08/12/2025 13:32	R369783
Depth to water from measuring point	*	0		**10.57**	ft	1	08/12/2025 13:32	R369783
Elevation of groundwater surface	*	0		**528.93**	ft	1	08/12/2025 13:32	R369783
Measuring Point Elevation	*	0		**539.50**	ft	1	08/12/2025 13:32	R369783
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	08/12/2025 13:32	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	08/12/2025 13:32	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.3**	°F	1	08/12/2025 13:32	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.92**		1	08/12/2025 13:32	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**794**	µmhos/cm @25C	1	08/12/2025 13:32	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**440**	mg/L	1	08/14/2025 16:05	R369886
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 12:51	R369781
Chloride	NELAP	5.00		**26.4**	mg/L	10	08/13/2025 12:51	R369781
Sulfate	NELAP	10.0		**ND**	mg/L	10	08/13/2025 12:51	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.169**	mg/L	1	08/14/2025 18:11	243344
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 18:11	243344
Boron	NELAP	0.0200		**0.160**	mg/L	1	08/14/2025 18:11	243344
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 18:11	243344
Calcium	NELAP	0.100		**73.9**	mg/L	1	08/14/2025 18:11	243344
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 18:11	243344
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 18:11	243344
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 18:11	243344
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 18:11	243344
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 14:36	243344
Arsenic	NELAP	0.0010		**0.103**	mg/L	5	08/15/2025 3:45	243344
Lithium	*	0.0030		**0.0080**	mg/L	5	08/16/2025 0:00	243344
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 14:36	243344
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 14:36	243344
Sample result(s) for Li exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 14:55	243378

PRELIMINARY REPORT

A preliminary report contains data that is incomplete or data that has not been fully validated. Caution should be exercised in the use of any data presented, as final reported results may not reflect the values presented.

Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-002
Client Sample ID: AP-1
Matrix: GROUNDWATER
Collection Date: 08/12/2025 11:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**504.29**	ft	1	08/12/2025 11:55	R369783
Depth to water	*	-5.00		**8.95**	ft	1	08/12/2025 11:55	R369783
Depth to water from measuring point	*	0		**11.22**	ft	1	08/12/2025 11:55	R369783
Elevation of groundwater surface	*	0		**524.15**	ft	1	08/12/2025 11:55	R369783
Measuring Point Elevation	*	0		**535.37**	ft	1	08/12/2025 11:55	R369783
Measuring Point Height Above Land Surface	*	0		**2.27**	ft	1	08/12/2025 11:55	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**11**	NTU	1	08/12/2025 11:55	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.5**	°F	1	08/12/2025 11:55	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.42**		1	08/12/2025 11:55	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2100**	µmhos/cm @25C	1	08/12/2025 11:55	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1870**	mg/L	1	08/14/2025 16:05	R369886
Stable weight could not be achieved after multiple drying, cooling, and weighing. Lowest final weight reported.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 13:26	R369781
Chloride	NELAP	5.00		**51.8**	mg/L	10	08/13/2025 13:26	R369781
Sulfate	NELAP	10.0		**884**	mg/L	10	08/13/2025 13:26	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.276**	mg/L	1	08/14/2025 18:12	243344
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 18:12	243344
Boron	NELAP	0.200		**23.0**	mg/L	10	08/18/2025 13:19	243344
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 18:12	243344
Calcium	NELAP	0.100		**259**	mg/L	1	08/14/2025 18:12	243344
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 18:12	243344
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 18:12	243344
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 18:12	243344
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 18:12	243344
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 14:42	243344
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 3:51	243344
Lithium	*	0.0030		**0.0114**	mg/L	5	08/16/2025 0:06	243344
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 14:42	243344
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 14:42	243344
Sample result(s) for Li exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 14:57	243378

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 08/12/2025 12:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	08/12/2025 12:26	R369783
Depth to water	*	-5.00		**6.10**	ft	1	08/12/2025 12:26	R369783
Depth to water from measuring point	*	0		**8.60**	ft	1	08/12/2025 12:26	R369783
Elevation of groundwater surface	*	0		**527.50**	ft	1	08/12/2025 12:26	R369783
Measuring Point Elevation	*	0		**536.10**	ft	1	08/12/2025 12:26	R369783
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	08/12/2025 12:26	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.4**	NTU	1	08/12/2025 12:26	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.0**	°F	1	08/12/2025 12:26	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.30**		1	08/12/2025 12:26	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1610**	µmhos/cm @25C	1	08/12/2025 12:26	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1280**	mg/L	1	08/14/2025 16:05	R369886
Stable weight could not be achieved after multiple drying, cooling, and weighing. Lowest final weight reported.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 13:37	R369781
Chloride	NELAP	5.00		**36.0**	mg/L	10	08/13/2025 13:37	R369781
Sulfate	NELAP	10.0		**422**	mg/L	10	08/13/2025 13:37	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0736**	mg/L	1	08/14/2025 18:12	243344
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 18:12	243344
Boron	NELAP	0.0200		**3.43**	mg/L	1	08/14/2025 18:12	243344
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 18:12	243344
Calcium	NELAP	0.100		**216**	mg/L	1	08/14/2025 18:12	243344
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 18:12	243344
Cobalt	NELAP	0.0050		**0.0127**	mg/L	1	08/14/2025 18:12	243344
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 18:12	243344
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 18:12	243344
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 14:49	243344
Arsenic	NELAP	0.0010		**0.0014**	mg/L	5	08/15/2025 3:57	243344
Lithium	*	0.0030		**0.0087**	mg/L	5	08/16/2025 0:12	243344
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 14:49	243344
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 14:49	243344
Sample result(s) for Li exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:00	243378

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 08/12/2025 12:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	08/12/2025 12:58	R369783
Depth to water	*	-5.00		**6.18**	ft	1	08/12/2025 12:58	R369783
Depth to water from measuring point	*	0		**8.73**	ft	1	08/12/2025 12:58	R369783
Elevation of groundwater surface	*	0		**526.52**	ft	1	08/12/2025 12:58	R369783
Measuring Point Elevation	*	0		**535.25**	ft	1	08/12/2025 12:58	R369783
Measuring Point Height Above Land Surface	*	0		**2.55**	ft	1	08/12/2025 12:58	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.9**	NTU	1	08/12/2025 12:58	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.2**	°F	1	08/12/2025 12:58	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.36**		1	08/12/2025 12:58	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1620**	µmhos/cm @25C	1	08/12/2025 12:58	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1400**	mg/L	1	08/14/2025 16:05	R369886
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 13:49	R369781
Chloride	NELAP	5.00		**71.2**	mg/L	10	08/13/2025 13:49	R369781
Sulfate	NELAP	10.0		**609**	mg/L	10	08/13/2025 13:49	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.121**	mg/L	1	08/14/2025 18:13	243344
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 18:13	243344
Boron	NELAP	0.0200		**16.5**	mg/L	1	08/14/2025 18:13	243344
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 18:13	243344
Calcium	NELAP	0.100		**205**	mg/L	1	08/14/2025 18:13	243344
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 18:13	243344
Cobalt	NELAP	0.0050		**0.0076**	mg/L	1	08/20/2025 13:09	243344
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 18:13	243344
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 18:13	243344
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 14:55	243344
Arsenic	NELAP	0.0010		**0.0160**	mg/L	5	08/15/2025 4:04	243344
Lithium	*	0.0030		**0.0078**	mg/L	5	08/16/2025 1:03	243344
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 14:55	243344
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 14:55	243344
Sample result(s) for Li exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:02	243378

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-005
Client Sample ID: AP-4
Matrix: GROUNDWATER
Collection Date: 08/12/2025 10:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.19**	ft	1	08/12/2025 10:40	R369783
Depth to water	*	-5.00		**7.72**	ft	1	08/12/2025 10:40	R369783
Depth to water from measuring point	*	0		**10.86**	ft	1	08/12/2025 10:40	R369783
Elevation of groundwater surface	*	0		**544.74**	ft	1	08/12/2025 10:40	R369783
Measuring Point Elevation	*	0		**555.60**	ft	1	08/12/2025 10:40	R369783
Measuring Point Height Above Land Surface	*	0		**3.14**	ft	1	08/12/2025 10:40	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**120**	NTU	1	08/12/2025 10:40	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**67.5**	°F	1	08/12/2025 10:40	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.64**		1	08/12/2025 10:40	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1000**	µmhos/cm @25C	1	08/12/2025 10:40	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**574**	mg/L	1	08/14/2025 16:05	R369886
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 14:36	R369781
Chloride	NELAP	5.00		**12.4**	mg/L	10	08/13/2025 14:36	R369781
Sulfate	NELAP	10.0		**ND**	mg/L	10	08/13/2025 14:36	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.413**	mg/L	1	08/14/2025 18:14	243344
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 18:14	243344
Boron	NELAP	0.0200		**0.0940**	mg/L	1	08/14/2025 18:14	243344
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 18:14	243344
Calcium	NELAP	0.100		**124**	mg/L	1	08/14/2025 18:14	243344
Chromium	NELAP	0.0050		**0.0051**	mg/L	1	08/14/2025 18:14	243344
Cobalt	NELAP	0.0050		**0.0075**	mg/L	1	08/18/2025 13:20	243344
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 18:14	243344
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 18:14	243344
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 15:01	243344
Arsenic	NELAP	0.0010		**0.0248**	mg/L	5	08/15/2025 4:10	243344
Lithium	*	0.0030		**0.0127**	mg/L	5	08/16/2025 1:09	243344
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 15:01	243344
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 15:01	243344
Sample result(s) for Li exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:04	243378

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-006
Client Sample ID: AP-5
Matrix: GROUNDWATER
Collection Date: 08/12/2025 9:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**552.63**	ft	1	08/12/2025 9:56	R369783
Depth to water	*	-5.00		**13.64**	ft	1	08/12/2025 9:56	R369783
Depth to water from measuring point	*	0		**15.94**	ft	1	08/12/2025 9:56	R369783
Elevation of groundwater surface	*	0		**567.96**	ft	1	08/12/2025 9:56	R369783
Measuring Point Elevation	*	0		**583.90**	ft	1	08/12/2025 9:56	R369783
Measuring Point Height Above Land Surface	*	0		**2.30**	ft	1	08/12/2025 9:56	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**25**	NTU	1	08/12/2025 9:56	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.3**	°F	1	08/12/2025 9:56	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.64**		1	08/12/2025 9:56	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**868**	µmhos/cm @25C	1	08/12/2025 9:56	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**568**	mg/L	1	08/14/2025 16:05	R369886
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 14:48	R369781
Chloride	NELAP	5.00		**9.50**	mg/L	10	08/13/2025 14:48	R369781
Sulfate	NELAP	10.0		**69.1**	mg/L	10	08/13/2025 14:48	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0595**	mg/L	1	08/14/2025 18:18	243344
Beryllium	NELAP	0.0005		**0.0006**	mg/L	1	08/14/2025 18:18	243344
Boron	NELAP	0.0200		**0.0351**	mg/L	1	08/14/2025 18:18	243344
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 18:18	243344
Calcium	NELAP	0.100		**108**	mg/L	1	08/14/2025 18:18	243344
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 18:18	243344
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 18:18	243344
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 18:18	243344
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 18:18	243344
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 15:07	243344
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 4:16	243344
Lithium	*	0.0030		**0.0061**	mg/L	5	08/16/2025 1:15	243344
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 15:07	243344
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 15:07	243344
Sample result(s) for Li exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:07	243378

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-007
Client Sample ID: AP-6
Matrix: GROUNDWATER
Collection Date: 08/12/2025 11:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.20**	ft	1	08/12/2025 11:20	R369783
Depth to water	*	-5.00		**5.71**	ft	1	08/12/2025 11:20	R369783
Depth to water from measuring point	*	0		**8.13**	ft	1	08/12/2025 11:20	R369783
Elevation of groundwater surface	*	0		**529.69**	ft	1	08/12/2025 11:20	R369783
Measuring Point Elevation	*	0		**537.82**	ft	1	08/12/2025 11:20	R369783
Measuring Point Height Above Land Surface	*	0		**2.42**	ft	1	08/12/2025 11:20	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.1**	NTU	1	08/12/2025 11:20	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.7**	°F	1	08/12/2025 11:20	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.89**		1	08/12/2025 11:20	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**819**	µmhos/cm @25C	1	08/12/2025 11:20	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**482**	mg/L	1	08/14/2025 16:05	R369886
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**0.53**	mg/L	10	08/13/2025 14:59	R369781
Chloride	NELAP	5.00		**37.5**	mg/L	10	08/13/2025 14:59	R369781
Sulfate	NELAP	10.0		**ND**	mg/L	10	08/13/2025 14:59	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.168**	mg/L	1	08/14/2025 18:19	243344
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 18:19	243344
Boron	NELAP	0.0200		**0.278**	mg/L	1	08/14/2025 18:19	243344
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 18:19	243344
Calcium	NELAP	0.100		**67.3**	mg/L	1	08/14/2025 18:19	243344
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 18:19	243344
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 18:19	243344
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 18:19	243344
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 18:19	243344
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 15:39	243344
Arsenic	NELAP	0.0010		**0.0068**	mg/L	5	08/15/2025 5:07	243344
Lithium	*	0.0030		**0.0092**	mg/L	5	08/16/2025 1:22	243344
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 15:39	243344
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 15:39	243344
Sample result(s) for Li exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:09	243378

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 08/13/2025 9:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	08/13/2025 10:07	R369783
Depth to water	*	-5.00		**9.05**	ft	1	08/13/2025 10:07	R369783
Depth to water from measuring point	*	0		**11.71**	ft	1	08/13/2025 10:07	R369783
Elevation of groundwater surface	*	0		**527.31**	ft	1	08/13/2025 10:07	R369783
Measuring Point Elevation	*	0		**539.02**	ft	1	08/13/2025 10:07	R369783
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	08/13/2025 10:07	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**98**	NTU	1	08/13/2025 10:07	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.2**	°F	1	08/13/2025 10:07	R369783
SW-846 9040B								
pH, Field	*	1.00		**7.12**		1	08/13/2025 10:07	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**908**	µmhos/cm @25C	1	08/13/2025 10:07	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**514**	mg/L	1	08/15/2025 13:31	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/14/2025 15:41	R369837
Chloride	NELAP	5.00		**69.8**	mg/L	10	08/14/2025 15:41	R369837
Sulfate	NELAP	10.0		**ND**	mg/L	10	08/14/2025 15:41	R369837
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.143**	mg/L	1	08/19/2025 15:18	243426
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/19/2025 15:18	243426
Boron	NELAP	0.0200		**0.390**	mg/L	1	08/19/2025 15:18	243426
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/19/2025 15:18	243426
Calcium	NELAP	0.100	S	**60.9**	mg/L	1	08/19/2025 15:18	243426
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:18	243426
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:18	243426
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/19/2025 15:18	243426
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/19/2025 15:18	243426
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	08/18/2025 16:02	243426
Arsenic	NELAP	0.0010		**0.0289**	mg/L	5	08/19/2025 17:37	243563
Lithium	*	0.0030		**0.0091**	mg/L	5	08/15/2025 12:27	243426
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 12:27	243426
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2025 12:27	243426
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 16:12	243437

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 08/13/2025 12:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	08/13/2025 12:14	R369783
Depth to water	*	-5.00		**3.06**	ft	1	08/13/2025 12:14	R369783
Depth to water from measuring point	*	0		**5.96**	ft	1	08/13/2025 12:14	R369783
Elevation of groundwater surface	*	0		**531.24**	ft	1	08/13/2025 12:14	R369783
Measuring Point Elevation	*	0		**537.20**	ft	1	08/13/2025 12:14	R369783
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	08/13/2025 12:14	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**21**	NTU	1	08/13/2025 12:14	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.7**	°F	1	08/13/2025 12:14	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.71**		1	08/13/2025 12:14	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1070**	µmhos/cm @25C	1	08/13/2025 12:14	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**580**	mg/L	1	08/15/2025 13:41	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/14/2025 16:16	R369837
Chloride	NELAP	5.00		**23.3**	mg/L	10	08/14/2025 16:16	R369837
Sulfate	NELAP	10.0		**ND**	mg/L	10	08/14/2025 16:16	R369837
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.394**	mg/L	1	08/19/2025 15:23	243426
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/19/2025 15:23	243426
Boron	NELAP	0.0200		**0.0840**	mg/L	1	08/19/2025 15:23	243426
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/19/2025 15:23	243426
Calcium	NELAP	0.100		**102**	mg/L	1	08/19/2025 15:23	243426
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:23	243426
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:23	243426
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/19/2025 15:23	243426
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/19/2025 15:23	243426
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	08/18/2025 15:45	243426
Arsenic	NELAP	0.0010		**0.0389**	mg/L	5	08/19/2025 17:26	243563
Lithium	*	0.0030		**0.0066**	mg/L	5	08/15/2025 13:18	243426
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 13:18	243426
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2025 13:18	243426
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 16:15	243437

PRELIMINARY REPORT

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Client: City Water, Light & Power **Work Order:** 25080110

Client Project: Ash Pond Monitoring Wells **Report Date:** 25-Aug-25

Lab ID: 25080110-010 **Client Sample ID:** AP-9

Matrix: GROUNDWATER **Collection Date:** 08/13/2025 10:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.70**	ft	1	08/13/2025 10:31	R369783
Depth to water	*	-5.00		**10.54**	ft	1	08/13/2025 10:31	R369783
Depth to water from measuring point	*	0		**13.64**	ft	1	08/13/2025 10:31	R369783
Elevation of groundwater surface	*	0		**526.66**	ft	1	08/13/2025 10:31	R369783
Measuring Point Elevation	*	0		**540.30**	ft	1	08/13/2025 10:31	R369783
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	08/13/2025 10:31	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**18**	NTU	1	08/13/2025 10:31	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.1**	°F	1	08/13/2025 10:31	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.57**		1	08/13/2025 10:31	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1150**	µmhos/cm @25C	1	08/13/2025 10:31	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**638**	mg/L	1	08/15/2025 13:41	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/14/2025 19:00	R369837
Chloride	NELAP	5.00		**24.4**	mg/L	10	08/14/2025 19:00	R369837
Sulfate	NELAP	10.0		**15.9**	mg/L	10	08/14/2025 19:00	R369837
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.492**	mg/L	1	08/19/2025 15:24	243426
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/19/2025 15:24	243426
Boron	NELAP	0.0200		**0.0990**	mg/L	1	08/19/2025 15:24	243426
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/19/2025 15:24	243426
Calcium	NELAP	0.100		**112**	mg/L	1	08/19/2025 15:24	243426
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:24	243426
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:24	243426
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/19/2025 15:24	243426
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/19/2025 15:24	243426
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	08/18/2025 15:51	243426
Arsenic	NELAP	0.0010		**0.0013**	mg/L	5	08/19/2025 17:32	243563
Lithium	*	0.0030		**0.0057**	mg/L	5	08/15/2025 13:23	243426
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 13:23	243426
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2025 13:23	243426
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 16:22	243437

PRELIMINARY REPORT

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Client: City Water, Light & Power **Work Order:** 25080110

Client Project: Ash Pond Monitoring Wells **Report Date:** 25-Aug-25

Lab ID: 25080110-011 **Client Sample ID:** AP-10

Matrix: GROUNDWATER **Collection Date:** 08/13/2025 11:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**499.43**	ft	1	08/13/2025 11:32	R369783
Depth to water	*	-5.00		**1.79**	ft	1	08/13/2025 11:32	R369783
Depth to water from measuring point	*	0		**4.89**	ft	1	08/13/2025 11:32	R369783
Elevation of groundwater surface	*	0		**532.61**	ft	1	08/13/2025 11:32	R369783
Measuring Point Elevation	*	0		**537.50**	ft	1	08/13/2025 11:32	R369783
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	08/13/2025 11:32	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**12**	NTU	1	08/13/2025 11:32	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.6**	°F	1	08/13/2025 11:32	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.52**		1	08/13/2025 11:32	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1390**	µmhos/cm @25C	1	08/13/2025 11:32	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**834**	mg/L	1	08/15/2025 13:41	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/14/2025 16:28	R369837
Chloride	NELAP	5.00		**25.4**	mg/L	10	08/14/2025 16:28	R369837
Sulfate	NELAP	10.0		**96.7**	mg/L	10	08/14/2025 16:28	R369837
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.675**	mg/L	1	08/19/2025 15:26	243426
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/19/2025 15:26	243426
Boron	NELAP	0.0200		**4.25**	mg/L	1	08/19/2025 15:26	243426
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/19/2025 15:26	243426
Calcium	NELAP	0.100		**158**	mg/L	1	08/19/2025 15:26	243426
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:26	243426
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:26	243426
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/19/2025 15:26	243426
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/19/2025 15:26	243426
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	08/18/2025 15:56	243426
Arsenic	NELAP	0.0010		**0.0012**	mg/L	5	08/20/2025 8:27	243563
Lithium	*	0.0030		**0.0092**	mg/L	5	08/15/2025 13:29	243426
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 13:29	243426
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2025 13:29	243426
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 16:24	243437

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-012
Client Sample ID: AP-11
Matrix: GROUNDWATER
Collection Date: 08/12/2025 10:44

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.15**	ft	1	08/12/2025 10:44	R369783
Depth to water	*	-5.00		**12.89**	ft	1	08/12/2025 10:44	R369783
Depth to water from measuring point	*	0		**15.69**	ft	1	08/12/2025 10:44	R369783
Elevation of groundwater surface	*	0		**522.41**	ft	1	08/12/2025 10:44	R369783
Measuring Point Elevation	*	0		**538.10**	ft	1	08/12/2025 10:44	R369783
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	08/12/2025 10:44	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	08/12/2025 10:44	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**77.7**	°F	1	08/12/2025 10:44	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.34**		1	08/12/2025 10:44	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1010**	µmhos/cm @25C	1	08/12/2025 10:44	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**756**	mg/L	1	08/14/2025 16:05	R369886
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 15:11	R369781
Chloride	NELAP	5.00		**127**	mg/L	10	08/13/2025 15:11	R369781
Sulfate	NELAP	10.0		**85.7**	mg/L	10	08/13/2025 15:11	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.152**	mg/L	1	08/14/2025 17:25	243361
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 17:25	243361
Boron	NELAP	0.0200		**0.228**	mg/L	1	08/14/2025 17:25	243361
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 17:25	243361
Calcium	NELAP	0.100		**153**	mg/L	1	08/14/2025 17:25	243361
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:25	243361
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:25	243361
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 17:25	243361
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 17:25	243361
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 12:37	243361
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 1:45	243361
Lithium	*	0.0030		**0.0057**	mg/L	5	08/18/2025 12:37	243361
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 12:37	243361
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 12:37	243361
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:16	243378

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-013
Client Sample ID: AP-12
Matrix: GROUNDWATER
Collection Date: 08/12/2025 11:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**510.30**	ft	1	08/12/2025 11:27	R369783
Depth to water	*	-5.00		**15.13**	ft	1	08/12/2025 11:27	R369783
Depth to water from measuring point	*	0		**18.03**	ft	1	08/12/2025 11:27	R369783
Elevation of groundwater surface	*	0		**522.67**	ft	1	08/12/2025 11:27	R369783
Measuring Point Elevation	*	0		**540.70**	ft	1	08/12/2025 11:27	R369783
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	08/12/2025 11:27	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**82**	NTU	1	08/12/2025 11:27	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**73.9**	°F	1	08/12/2025 11:27	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.38**		1	08/12/2025 11:27	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**951**	µmhos/cm @25C	1	08/12/2025 11:27	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1380**	mg/L	1	08/14/2025 16:05	R369886
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 15:23	R369781
Chloride	NELAP	5.00		**119**	mg/L	10	08/13/2025 15:23	R369781
Sulfate	NELAP	10.0		**488**	mg/L	10	08/13/2025 15:23	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0561**	mg/L	1	08/14/2025 17:40	243361
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 17:40	243361
Boron	NELAP	0.0200		**0.0255**	mg/L	1	08/14/2025 17:40	243361
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 17:40	243361
Calcium	NELAP	0.100		**226**	mg/L	1	08/14/2025 17:40	243361
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:40	243361
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/15/2025 18:15	243361
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 17:40	243361
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 17:40	243361
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 12:43	243361
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 12:43	243361
Lithium	*	0.0030		**0.0060**	mg/L	5	08/18/2025 12:43	243361
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 12:43	243361
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 12:43	243361
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:18	243378

PRELIMINARY REPORT

A preliminary report contains data that is incomplete or data that has not been fully validated. Caution should be exercised in the use of any data presented, as final reported results may not reflect the values presented.

Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-014
Client Sample ID: AP-13
Matrix: GROUNDWATER
Collection Date: 08/13/2025 9:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.00**	ft	1	08/13/2025 9:53	R369783
Depth to water	*	-5.00		**15.25**	ft	1	08/13/2025 9:53	R369783
Depth to water from measuring point	*	0		**18.65**	ft	1	08/13/2025 9:53	R369783
Elevation of groundwater surface	*	0		**523.35**	ft	1	08/13/2025 9:53	R369783
Measuring Point Elevation	*	0		**542.00**	ft	1	08/13/2025 9:53	R369783
Measuring Point Height Above Land Surface	*	0		**3.40**	ft	1	08/13/2025 9:53	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**37**	NTU	1	08/13/2025 9:53	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**74.3**	°F	1	08/13/2025 9:53	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.43**		1	08/13/2025 9:53	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**763**	µmhos/cm @25C	1	08/13/2025 9:53	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**630**	mg/L	1	08/15/2025 13:42	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/14/2025 16:40	R369837
Chloride	NELAP	5.00		**29.4**	mg/L	10	08/14/2025 16:40	R369837
Sulfate	NELAP	10.0		**104**	mg/L	10	08/14/2025 16:40	R369837
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.142**	mg/L	1	08/19/2025 15:35	243426
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/19/2025 15:35	243426
Boron	NELAP	0.0200		**0.0566**	mg/L	1	08/19/2025 15:35	243426
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/19/2025 15:35	243426
Calcium	NELAP	0.100		**109**	mg/L	1	08/19/2025 15:35	243426
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:35	243426
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:35	243426
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/19/2025 15:35	243426
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/19/2025 15:35	243426
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	08/18/2025 16:52	243426
Arsenic	NELAP	0.0010		**0.0020**	mg/L	5	08/19/2025 18:29	243563
Lithium	*	0.0030		**0.0110**	mg/L	5	08/15/2025 13:34	243426
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 13:34	243426
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2025 13:34	243426
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 16:26	243437

PRELIMINARY REPORT

A preliminary report contains data that is incomplete or data that has not been fully validated. Caution should be exercised in the use of any data presented, as final reported results may not reflect the values presented.

Client: City Water, Light & Power **Work Order:** 25080110

Client Project: Ash Pond Monitoring Wells **Report Date:** 25-Aug-25

Lab ID: 25080110-015 **Client Sample ID:** AP-14

Matrix: GROUNDWATER **Collection Date:** 08/13/2025 10:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**508.40**	ft	1	08/13/2025 10:54	R369783
Depth to water	*	-5.00		**0.42**	ft	1	08/13/2025 10:54	R369783
Depth to water from measuring point	*	0		**3.22**	ft	1	08/13/2025 10:54	R369783
Elevation of groundwater surface	*	0		**536.38**	ft	1	08/13/2025 10:54	R369783
Measuring Point Elevation	*	0		**539.60**	ft	1	08/13/2025 10:54	R369783
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	08/13/2025 10:54	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**12**	NTU	1	08/13/2025 10:54	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**84.7**	°F	1	08/13/2025 10:54	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.71**		1	08/13/2025 10:54	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1120**	µmhos/cm @25C	1	08/13/2025 10:54	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1940**	mg/L	1	08/15/2025 13:42	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/14/2025 16:51	R369837
Chloride	NELAP	5.00		**105**	mg/L	10	08/14/2025 16:51	R369837
Sulfate	NELAP	10.0		**926**	mg/L	10	08/14/2025 16:51	R369837
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.0463**	mg/L	1	08/19/2025 15:37	243426
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/19/2025 15:37	243426
Boron	NELAP	0.200		**21.9**	mg/L	10	08/20/2025 12:39	243563
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/19/2025 15:37	243426
Calcium	NELAP	0.100		**277**	mg/L	1	08/19/2025 15:37	243426
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:37	243426
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:37	243426
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/19/2025 15:37	243426
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/19/2025 15:37	243426
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	08/18/2025 16:58	243426
Arsenic	NELAP	0.0010		**0.0011**	mg/L	5	08/20/2025 8:32	243563
Lithium	*	0.0030		**0.0068**	mg/L	5	08/15/2025 13:40	243426
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 13:40	243426
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2025 13:40	243426
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 16:29	243437

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-016
Client Sample ID: T-1
Matrix: GROUNDWATER
Collection Date: 08/12/2025 13:16

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**512.70**	ft	1	08/12/2025 13:16	R369783
Depth to water	*	-5.00		**14.30**	ft	1	08/12/2025 13:16	R369783
Depth to water from measuring point	*	0		**14.63**	ft	1	08/12/2025 13:16	R369783
Elevation of groundwater surface	*	0		**521.02**	ft	1	08/12/2025 13:16	R369783
Measuring Point Elevation	*	0		**535.65**	ft	1	08/12/2025 13:16	R369783
Measuring Point Height Above Land Surface	*	0		**0.33**	ft	1	08/12/2025 13:16	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**36**	NTU	1	08/12/2025 13:16	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**75.6**	°F	1	08/12/2025 13:16	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.46**		1	08/12/2025 13:16	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1070**	µmhos/cm @25C	1	08/12/2025 13:16	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**950**	mg/L	1	08/14/2025 16:05	R369886
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 15:34	R369781
Chloride	NELAP	5.00		**233**	mg/L	10	08/13/2025 15:34	R369781
Sulfate	NELAP	10.0		**151**	mg/L	10	08/13/2025 15:34	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0747**	mg/L	1	08/14/2025 17:41	243361
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 17:41	243361
Boron	NELAP	0.0200		**0.173**	mg/L	1	08/14/2025 17:41	243361
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 17:41	243361
Calcium	NELAP	0.100		**172**	mg/L	1	08/14/2025 17:41	243361
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:41	243361
Cobalt	NELAP	0.0050		**0.0063**	mg/L	1	08/14/2025 17:41	243361
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 17:41	243361
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 17:41	243361
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 1:07	243361
Arsenic	NELAP	0.0010		**0.0016**	mg/L	5	08/18/2025 12:49	243361
Lithium	*	0.0030		**0.0177**	mg/L	5	08/18/2025 12:49	243361
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 12:49	243361
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 12:49	243361
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:26	243378

PRELIMINARY REPORT

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Client: City Water, Light & Power **Work Order:** 25080110

Client Project: Ash Pond Monitoring Wells **Report Date:** 25-Aug-25

Lab ID: 25080110-017 **Client Sample ID:** T-2

Matrix: GROUNDWATER **Collection Date:** 08/12/2025 12:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.18**	ft	1	08/12/2025 12:20	R369783
Depth to water	*	-5.00		**23.32**	ft	1	08/12/2025 12:20	R369783
Depth to water from measuring point	*	0		**25.72**	ft	1	08/12/2025 12:20	R369783
Elevation of groundwater surface	*	0		**523.90**	ft	1	08/12/2025 12:20	R369783
Measuring Point Elevation	*	0		**549.62**	ft	1	08/12/2025 12:20	R369783
Measuring Point Height Above Land Surface	*	0		**2.40**	ft	1	08/12/2025 12:20	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.4**	NTU	1	08/12/2025 12:20	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**72.7**	°F	1	08/12/2025 12:20	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.51**		1	08/12/2025 12:20	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**905**	µmhos/cm @25C	1	08/12/2025 12:20	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1490**	mg/L	1	08/14/2025 16:05	R369886
Stable weight could not be achieved after multiple drying, cooling, and weighing. Lowest final weight reported.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 15:46	R369781
Chloride	NELAP	5.00		**509**	mg/L	10	08/13/2025 15:46	R369781
Sulfate	NELAP	10.0		**136**	mg/L	10	08/13/2025 15:46	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.232**	mg/L	1	08/14/2025 17:42	243361
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 17:42	243361
Boron	NELAP	0.0200		**0.0504**	mg/L	1	08/14/2025 17:42	243361
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 17:42	243361
Calcium	NELAP	0.100		**231**	mg/L	1	08/14/2025 17:42	243361
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:42	243361
Cobalt	NELAP	0.0050		**0.0062**	mg/L	1	08/14/2025 17:42	243361
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 17:42	243361
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 17:42	243361
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 12:56	243361
Arsenic	NELAP	0.0010		**0.0068**	mg/L	5	08/15/2025 1:39	243361
Lithium	*	0.0030		**0.0342**	mg/L	5	08/18/2025 12:56	243361
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 12:56	243361
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 12:56	243361
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:28	243378

PRELIMINARY REPORT

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Client: City Water, Light & Power **Work Order:** 25080110

Client Project: Ash Pond Monitoring Wells **Report Date:** 25-Aug-25

Lab ID: 25080110-018 **Client Sample ID:** T-4

Matrix: GROUNDWATER **Collection Date:** 08/13/2025 11:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**521.52**	ft	1	08/13/2025 11:54	R369783
Depth to water	*	-5.00		**15.87**	ft	1	08/13/2025 11:54	R369783
Depth to water from measuring point	*	0		**18.25**	ft	1	08/13/2025 11:54	R369783
Elevation of groundwater surface	*	0		**530.69**	ft	1	08/13/2025 11:54	R369783
Measuring Point Elevation	*	0		**548.94**	ft	1	08/13/2025 11:54	R369783
Measuring Point Height Above Land Surface	*	0		**2.38**	ft	1	08/13/2025 11:54	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**32**	NTU	1	08/13/2025 11:54	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.4**	°F	1	08/13/2025 11:54	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.60**		1	08/13/2025 11:54	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**607**	µmhos/cm @25C	1	08/13/2025 11:54	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**370**	mg/L	1	08/15/2025 13:42	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/14/2025 17:03	R369837
Chloride	NELAP	5.00		**ND**	mg/L	10	08/14/2025 17:03	R369837
Sulfate	NELAP	10.0		**76.7**	mg/L	10	08/14/2025 17:03	R369837
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.0456**	mg/L	1	08/19/2025 15:38	243426
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/19/2025 15:38	243426
Boron	NELAP	0.0200		**0.0504**	mg/L	1	08/19/2025 15:38	243426
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/19/2025 15:38	243426
Calcium	NELAP	0.100		**61.9**	mg/L	1	08/19/2025 15:38	243426
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:38	243426
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:38	243426
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/19/2025 15:38	243426
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/19/2025 15:38	243426
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	08/18/2025 17:03	243426
Arsenic	NELAP	0.0010		**0.0038**	mg/L	5	08/19/2025 18:40	243563
Lithium	*	0.0030		**0.0130**	mg/L	5	08/15/2025 13:45	243426
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 13:45	243426
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2025 13:45	243426
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 16:31	243437

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-019
Client Sample ID: T-5
Matrix: GROUNDWATER
Collection Date: 08/13/2025 11:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**518.32**	ft	1	08/13/2025 11:19	R369783
Depth to water	*	-5.00		**7.81**	ft	1	08/13/2025 11:19	R369783
Depth to water from measuring point	*	0		**10.32**	ft	1	08/13/2025 11:19	R369783
Elevation of groundwater surface	*	0		**530.34**	ft	1	08/13/2025 11:19	R369783
Measuring Point Elevation	*	0		**540.66**	ft	1	08/13/2025 11:19	R369783
Measuring Point Height Above Land Surface	*	0		**2.51**	ft	1	08/13/2025 11:19	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	08/13/2025 11:19	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**65.9**	°F	1	08/13/2025 11:19	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.80**		1	08/13/2025 11:19	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**616**	µmhos/cm @25C	1	08/13/2025 11:19	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**392**	mg/L	1	08/15/2025 13:52	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/14/2025 17:15	R369837
Chloride	NELAP	5.00		**ND**	mg/L	10	08/14/2025 17:15	R369837
Sulfate	NELAP	10.0		**31.3**	mg/L	10	08/14/2025 17:15	R369837
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.0658**	mg/L	1	08/19/2025 15:40	243426
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/19/2025 15:40	243426
Boron	NELAP	0.0200		**0.0917**	mg/L	1	08/19/2025 15:40	243426
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/19/2025 15:40	243426
Calcium	NELAP	0.100		**73.3**	mg/L	1	08/19/2025 15:40	243426
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:40	243426
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:40	243426
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/19/2025 15:40	243426
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/19/2025 15:40	243426
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	08/18/2025 17:09	243426
Arsenic	NELAP	0.0010		**0.0014**	mg/L	5	08/19/2025 18:46	243563
Lithium	*	0.0030		**0.0103**	mg/L	5	08/15/2025 13:51	243426
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 13:51	243426
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2025 13:51	243426
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 16:33	243437

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-020
Client Sample ID: T-6
Matrix: GROUNDWATER
Collection Date: 08/13/2025 10:42

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**494.70**	ft	1	08/13/2025 10:42	R369783
Depth to water	*	-5.00		**5.79**	ft	1	08/13/2025 10:42	R369783
Depth to water from measuring point	*	0		**8.15**	ft	1	08/13/2025 10:42	R369783
Elevation of groundwater surface	*	0		**530.17**	ft	1	08/13/2025 10:42	R369783
Measuring Point Elevation	*	0		**538.32**	ft	1	08/13/2025 10:42	R369783
Measuring Point Height Above Land Surface	*	0		**2.36**	ft	1	08/13/2025 10:42	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**37**	NTU	1	08/13/2025 10:42	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**73.0**	°F	1	08/13/2025 10:42	R369783
SW-846 9040B								
pH, Field	*	1.00		**7.16**		1	08/13/2025 10:42	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**760**	µmhos/cm @25C	1	08/13/2025 10:42	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**412**	mg/L	1	08/15/2025 13:52	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/14/2025 18:01	R369837
Chloride	NELAP	5.00		**11.8**	mg/L	10	08/14/2025 18:01	R369837
Sulfate	NELAP	10.0		**15.5**	mg/L	10	08/14/2025 18:01	R369837
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.116**	mg/L	1	08/19/2025 15:42	243426
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/19/2025 15:42	243426
Boron	NELAP	0.0200		**0.0428**	mg/L	1	08/19/2025 15:42	243426
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/19/2025 15:42	243426
Calcium	NELAP	0.100		**86.7**	mg/L	1	08/19/2025 15:42	243426
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:42	243426
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/19/2025 15:42	243426
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/19/2025 15:42	243426
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/19/2025 15:42	243426
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	B	**< 0.0010**	mg/L	5	08/18/2025 17:14	243426
Arsenic	NELAP	0.0010		**0.0086**	mg/L	5	08/19/2025 18:52	243563
Lithium	*	0.0030		**0.0066**	mg/L	5	08/15/2025 13:56	243426
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/15/2025 13:56	243426
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/15/2025 13:56	243426
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 16:40	243437

PRELIMINARY REPORT

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Client: City Water, Light & Power
Work Order: 25080110
Client Project: Ash Pond Monitoring Wells
Report Date: 25-Aug-25
Lab ID: 25080110-021
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 08/12/2025 11:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	08/12/2025 11:02	R369783
Depth to water	*	-5.00		**12.26**	ft	1	08/12/2025 11:02	R369783
Depth to water from measuring point	*	0		**15.01**	ft	1	08/12/2025 11:02	R369783
Elevation of groundwater surface	*	0		**540.59**	ft	1	08/12/2025 11:02	R369783
Measuring Point Elevation	*	0		**555.60**	ft	1	08/12/2025 11:02	R369783
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	08/12/2025 11:02	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**71**	NTU	1	08/12/2025 11:02	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.1**	°F	1	08/12/2025 11:02	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.58**		1	08/12/2025 11:02	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1600**	µmhos/cm @25C	1	08/12/2025 11:02	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1250**	mg/L	1	08/14/2025 16:05	R369886
Stable weight could not be achieved after multiple drying, cooling, and weighing. Lowest final weight reported.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 15:58	R369781
Chloride	NELAP	5.00		**37.2**	mg/L	10	08/13/2025 15:58	R369781
Sulfate	NELAP	10.0		**408**	mg/L	10	08/13/2025 15:58	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.105**	mg/L	1	08/14/2025 17:42	243361
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 17:42	243361
Boron	NELAP	0.0200	S	**9.61**	mg/L	1	08/14/2025 17:42	243361
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 17:42	243361
Calcium	NELAP	0.100	S	**205**	mg/L	1	08/14/2025 17:42	243361
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:42	243361
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:42	243361
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 17:42	243361
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 17:42	243361
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
Matrix spike control limits for Ca & B are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 13:21	243361
Arsenic	NELAP	0.0010		**0.0098**	mg/L	5	08/15/2025 2:04	243361
Lithium	*	0.0030		**0.0112**	mg/L	5	08/18/2025 13:21	243361
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 13:21	243361
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 13:21	243361
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:30	243378

PRELIMINARY REPORT

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Client: City Water, Light & Power **Work Order:** 25080110

Client Project: Ash Pond Monitoring Wells **Report Date:** 25-Aug-25

Lab ID: 25080110-022 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 08/12/2025 11:52

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	08/12/2025 11:52	R369783
Depth to water	*	-5.00		**18.10**	ft	1	08/12/2025 11:52	R369783
Depth to water from measuring point	*	0		**18.10**	ft	1	08/12/2025 11:52	R369783
Elevation of groundwater surface	*	0		**535.00**	ft	1	08/12/2025 11:52	R369783
Measuring Point Elevation	*	0		**553.10**	ft	1	08/12/2025 11:52	R369783
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	08/12/2025 11:52	R369783
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.7**	NTU	1	08/12/2025 11:52	R369783
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**74.4**	°F	1	08/12/2025 11:52	R369783
SW-846 9040B								
pH, Field	*	1.00		**6.67**		1	08/12/2025 11:52	R369783
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2000**	µmhos/cm @25C	1	08/12/2025 11:52	R369783
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1640**	mg/L	1	08/14/2025 16:05	R369886
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/13/2025 16:09	R369781
Chloride	NELAP	5.00		**36.8**	mg/L	10	08/13/2025 16:09	R369781
Sulfate	NELAP	10.0		**569**	mg/L	10	08/13/2025 16:09	R369781
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.769**	mg/L	1	08/14/2025 17:45	243361
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 17:45	243361
Boron	NELAP	0.0200		**7.95**	mg/L	1	08/14/2025 17:45	243361
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 17:45	243361
Calcium	NELAP	0.100		**272**	mg/L	1	08/14/2025 17:45	243361
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:45	243361
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:45	243361
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 17:45	243361
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 17:45	243361
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 13:02	243361
Arsenic	NELAP	0.0010		**0.0115**	mg/L	5	08/15/2025 1:58	243361
Lithium	*	0.0030		**0.0073**	mg/L	5	08/18/2025 13:02	243361
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/18/2025 13:02	243361
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/18/2025 13:02	243361
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/14/2025 15:33	243378

PRELIMINARY REPORT

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Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25080110
Report Date: 25-Aug-25

Carrier: Daniel Crump

Received By: LEH

Completed by: Laura E Henson
On: 13-Aug-25

Reviewed by: Ellie Hopkins
On: 14-Aug-25

Pages to follow: Chain of custody 4 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 4.3
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #104524. - lhenson - 8/13/2025 8:47:33 AM

Additional nitric acid (104844) was needed in RW-3 and G120 upon arrival at the laboratory. - lhenson - 8/13/2025 8:47:35 AM

Cooler #2 = 5.3C, Cooler #3 = 4.7, and Cooler #4 = 3.7C (LTG #5). - LH 8/13/25

Samples were received on 8/13/25 at 1436 on ice [12.7, 11.9 and 15.3C - LTG#5]. pH strip #104524. - amberdilallo - 8/14/2025 7:41:56 AM

PRELIMINARY REPORT

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25080110

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

5.3, 4.7, 3.7

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 4.3 °C 5

Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY

LAB NOTES: PM 104524

added HNO3 (104544) to RW3 and G120 LH 8/13/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No

Are these samples known to be hazardous? [ ] Yes [✓] No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:

*elevations, pH, conductivity, temperature

**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

Quarterly monitoring

PROJECT NAME/NUMBER

Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

Justin Colp

RESULTS REQUESTED

[✓] Standard [ ] 1-2 Day (100% Surcharge)

[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25080110-001	RW-3	8-12-25 / 1332	Groundwater	1	4								✓	✓	✓	✓	✓	✓
-002	AP-1	1155	Groundwater	1	4								✓	✓	✓	✓	✓	✓
-003	AP-2	1226	Groundwater	1	4								✓	✓	✓	✓	✓	✓
-004	AP-3	1258	Groundwater	1	4								✓	✓	✓	✓	✓	✓
-005	AP-4	1040	Groundwater	1	4								✓	✓	✓	✓	✓	✓
-006	AP-5	956	Groundwater	1	4								✓	✓	✓	✓	✓	✓
-007	AP-6	1120	Groundwater	1	4								✓	✓	✓	✓	✓	✓
-008	AP-7		Groundwater	1	4								✓	✓	✓	✓	✓	✓
-009	AP-8		Groundwater	1	4								✓	✓	✓	✓	✓	✓
-010	AP-9		Groundwater	1	4								✓	✓	✓	✓	✓	✓
-011	AP-10		Groundwater	1	4								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	8-12 / 1540		8/12/25 1540

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25080110

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Bret Gillihan/Patterson

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25080110-012	AP-11	8-12-25 1044	Groundwater	1	4								✔	✔	✔	✔	✔	✔
-013	AP-12	8-12-25 1127	Groundwater	1	4								✔	✔	✔	✔	✔	✔
-014	AP-13		Groundwater	1	4								✔	✔	✔	✔	✔	✔
-015	AP-14		Groundwater	1	4								✔	✔	✔	✔	✔	✔
-016	T-1	8-12-25 1316	Groundwater	1	4								✔	✔	✔	✔	✔	✔
-017	T-2	8-12-25 1220	Groundwater	1	4								✔	✔	✔	✔	✔	✔
-018	T-4		Groundwater	1	4								✔	✔	✔	✔	✔	✔
-019	T-5		Groundwater	1	4								✔	✔	✔	✔	✔	✔
-020	T-6		Groundwater	1	4								✔	✔	✔	✔	✔	✔
-021	AW-1	8/12/25 1102	Groundwater	1	4								✔	✔	✔	✔	✔	✔
-022	G120	8/12/25 1157	Groundwater	1	4								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	8-12/1540		8/12/25 1540

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 25080110

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

12.7, 11.9

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 15.3 °C 5
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: 104524 8/14/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Allison Lampe

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25080110-001	RW-3		Groundwater	1	4								✓	✓	✓	✓	✓	✓
-002	AP-1		Groundwater	1	4								✓	✓	✓	✓	✓	✓
-003	AP-2		Groundwater	1	4								✓	✓	✓	✓	✓	✓
-004	AP-3		Groundwater	1	4								✓	✓	✓	✓	✓	✓
-005	AP-4		Groundwater	1	4								✓	✓	✓	✓	✓	✓
-006	AP-5		Groundwater	1	4								✓	✓	✓	✓	✓	✓
-007	AP-6		Groundwater	1	4								✓	✓	✓	✓	✓	✓
-008	AP-7	8-13-25 956	Groundwater	1	4								✓	✓	✓	✓	✓	✓
-009	AP-8	8-13-25 1214	Groundwater	1	4								✓	✓	✓	✓	✓	✓
-010	AP-9	8-13-25 1035	Groundwater	1	4								✓	✓	✓	✓	✓	✓
-011	AP-10	8-13-25 1132	Groundwater	1	4								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Allison Lampe	8-13-25 236	Jordan DeLaRosa	8/13/25 1436

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 25080110

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☑ ~~ICE~~ ☐ BLUE ICE ☐ NO ICE 15.3 °C 5
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:
**corrected collection times: T-4 11:54, T-5 11:19, T-6 10:42. SAH 8/18/25

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Bet Gillihan

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
25080110-012	AP-11		Groundwater	1	4								✔	✔	✔	✔	✔	✔
-013	AP-12		Groundwater	1	4								✔	✔	✔	✔	✔	✔
-014	AP-13	8-13-25 953	Groundwater	1	4								✔	✔	✔	✔	✔	✔
-015	AP-14	8-13-25 1054	Groundwater	1	4								✔	✔	✔	✔	✔	✔
-016	T-1		Groundwater	1	4								✔	✔	✔	✔	✔	✔
-017	T-2		Groundwater	1	4								✔	✔	✔	✔	✔	✔
-018	T-4 **	8-13-25 1135	Groundwater	1	4								✔	✔	✔	✔	✔	✔
-019	T-5 **	8-13-25 1100	Groundwater	1	4								✔	✔	✔	✔	✔	✔
-020	T-6 **	8-13-25 1026	Groundwater	1	4								✔	✔	✔	✔	✔	✔
-021	AW-1		Groundwater	1	4								✔	✔	✔	✔	✔	✔
-022	G120		Groundwater	1	4								✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
Ellen Boyce	8-13-25 2336	Amber Wells	8/13/25 1436

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Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25080110
Monitoring Point: RW-3
Sample ID: 001
Date (s): 8/12/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: Danny Crump — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 87 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/12/25 1:11 PM
Static Water Level: 10.57 feet below TOC
Total Depth: 44.01 feet below TOC
Water Column: 33.44 feet

Purging Activities

Purged By: JC — Purge Date: 8/12/2025
Purge Method: Bladder Pump — Well Diameter: 2"
Purge Volume Calculation (L): 33.44 ft. x 0.022 = 0.74 L x 3 Vol. = 2.22 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:12	0.0	250	purge start time						
13:17	1.3	↓	7.07	798.90	15.60	2.83	50.20	19.30	
13:20	2.0		7.00	790.90	15.50	1.83	32.90	20.87	
13:23	2.8		6.97	790.00	15.29	1.42	19.30	8.51	
13:26	3.5		6.94	789.40	15.35	1.18	8.40	8.14	
13:29	4.3		6.93	792.30	15.36	1.04	-1.60	11.57	
13:32	5.0		6.92	794.40	15.17	0.94	-10.80	13.43	

Sampling Activities

Sampled By: JC — Sample Date/Time: 8/12/2025 13:32
Sample Method: Low Flow — Sample Equipment: Bladder Pump
Sample Parameters: 6.92 pH — 794.40 Spec. Cond. — 15.17 Temp
Field Filtered: Yes — Filter Type: Inline Disposable
Water Level: 17.62 feet below TOC — Drawdown: 7.05 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Justin Colp — **Date:** 8/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-1
Project Location:	Springfield, IL	**Sample ID:**	002
W.O. Number (s):	25080110	**Date (s):**	8/12/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Danny Crump — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 86 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	No

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/12/25 11:34 AM

Static Water Level: 11.22 feet below TOC

Total Depth: 31.08 feet below TOC

Water Column: 19.86 feet

Purging Activities

Purged By: JC — Purge Date: 8/12/2025

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 19.86 ft. x 0.022 = 0.44 L x 3 Vol. = 1.32 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:35	0.0	250	purge start time						
11:40	1.3	↓	6.46	1,809.80	16.79	2.44	103.50	16.48	
11:43	2.0		6.44	1,883.30	16.76	1.63	76.10	17.05	
11:46	2.8		6.43	1,970.00	16.58	1.29	48.10	19.77	
11:49	3.5		6.42	2,021.40	16.60	1.09	26.30	22.55	
11:52	4.3		6.43	2,076.80	16.55	0.97	11.20	7.96	
11:55	5.0		6.42	2,104.50	16.41	0.88	0.50	10.98	

Sampling Activities

Sampled By: JC — Sample Date/Time: 8/12/2025 11:55

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.42 pH — 2,104.50 Spec. Cond. — 16.41 Temp

Field Filtered: No — Filter Type:

Water Level: 11.55 feet below TOC — Drawdown: 0.33 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Justin Colp — **Date:** 8/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-2
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	25080110	**Date (s):**	8/12/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 87 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/12/25 12:06 PM

Static Water Level: 8.60 feet below TOC

Total Depth: 21.33 feet below TOC

Water Column: 12.73 feet

Purging Activities

Purged By: JC Purge Date: 8/12/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 12.73 ft. x 0.022 = 0.28 L x 3 Vol. = 0.84 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:07	0.0	263	purge start time						
12:14	1.8	↓	6.39	1,602.30	17.04	1.92	78.10	17.42	
12:17	2.6		6.35	1,603.90	16.92	1.43	75.60	17.06	
12:20	3.4		6.33	1,603.30	16.56	1.18	73.70	19.29	
12:23	4.2		6.32	1,603.10	16.48	1.03	72.20	6.81	
12:26	5.0		6.30	1,606.10	16.68	0.93	70.80	8.43	

Sampling Activities

Sampled By: JC Sample Date/Time: 8/12/2025 12:26

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.30 pH 1,606.10 Spec. Cond. 16.68 Temp

Field Filtered: No Filter Type:

Water Level: 8.80 feet below TOC Drawdown: 0.20 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Justin Colp **Date:** 8/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-3
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	25080110	**Date (s):**	8/12/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Danny Crump — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 87 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/12/25 12:34 PM

Static Water Level: 8.73 feet below TOC

Total Depth: 20.80 feet below TOC

Water Column: 12.07 feet

Purging Activities

Purged By: JC — Purge Date: 8/12/2025

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 12.07 ft. x 0.022 = 0.27 L x 3 Vol. = 0.81 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.50 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:36	0.0	250	purge start time						
12:43	1.8	↓	6.42	1,622.60	17.60	2.04	96.00	5.57	
12:46	2.5		6.39	1,624.00	17.43	1.51	80.40	4.97	
12:49	3.3		6.38	1,625.40	17.53	1.22	64.50	4.11	
12:52	4.0		6.38	1,625.50	17.31	1.05	50.40	3.26	
12:55	4.8		6.37	1,625.40	17.24	0.94	38.90	3.14	
12:58	5.5		6.36	1,624.50	17.32	0.86	29.80	2.90	

Sampling Activities

Sampled By: JC — Sample Date/Time: 8/12/2025 12:58

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.36 pH — 1,624.50 Spec. Cond. — 17.32 Temp

Field Filtered: No — Filter Type:

Water Level: 9.71 feet below TOC — Drawdown: 0.98 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Justin Colp — **Date:** 8/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-4
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	25080110	**Date (s):**	8/12/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Danny Crump — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 82 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/12/25 10:12 AM

Static Water Level: 10.86 feet below TOC

Total Depth: 60.41 feet below TOC

Water Column: 49.55 feet

Purging Activities

Purged By: JC — Purge Date: 8/12/2025

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 49.55 ft. x 0.022 = 1.09 L x 3 Vol. = 3.27 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.50 L

Physical appearance of purge water: Cloudy — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:13	0.0	241	purge start time						
10:22	2.2	↓	6.66	992.60	19.67	2.38	136.80	133.52	
10:25	2.9		6.65	995.50	19.62	1.78	89.50	167.82	
10:28	3.6		6.65	997.50	19.65	1.41	49.20	164.04	
10:31	4.3		6.65	999.30	19.62	1.19	21.50	168.64	
10:34	5.1		6.65	999.40	19.55	1.06	2.80	119.36	
10:37	5.8		6.65	999.70	19.60	0.96	-10.60	119.27	
10:40	6.5		6.64	999.90	19.70	0.90	-20.80	115.89	

Sampling Activities

Sampled By: JC — Sample Date/Time: 8/12/2025 10:40

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.64 pH — 999.90 Spec. Cond. — 19.70 Temp

Field Filtered: No — Filter Type:

Water Level: 12.10 feet below TOC — Drawdown: 1.24 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Justin Colp — **Date:** 8/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-5
Project Location:	Springfield, IL	**Sample ID:**	006
W.O. Number (s):	25080110	**Date (s):**	8/12/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 81 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/12/25 9:28 AM

Static Water Level: 15.94 feet below TOC

Total Depth: 31.27 feet below TOC

Water Column: 15.33 feet

Purging Activities

Purged By: JC Purge Date: 8/12/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 15.33 ft. x 0.022 = 0.34 L x 3 Vol. = 1.02 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 8.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:29	0.0	296	purge start time						
9:32	0.9	↓	6.61	854.60	15.72	4.28	192.80	7.48	
9:35	1.8		6.55	857.20	15.53	2.72	196.90	6.29	
9:38	2.7		6.55	861.90	15.34	2.12	199.20	6.06	
9:41	3.6		6.57	864.70	15.26	1.84	200.70	7.92	
9:44	4.4		6.59	865.30	15.30	1.67	201.20	10.44	
9:47	5.3		6.61	867.30	15.31	1.55	201.40	15.13	
9:50	6.2		6.62	867.50	15.22	1.47	202.40	33.56	
9:53	7.1		6.63	868.30	15.19	1.41	203.70	11.51	
9:56	8.0		6.64	867.70	15.16	1.37	204.60	24.57	

Sampling Activities

Sampled By: JC Sample Date/Time: 8/12/2025 9:56

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.64 pH 867.70 Spec. Cond. 15.16 Temp

Field Filtered: No Filter Type:

Water Level: 18.27 feet below TOC Drawdown: 2.33 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864
- Lid on protective cover won't close.

Form Completed By: Justin Colp **Date:** 8/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-6
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	25080110	**Date (s):**	8/12/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Danny Crump — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 85 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/12/25 10:57 AM

Static Water Level: 8.13 feet below TOC

Total Depth: 39.62 feet below TOC

Water Column: 31.49 feet

Purging Activities

Purged By: JC — Purge Date: 8/12/2025

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 31.49 ft. x 0.022 = 0.69 L x 3 Vol. = 2.07 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:58	0.0	227	purge start time						
11:05	1.6	↓	7.05	814.60	15.62	1.87	64.10	18.67	
11:08	2.3		6.99	817.10	15.59	1.44	62.10	22.34	
11:11	3.0		6.95	817.50	15.52	1.21	60.10	17.42	
11:14	3.6		6.92	818.40	15.47	1.07	58.00	16.04	
11:17	4.3		6.91	817.30	15.45	0.97	55.40	9.09	
11:20	5.0		6.89	818.90	15.39	0.90	52.50	7.08	

Sampling Activities

Sampled By: JC — Sample Date/Time: 8/12/2025 11:20

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.89 pH — 818.90 Spec. Cond. — 15.39 Temp

Field Filtered: No — Filter Type:

Water Level: 17.81 feet below TOC — Drawdown: 9.68 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Justin Colp — **Date:** 8/12/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25080110
Monitoring Point: AP-7
Sample ID: 008
Date (s): 8/13/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 82 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/13/25 9:56 AM
Static Water Level: 11.71 feet below TOC
Total Depth: 42.52 feet below TOC
Water Column: 30.81 feet

Purging Activities

Purged By: AL Purge Date: 8/13/2025
Purge Method: Bladder Pump Well Diameter: 2"
Purge Volume Calculation (L): 30.81 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Clear Odor: Moderate Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:56	0.0	364	purge start time						
9:58	0.7	↓	7.10	897.80	15.70	0.44	-121.80	73.22	
10:01	1.8		7.11	900.40	15.65	0.42	-126.10	78.01	
10:04	2.9		7.12	903.20	15.82	0.40	-129.10	65.72	
10:07	4.0		7.12	908.30	15.68	0.39	-131.50	98.20	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/13/2025 10:07
Sample Method: Low Flow Sample Equipment: Bladder Pump
Sample Parameters: 7.12 pH 908.30 Spec. Cond. 15.68 Temp
Field Filtered: No Filter Type:
Water Level: 16.35 feet below TOC Drawdown: 4.64 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe Date: 8/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-8
Project Location:	Springfield, IL	**Sample ID:**	009
W.O. Number (s):	25080110	**Date (s):**	8/13/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 82 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/13/25 11:47 AM

Static Water Level: 5.96 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 33.64 feet

Purging Activities

Purged By: JC Purge Date: 8/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 33.64 ft. x 0.022 = 0.74 L x 3 Vol. = 2.22 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 8.00 L

Physical appearance of purge water: Clear Odor: Moderate Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:48	0.0	308	purge start time						
11:56	2.5	↓	6.78	1,072.50	17.37	2.36	47.10	27.64	
11:59	3.4		6.75	1,072.40	17.48	1.91	28.10	35.01	
12:02	4.3		6.74	1,073.20	17.31	1.67	13.70	27.08	
12:05	5.2		6.73	1,071.90	17.39	1.50	2.00	17.07	
12:08	6.2		6.72	1,072.50	17.50	1.39	-6.80	28.74	
12:11	7.1		6.72	1,073.40	17.37	1.30	-13.60	24.21	
12:14	8.0		6.71	1,074.30	17.59	1.23	-19.10	21.21	

Sampling Activities

Sampled By: JC Sample Date/Time: 8/13/2025 12:14

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.71 pH 1,074.30 Spec. Cond. 17.59 Temp

Field Filtered: No Filter Type:

Water Level: 6.38 feet below TOC Drawdown: 0.42 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Justin Colp **Date:** 8/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-9
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	25080110	**Date (s):**	8/13/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 77 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/13/25 9:38 AM

Static Water Level: 13.64 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 25.96 feet

Purging Activities

Purged By: JC Purge Date: 8/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 25.96 ft. x 0.022 = 0.57 L x 3 Vol. = 1.71 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 12.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:40	0.0	235	purge start time						
9:46	1.4	↓	6.58	1,143.50	18.23	3.47	154.00	61.09	
9:49	2.1		6.55	1,143.40	18.12	2.90	149.00	93.19	
9:52	2.8		6.55	1,148.00	17.86	2.54	138.20	43.74	
9:55	3.5		6.60	1,159.10	18.90	4.34	123.00	6.68	
9:58	4.2		6.59	1,161.00	17.02	3.46	106.30	14.03	
10:01	4.9		6.56	1,160.30	17.16	2.32	88.20	28.72	
10:04	5.6		6.58	1,159.50	17.76	3.20	74.30	3.11	
10:07	6.4		6.63	1,159.30	17.88	4.29	66.50	9.13	
10:10	7.1		6.82	1,153.60	18.14	6.08	62.30	8.03	
10:13	7.8		6.65	1,162.20	16.48	4.13	51.70	33.73	
10:16	8.5		6.60	1,155.00	16.09	2.53	39.50	22.64	
10:19	9.2		6.58	1,155.40	16.12	1.98	28.90	22.90	
10:22	9.9		6.58	1,152.40	16.11	1.71	20.00	22.52	
10:25	10.6		6.57	1,154.20	16.04	1.55	12.60	23.71	
10:28	11.3		6.57	1,155.10	16.11	1.44	6.70	23.15	
10:31	12.0		6.57	1,153.30	16.14	1.37	1.20	18.43	

Sampling Activities

Sampled By: JC Sample Date/Time: 8/13/2025 10:31

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.57 pH 1,153.30 Spec. Cond. 16.14 Temp

Field Filtered: No Filter Type:

Water Level: 18.81 feet below TOC Drawdown: 5.17 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Justin Colp **Date:** 8/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-10
Project Location:	Springfield, IL	**Sample ID:**	011
W.O. Number (s):	25080110	**Date (s):**	8/13/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Danny Crump — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 79 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/13/25 11:06 AM

Static Water Level: 4.89 feet below TOC

Total Depth: 38.07 feet below TOC

Water Column: 33.18 feet

Purging Activities

Purged By: JC — Purge Date: 8/13/2025

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 33.18 ft. x 0.022 = 0.73 L x 3 Vol. = 2.19 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.00 L

Physical appearance of purge water: Clear — Odor: Slight — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:07	0.0	280	purge start time						
11:14	2.0	↓	6.62	1,382.40	18.51	2.74	100.30	6.70	
11:17	2.8		6.57	1,386.30	18.03	2.21	85.50	6.47	
11:20	3.6		6.54	1,380.40	17.98	1.91	70.90	8.95	
11:23	4.5		6.53	1,383.90	17.90	1.71	57.20	9.13	
11:26	5.3		6.52	1,385.80	17.97	1.58	45.10	8.34	
11:29	6.2		6.52	1,382.70	17.74	1.48	34.80	8.63	
11:32	7.0		6.52	1,386.40	17.54	1.41	26.50	11.76	

Sampling Activities

Sampled By: JC — Sample Date/Time: 8/13/2025 11:32

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.52 pH — 1,386.40 Spec. Cond. — 17.54 Temp

Field Filtered: No — Filter Type:

Water Level: 5.09 feet below TOC — Drawdown: 0.20 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Justin Colp — **Date:** 8/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-11
Project Location:	Springfield, IL	**Sample ID:**	012
W.O. Number (s):	25080110	**Date (s):**	8/12/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Jeremy Rodriguez Affiliation: TekLab, Inc.

Weather Conditions

Temp: 84 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/12/25 10:24 AM

Static Water Level: 15.69 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 7.26 feet

Purging Activities

Purged By: JR Purge Date: 8/12/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.26 ft. x 0.022 = 0.16 L x 3 Vol. = 0.48 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: Slight Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:24	0.0	200	purge start time						
10:32	1.6	↓	6.22	1,056.40	23.96	2.24	94.90	10.24	
10:35	2.2		6.26	1,038.10	24.41	2.18	89.80	10.34	
10:38	2.8		6.31	1,026.00	24.76	2.17	84.40	10.81	
10:41	3.4		6.33	1,016.40	25.07	2.17	80.40	11.94	
10:44	4.0		6.34	1,009.40	25.37	2.18	77.80	12.85	

Sampling Activities

Sampled By: JR Sample Date/Time: 8/12/2025 10:44

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.34 pH 1,009.40 Spec. Cond. 25.37 Temp

Field Filtered: No Filter Type:

Water Level: 15.94 feet below TOC Drawdown: 0.25 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46868

Form Completed By: Brett Gillihan **Date:** 8/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-12
Project Location:	Springfield, IL	**Sample ID:**	013
W.O. Number (s):	25080110	**Date (s):**	8/12/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Jeremy Rodriguez Affiliation: TekLab, Inc.

Weather Conditions

Temp: 86 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/12/25 11:03 AM

Static Water Level: 18.03 feet below TOC

Total Depth: 30.40 feet below TOC

Water Column: 12.37 feet

Purging Activities

Purged By: JR Purge Date: 8/12/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 12.37 ft. x 0.022 = 0.27 L x 3 Vol. = 0.81 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Lt Gray

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:03	0.0	167	purge start time						
11:15	2.0	↓	6.38	919.10	21.63	1.57	46.50	57.46	
11:18	2.5		6.37	935.60	22.73	1.59	43.00	66.31	
11:21	3.0		6.38	947.90	23.18	1.62	39.70	75.89	
11:24	3.5		6.38	950.20	23.04	1.64	37.30	78.00	
11:27	4.0		6.38	951.40	23.26	1.63	35.30	82.48	

Sampling Activities

Sampled By: JR Sample Date/Time: 8/12/2025 11:27

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.38 pH 951.40 Spec. Cond. 23.26 Temp

Field Filtered: No Filter Type:

Water Level: 19.01 feet below TOC Drawdown: 0.98 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46868

Form Completed By: Brett Gillihan **Date:** 8/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-13
Project Location:	Springfield, IL	**Sample ID:**	014
W.O. Number (s):	25080110	**Date (s):**	8/13/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Jeremy Rodriguez Affiliation: TekLab, Inc.

Weather Conditions

Temp: 77 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/13/25 9:30 AM

Static Water Level: 18.65 feet below TOC

Total Depth: 31.00 feet below TOC

Water Column: 12.35 feet

Purging Activities

Purged By: JR Purge Date: 8/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 12.35 ft. x 0.022 = 0.27 L x 3 Vol. = 0.81 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: Slight Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:30	0.0	261	purge start time						
9:41	2.9	↓	6.39	806.30	22.60	2.47	71.70	23.29	
9:44	3.7		6.42	792.60	22.86	2.42	59.70	28.67	
9:47	4.4		6.43	781.40	23.25	2.32	49.60	30.32	
9:50	5.2		6.43	772.20	23.49	2.24	41.50	34.50	
9:53	6.0		6.43	762.80	23.52	2.15	34.80	37.20	

Sampling Activities

Sampled By: JR Sample Date/Time: 8/13/2025 9:53

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.43 pH 762.80 Spec. Cond. 23.52 Temp

Field Filtered: No Filter Type:

Water Level: 19.76 feet below TOC Drawdown: 1.11 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46868

Form Completed By: Brett Gillihan **Date:** 8/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-14
Project Location:	Springfield, IL	**Sample ID:**	015
W.O. Number (s):	25080110	**Date (s):**	8/13/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Jeremy Rodriguez Affiliation: TekLab, Inc.

Weather Conditions

Temp: 79 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing	X	
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Yes				

Groundwater Level Measurements

Date/Time Measured: 8/13/25 10:34 AM

Static Water Level: 3.22 feet below TOC

Total Depth: 31.20 feet below TOC

Water Column: 27.98 feet

Purging Activities

Purged By: JR Purge Date: 8/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 27.98 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:34	0.0	250	purge start time						
10:42	2.0	↓	6.79	1,095.20	29.34	3.69	71.40	11.59	
10:45	2.8		6.74	1,105.50	29.05	2.66	69.60	16.94	
10:48	3.5		6.72	1,097.90	28.88	1.99	68.00	18.64	
10:51	4.3		6.71	1,108.40	28.98	1.70	65.30	21.89	
10:54	5.0		6.71	1,115.40	29.26	1.59	61.50	11.84	

Sampling Activities

Sampled By: JR Sample Date/Time: 8/13/2025 10:54

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.71 pH 1,115.40 Spec. Cond. 29.26 Temp

Field Filtered: No Filter Type:

Water Level: 3.47 feet below TOC Drawdown: 0.25 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46868

Form Completed By: Brett Gillihan **Date:** 8/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-1
Project Location:	Springfield, IL	**Sample ID:**	016
W.O. Number (s):	25080110	**Date (s):**	8/12/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Jeremy Rodriguez Affiliation: TekLab, Inc.

Weather Conditions

Temp: 87 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/12/25 12:49 PM

Static Water Level: 14.63 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 8.32 feet

Purging Activities

Purged By: JR Purge Date: 8/12/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 8.32 ft. x 0.022 = 0.18 L x 3 Vol. = 0.54 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: Slight Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:49	0.0	222	purge start time						
13:04	3.3	↓	6.48	1,032.00	23.62	1.96	37.20	31.78	
13:07	4.0		6.47	1,044.50	23.81	1.95	36.30	33.26	
13:10	4.7		6.47	1,051.90	24.03	1.94	35.50	29.37	
13:13	5.3		6.46	1,061.40	24.06	1.93	35.00	32.12	
13:16	6.0		6.46	1,069.60	24.24	1.91	34.70	35.67	

Sampling Activities

Sampled By: JR Sample Date/Time: 8/12/2025 13:16

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.46 pH 1,069.60 Spec. Cond. 24.24 Temp

Field Filtered: No Filter Type:

Water Level: 15.23 feet below TOC Drawdown: 0.60 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46868

Form Completed By: Brett Gillihan **Date:** 8/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-2
Project Location:	Springfield, IL	**Sample ID:**	017
W.O. Number (s):	25080110	**Date (s):**	8/12/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Jeremy Rodriguez Affiliation: TekLab, Inc.

Weather Conditions

Temp: 87 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/12/25 12:03 PM

Static Water Level: 25.72 feet below TOC

Total Depth: 34.44 feet below TOC

Water Column: 8.72 feet

Purging Activities

Purged By: JR Purge Date: 8/12/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 8.72 ft. x 0.022 = 0.19 L x 3 Vol. = 0.57 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: Strong Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:03	0.0	235	purge start time						
12:08	1.2	↓	6.62	807.50	20.46	2.29	-36.80	6.96	
12:11	1.9		6.54	849.50	21.69	2.25	-47.90	6.27	
12:14	2.6		6.52	868.30	22.19	2.15	-56.90	5.17	
12:17	3.3		6.51	883.40	22.48	2.03	-64.10	4.74	
12:20	4.0		6.51	905.10	22.61	1.95	-70.00	4.37	

Sampling Activities

Sampled By: JR Sample Date/Time: 8/12/2025 12:20

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.51 pH 905.10 Spec. Cond. 22.61 Temp

Field Filtered: No Filter Type:

Water Level: 26.12 feet below TOC Drawdown: 0.40 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46868

Form Completed By: Brett Gillihan **Date:** 8/12/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25080110
Monitoring Point: T-4
Sample ID: 018
Date (s): 8/13/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 82 °F
Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW
Precipitation: ☑ None ☐ Light ☐ Heavy
Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/13/25 11:35 AM
Static Water Level: 18.25 feet below TOC
Total Depth: 27.42 feet below TOC
Water Column: 9.17 feet

Purging Activities

Purged By: AL Purge Date: 8/13/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 9.17 ft. x 0.022 = 0.2 L x 3 Vol. = 0.6 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 9.00 L
Physical appearance of purge water: Slightly cloudy Odor: Slight Color: gray

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:35	0.0	474	purge start time						
11:45	4.7	↓	6.62	673.60	17.40	0.65	-2.30	66.72	
11:48	6.2		6.63	661.70	17.15	0.53	-6.10	38.28	
11:51	7.6		6.62	636.80	17.55	0.49	-7.70	33.95	
11:54	9.0		6.60	607.40	17.46	0.47	-7.60	31.69	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/13/2025 11:54
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.60 pH 607.40 Spec. Cond. 17.46 Temp
Field Filtered: No Filter Type:
Water Level: 20.10 feet below TOC Drawdown: 1.85 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe **Date:** 8/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25080110
Monitoring Point: T-5
Sample ID: 019
Date (s): 8/13/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 82 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/13/25 11:00 AM
Static Water Level: 10.32 feet below TOC
Total Depth: 22.34 feet below TOC
Water Column: 12.02 feet

Purging Activities

Purged By: AL Purge Date: 8/13/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 12.02 ft. x 0.022 = 0.26 L x 3 Vol. = 0.78 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:00	0.0	158	purge start time						
11:10	1.6	↓	6.80	636.30	19.39	0.79	-7.80	27.89	
11:13	2.1		6.79	634.60	19.12	0.66	-9.80	20.48	
11:16	2.5		6.79	624.10	19.58	0.64	-10.10	15.44	
11:19	3.0		6.80	615.80	18.84	0.65	-8.80	13.45	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/13/2025 11:19
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.80 pH 615.80 Spec. Cond. 18.84 Temp
Field Filtered: No Filter Type:
Water Level: 15.08 feet below TOC Drawdown: 4.76 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe **Date:** 8/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25080110
Monitoring Point: T-6
Sample ID: 020
Date (s): 8/13/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 82 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/13/25 10:26 AM
Static Water Level: 8.15 feet below TOC
Total Depth: 43.62 feet below TOC
Water Column: 35.47 feet

Purging Activities

Purged By: AL Purge Date: 8/13/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 35.47 ft. x 0.022 = 0.78 L x 3 Vol. = 2.34 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Slightly cloudy Odor: Strong Color: gray

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:26	0.0	375	purge start time						
10:33	2.6	↓	7.17	769.30	20.52	0.44	-147.00	70.17	
10:36	3.8		7.17	758.20	21.22	0.40	-149.20	61.90	
10:39	4.9		7.17	757.90	22.21	0.38	-150.90	50.89	
10:42	6.0		7.16	759.90	22.80	0.37	-152.20	37.05	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/13/2025 10:42
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 7.16 pH 759.90 Spec. Cond. 22.80 Temp
Field Filtered: No Filter Type:
Water Level: 11.61 feet below TOC Drawdown: 3.46 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe **Date:** 8/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25080110
Monitoring Point: AW-1
Sample ID: 021
Date (s): 8/12/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 85 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/12/25 10:46 AM
Static Water Level: 15.01 feet below TOC
Total Depth: 54.81 feet below TOC
Water Column: 39.80 feet

Purging Activities

Purged By: AL Purge Date: 8/12/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 39.8 ft. x 0.022 = 0.88 L x 3 Vol. = 2.64 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.50 L
Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:46	0.0	281	purge start time						
10:53	2.0	↓	6.57	1,602.50	18.89	1.13	-70.70	52.46	
10:56	2.8		6.57	1,598.90	18.79	1.03	-70.90	48.78	
10:59	3.7		6.58	1,600.70	18.80	0.97	-70.90	53.77	
11:02	4.5		6.58	1,599.30	18.97	0.93	-70.90	70.99	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/12/2025 11:02
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.58 pH 1,599.30 Spec. Cond. 18.97 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 17.02 feet below TOC Drawdown: 2.01 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe **Date:** 8/12/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25080110
Monitoring Point: G120
Sample ID: 022
Date (s): 8/12/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 85 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/12/25 11:28 AM
Static Water Level: 18.10 feet below TOC
Total Depth: 50.37 feet below TOC
Water Column: 32.27 feet

Purging Activities

Purged By: AL Purge Date: 8/12/2025
Purge Method: Submersible Pump Well Diameter: 2"
Purge Volume Calculation (L): 32.27 ft. x 0.022 = 0.71 L x 3 Vol. = 2.13 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Slightly cloudy Odor: Slight Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:28	0.0	125	purge start time						
11:43	1.9	↓	6.67	1,995.10	24.23	0.83	-123.60	3.47	
11:46	2.3		6.66	2,010.50	25.64	0.65	-129.30	2.92	
11:49	2.6		6.66	2,014.80	24.46	0.57	-131.50	3.05	
11:52	3.0		6.67	2,003.10	23.53	0.51	-132.40	3.67	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/12/2025 11:52
Sample Method: Low Flow Sample Equipment: Submersible Pump
Sample Parameters: 6.67 pH 2,003.10 Spec. Cond. 23.53 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 18.21 feet below TOC Drawdown: 0.11 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe Date: 8/12/2025

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25080110
Technician(s): DC, JC, BG, AL, JR, PY

Field Calibration Log(s)
CWLP- 3Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 46868 Technician(s): B. Gillihan Date: 8/11/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	8/11/25 10:09
7.0 Buffer	WC240918A	7.00	8/11/25 9:59
10.0 Buffer	WC240625A	10.00	8/11/25 10:15
LCS/CCV (7.0 Buffer)	WC250407A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1411	8/11/25 10:26

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.31	8/11/25 10:28
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	8/11/25 10:28	21.7	7.02	1,414	0.34		
CCV-1-BG	CCV	8/11/25 15:01	23.3	7.02	1,417	0.39		

Comments:

Field Meter ID: Pine 46868 Technician(s): B. Gillihan Date: 8/12/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	
7.0 Buffer	WC240918A	7.00	8/12/25 8:49
10.0 Buffer	WC240625A	10.00	8/12/25 8:55
LCS/CCV (7.0 Buffer)	WC250407A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1415	8/12/25 9:01

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.17	8/12/25 9:06
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	8/12/25 9:08	22.6	7.02	1,418	0.2		
CCV-2-BG	CCV	8/12/25 14:07	24.3	7.03	1,422	0.29		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25080110
Technician(s): DC, JC, BG, AL, JR, PY

Field Calibration Log(s)
CWLP- 3Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 46868 B. Gillihan Date: 8/13/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	8/13/25 9:04
7.0 Buffer	WC240918A	7.00	8/13/25 8:58
10.0 Buffer	WC240625A	10.00	8/13/25 9:13
LCS/CCV (7.0 Buffer)	WC250407A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1415	8/13/25 9:18

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.37	8/13/25 9:19
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. bb
LCS-3-BG	LCS	8/13/25 9:28	23.4	7.01	1,435	0.63		
CCV-3-BG	CCV	8/13/25 12:39	24.7	7.03	1,444	0.55		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25080110
Technician(s): DC, JC, BG, AL, JR, PY

Field Calibration Log(s)
CWLP- 3Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 46864 Technician(s): justin colp Date: 8/12/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc250102a	4.00	8/12/25 9:03
7.0 Buffer	wc250407a	7.00	8/12/25 9:00
10.0 Buffer	wc240625a	10.00	8/12/25 9:06
LCS/CCV (7.0 Buffer)	wc240918a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1412	8/12/25 9:11

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.91	8/12/25 9:12
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	8/12/25 9:12	23.8	7.01	1,397	1.87		
CCV-1-JC	CCV	8/12/25 13:41	26.4	7.04	1,382	2.03		

Comments:

Field Meter ID: Pine 46864 Technician(s): justin colp Date: 8/13/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc250102a	4.00	8/13/25 8:54
7.0 Buffer	wc250407a	7.00	8/13/25 8:49
10.0 Buffer	wc240625a	10.00	8/13/25 8:58
LCS/CCV (7.0 Buffer)	wc240918a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1412	8/13/25 9:04

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.95	8/13/25 9:04
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	8/13/25 9:06	23.6	7.03	1,410	1.92		
CCV-2-JC	CCV	8/13/25 13:00	24.2	6.97	1,388	2.03		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25080110
Technician(s): DC, JC, BG, AL, JR, PY

Field Calibration Log(s)
CWLP- 3Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45612 Technician(s): A.Lampe Date: 8/11/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250429L	4.00	8/11/25 10:09
7.0 Buffer	WC250407A	7.00	8/11/25 10:11
10.0 Buffer	Wc240625A	10.00	8/11/25 10:15
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1412	8/11/25 10:19

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.13	8/11/25 10:19
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-AL	LCS	8/11/25 10:21	21.9	7.07	1,416	0.13		
CCV-1-AL	CCV	8/11/25 14:16	25.7	7.09	1,412	0.23		

Comments:

Field Meter ID: Pine 45612 Technician(s): A.Lampe Date: 8/12/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250429L	4.00	8/12/25 9:11
7.0 Buffer	WC250407A	7.00	8/12/25 9:15
10.0 Buffer	Wc240625A	10.00	8/12/25 9:20
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1412	8/12/25 9:25

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.24	8/12/25 9:25
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-AL	LCS	8/12/25 9:31	25.8	7.09	1,418	0.24		
CCV-2-AL	CCV	8/12/25 14:14	27.5	7.09	1,420	0.21		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 25080110
Technician(s): DC, JC, BG, AL, JR, PY

Field Calibration Log(s)
CWLP- 3Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45612 Technician(s): A.Lampe Date: 8/13/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250429L	4.00	8/13/25 9:06
7.0 Buffer	WC250407A	7.00	8/13/25 9:10
10.0 Buffer	Wc240625A	10.00	8/13/25 9:13
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1412	8/13/25 9:16

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.12	8/13/25 9:17
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-AL	LCS	8/13/25 9:16	25.3	7.09	1,413	0.12		
CCV-3-AL	CCV	8/13/25 12:35	27.6	7.09	1,406	0.14		

Comments:

September 10, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10438
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 25080111

Dear Eric Staley:

TEKLAB, INC received 10 samples on 8/12/2025 3:40:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Work Order: 25080111
Client Project: FGDS Landfill
Report Date: 10-Sep-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	17
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 25080111

Client Project: FGDS Landfill **Report Date:** 10-Sep-25

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 25080111
Client Project: FGDS Landfill
Report Date: 10-Sep-25

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 25080111
Client Project: FGDS Landfill
Report Date: 10-Sep-25

Cooler Receipt Temp: 11.1 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power **Work Order:** 25080111

Client Project: FGDS Landfill **Report Date:** 10-Sep-25

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2026	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2026	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2026	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2025	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 25080111

Client Project: FGDS Landfill **Report Date:** 10-Sep-25

Lab ID: 25080111-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 08/11/2025 12:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	08/11/2025 12:18	R369784
Depth to water	*	-5.00		**4.69**	ft	1	08/11/2025 12:18	R369784
Depth to water from measuring point	*	0		**7.49**	ft	1	08/11/2025 12:18	R369784
Elevation of groundwater surface	*	0		**539.31**	ft	1	08/11/2025 12:18	R369784
Measuring Point Elevation	*	0		**546.80**	ft	1	08/11/2025 12:18	R369784
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	08/11/2025 12:18	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**23**	NTU	1	08/11/2025 12:18	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.0**	°F	1	08/11/2025 12:18	R369784
SW-846 9040B								
pH, Field	*	1.00		**6.69**		1	08/11/2025 12:18	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**834**	µmhos/cm @25C	1	08/11/2025 12:18	R369784
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**866**	mg/L	1	08/12/2025 15:23	R369703
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/12/2025 17:02	R369661
Chloride	NELAP	5.00		**105**	mg/L	10	08/12/2025 17:02	R369661
Sulfate	NELAP	10.0		**264**	mg/L	10	08/12/2025 17:02	R369661
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.0156**	mg/L	1	08/14/2025 17:31	243289
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/13/2025 19:16	243289
Boron	NELAP	0.0200		**0.127**	mg/L	1	08/13/2025 19:16	243289
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/13/2025 19:16	243289
Calcium	NELAP	0.100		**159**	mg/L	1	08/13/2025 19:16	243289
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/13/2025 19:16	243289
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/13/2025 19:16	243289
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/13/2025 19:16	243289
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/13/2025 19:16	243289
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2025 3:08	243289
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	08/19/2025 12:02	243589
Lithium	*	0.0030		**0.0167**	mg/L	5	08/14/2025 3:08	243289
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2025 3:08	243289
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/14/2025 3:08	243289
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/12/2025 16:17	243283
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	08/22/2025 0:00	R371072
Radium-228	*	0		**See Attached**	pci/L	1	08/22/2025 0:00	R371072

Client: City Water, Light & Power **Work Order:** 25080111

Client Project: FGDS Landfill **Report Date:** 10-Sep-25

Lab ID: 25080111-002 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 08/11/2025 11:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	08/11/2025 11:23	R369784
Depth to water	*	-5.00		**26.98**	ft	1	08/11/2025 11:23	R369784
Depth to water from measuring point	*	0		**28.85**	ft	1	08/11/2025 11:23	R369784
Elevation of groundwater surface	*	0		**526.75**	ft	1	08/11/2025 11:23	R369784
Measuring Point Elevation	*	0		**555.60**	ft	1	08/11/2025 11:23	R369784
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	08/11/2025 11:23	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**14**	NTU	1	08/11/2025 11:23	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**69.7**	°F	1	08/11/2025 11:23	R369784
SW-846 9040B								
pH, Field	*	1.00		**6.76**		1	08/11/2025 11:23	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1650**	µmhos/cm @25C	1	08/11/2025 11:23	R369784
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	33		**1250**	mg/L	1.67	08/15/2025 13:31	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/12/2025 17:37	R369661
Chloride	NELAP	5.00		**28.9**	mg/L	10	08/12/2025 17:37	R369661
Sulfate	NELAP	10.0		**344**	mg/L	10	08/12/2025 17:37	R369661
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.354**	mg/L	1	08/13/2025 19:17	243289
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/13/2025 19:17	243289
Boron	NELAP	0.0200		**3.21**	mg/L	1	08/13/2025 19:17	243289
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/13/2025 19:17	243289
Calcium	NELAP	0.100		**194**	mg/L	1	08/13/2025 19:17	243289
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/13/2025 19:17	243289
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/13/2025 19:17	243289
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/13/2025 19:17	243289
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/13/2025 19:17	243289
Sample result for Ba exceeds 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0020**	mg/L	5	08/14/2025 3:14	243289
Arsenic	NELAP	0.0010		**0.0044**	mg/L	5	08/19/2025 12:08	243589
Lithium	*	0.0030		**0.0067**	mg/L	5	08/14/2025 3:14	243289
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2025 3:14	243289
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/14/2025 3:14	243289
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/12/2025 16:20	243283
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	08/25/2025 0:00	R371072
Radium-228	*	0		**See Attached**	pci/L	1	08/25/2025 0:00	R371072

Client: City Water, Light & Power **Work Order:** 25080111

Client Project: FGDS Landfill **Report Date:** 10-Sep-25

Lab ID: 25080111-003 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 08/11/2025 12:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	08/11/2025 12:12	R369784
Depth to water	*	-5.00		**30.38**	ft	1	08/11/2025 12:12	R369784
Depth to water from measuring point	*	0		**32.12**	ft	1	08/11/2025 12:12	R369784
Elevation of groundwater surface	*	0		**522.28**	ft	1	08/11/2025 12:12	R369784
Measuring Point Elevation	*	0		**554.40**	ft	1	08/11/2025 12:12	R369784
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	08/11/2025 12:12	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**18**	NTU	1	08/11/2025 12:12	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.5**	°F	1	08/11/2025 12:12	R369784
SW-846 9040B								
pH, Field	*	1.00		**6.71**		1	08/11/2025 12:12	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1850**	µmhos/cm @25C	1	08/11/2025 12:12	R369784
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1480**	mg/L	1	08/12/2025 15:23	R369703
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/12/2025 17:48	R369661
Chloride	NELAP	5.00		**37.3**	mg/L	10	08/12/2025 17:48	R369661
Sulfate	NELAP	10.0		**552**	mg/L	10	08/12/2025 17:48	R369661
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.466**	mg/L	1	08/14/2025 17:32	243289
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 17:32	243289
Boron	NELAP	0.0200		**12.5**	mg/L	1	08/14/2025 17:32	243289
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 17:32	243289
Calcium	NELAP	0.100		**258**	mg/L	1	08/14/2025 17:32	243289
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:32	243289
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:32	243289
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 17:32	243289
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 17:32	243289
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2025 3:20	243289
Arsenic	NELAP	0.0010		**0.0029**	mg/L	5	08/19/2025 12:15	243589
Lithium	*	0.0030		**0.0062**	mg/L	5	08/14/2025 3:20	243289
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2025 3:20	243289
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/14/2025 3:20	243289
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/12/2025 16:22	243283
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	08/22/2025 0:00	R371072
Radium-228	*	0		**See Attached**	pci/L	1	08/22/2025 0:00	R371072

Client: City Water, Light & Power **Work Order:** 25080111

Client Project: FGDS Landfill **Report Date:** 10-Sep-25

Lab ID: 25080111-004 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 08/11/2025 12:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	08/11/2025 12:56	R369784
Depth to water	*	-5.00		**2.72**	ft	1	08/11/2025 12:56	R369784
Depth to water from measuring point	*	0		**6.02**	ft	1	08/11/2025 12:56	R369784
Elevation of groundwater surface	*	0		**523.96**	ft	1	08/11/2025 12:56	R369784
Measuring Point Elevation	*	0		**529.98**	ft	1	08/11/2025 12:56	R369784
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	08/11/2025 12:56	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.9**	NTU	1	08/11/2025 12:56	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**72.0**	°F	1	08/11/2025 12:56	R369784
SW-846 9040B								
pH, Field	*	1.00		**6.87**		1	08/11/2025 12:56	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1200**	µmhos/cm @25C	1	08/11/2025 12:56	R369784
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**790**	mg/L	1	08/12/2025 15:23	R369703
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/12/2025 18:00	R369661
Chloride	NELAP	5.00		**26.0**	mg/L	10	08/12/2025 18:00	R369661
Sulfate	NELAP	10.0		**131**	mg/L	10	08/12/2025 18:00	R369661
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.604**	mg/L	1	08/14/2025 17:33	243289
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 17:33	243289
Boron	NELAP	0.0200		**3.08**	mg/L	1	08/14/2025 17:33	243289
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 17:33	243289
Calcium	NELAP	0.100		**157**	mg/L	1	08/14/2025 17:33	243289
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:33	243289
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:33	243289
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 17:33	243289
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 17:33	243289
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2025 3:26	243289
Arsenic	NELAP	0.0010		**0.0110**	mg/L	5	08/19/2025 12:21	243589
Lithium	*	0.0030		**0.0053**	mg/L	5	08/14/2025 3:26	243289
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2025 3:26	243289
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/14/2025 3:26	243289
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/12/2025 16:24	243283
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	08/22/2025 0:00	R371072
Radium-228	*	0		**See Attached**	pci/L	1	08/22/2025 0:00	R371072

Client: City Water, Light & Power **Work Order:** 25080111

Client Project: FGDS Landfill **Report Date:** 10-Sep-25

Lab ID: 25080111-005 **Client Sample ID:** P07D

Matrix: GROUNDWATER **Collection Date:** 08/11/2025 11:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.71**	ft	1	08/11/2025 11:23	R369784
Depth to water	*	-5.00		**2.02**	ft	1	08/11/2025 11:23	R369784
Depth to water from measuring point	*	0		**5.02**	ft	1	08/11/2025 11:23	R369784
Elevation of groundwater surface	*	0		**523.23**	ft	1	08/11/2025 11:23	R369784
Measuring Point Elevation	*	0		**528.25**	ft	1	08/11/2025 11:23	R369784
Measuring Point Height Above Land Surface	*	0		**3.00**	ft	1	08/11/2025 11:23	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**35**	NTU	1	08/11/2025 11:23	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.9**	°F	1	08/11/2025 11:23	R369784
SW-846 9040B								
pH, Field	*	1.00		**6.67**		1	08/11/2025 11:23	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**931**	µmhos/cm @25C	1	08/11/2025 11:23	R369784
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	33		**1180**	mg/L	1.67	08/15/2025 13:31	R369952
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/12/2025 18:12	R369661
Chloride	NELAP	5.00		**31.8**	mg/L	10	08/12/2025 18:12	R369661
Sulfate	NELAP	10.0		**324**	mg/L	10	08/12/2025 18:12	R369661
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.789**	mg/L	1	08/14/2025 17:34	243289
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	08/14/2025 17:34	243289
Boron	NELAP	0.0200		**5.54**	mg/L	1	08/14/2025 17:34	243289
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	08/14/2025 17:34	243289
Calcium	NELAP	0.100		**194**	mg/L	1	08/14/2025 17:34	243289
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:34	243289
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	08/14/2025 17:34	243289
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	08/14/2025 17:34	243289
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	08/14/2025 17:34	243289
Sample result(s) for Ca exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2025 4:38	243289
Arsenic	NELAP	0.0010		**0.0255**	mg/L	5	08/19/2025 12:27	243589
Lithium	*	0.0030		**0.0069**	mg/L	5	08/14/2025 4:38	243289
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/14/2025 4:38	243289
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/14/2025 4:38	243289
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	08/12/2025 16:27	243283
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		**See Attached**	pci/L	1	08/22/2025 0:00	R371072
Radium-228	*	0		**See Attached**	pci/L	1	08/22/2025 0:00	R371072

Client: City Water, Light & Power
Work Order: 25080111
Client Project: FGDS Landfill
Report Date: 10-Sep-25
Lab ID: 25080111-006
Client Sample ID: P03D
Matrix: GROUNDWATER
Collection Date: 08/11/2025 14:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**494.95**	ft	1	08/11/2025 14:10	R369784
Depth to water	*	-5.00		**5.46**	ft	1	08/11/2025 14:10	R369784
Depth to water from measuring point	*	0		**8.65**	ft	1	08/11/2025 14:10	R369784
Elevation of groundwater surface	*	0		**524.53**	ft	1	08/11/2025 14:10	R369784
Measuring Point Elevation	*	0		**533.20**	ft	1	08/11/2025 14:10	R369784
Measuring Point Height Above Land Surface	*	0		**3.18**	ft	1	08/11/2025 14:10	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**12**	NTU	1	08/11/2025 14:10	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**68.3**	°F	1	08/11/2025 14:10	R369784
SW-846 9040B								
pH, Field	*	1.00		**6.90**		1	08/11/2025 14:10	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1630**	µmhos/cm @25C	1	08/11/2025 14:10	R369784
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		**0.0017**	mg/L	5	08/19/2025 12:34	243589

Client: City Water, Light & Power **Work Order:** 25080111

Client Project: FGDS Landfill **Report Date:** 10-Sep-25

Lab ID: 25080111-007 **Client Sample ID:** P104

Matrix: GROUNDWATER **Collection Date:** 08/11/2025 13:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**494.07**	ft	1	08/11/2025 13:45	R369784
Depth to water	*	-5.00		**6.90**	ft	1	08/11/2025 13:45	R369784
Depth to water from measuring point	*	0		**9.54**	ft	1	08/11/2025 13:45	R369784
Elevation of groundwater surface	*	0		**522.25**	ft	1	08/11/2025 13:45	R369784
Measuring Point Elevation	*	0		**531.79**	ft	1	08/11/2025 13:45	R369784
Measuring Point Height Above Land Surface	*	0		**2.64**	ft	1	08/11/2025 13:45	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.2**	NTU	1	08/11/2025 13:45	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.2**	°F	1	08/11/2025 13:45	R369784
SW-846 9040B								
pH, Field	*	1.00		**7.30**		1	08/11/2025 13:45	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**495**	µmhos/cm @25C	1	08/11/2025 13:45	R369784
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		**0.0055**	mg/L	5	08/20/2025 14:04	243589

Client: City Water, Light & Power **Work Order:** 25080111

Client Project: FGDS Landfill **Report Date:** 10-Sep-25

Lab ID: 25080111-008 **Client Sample ID:** P103

Matrix: GROUNDWATER **Collection Date:** 08/11/2025 14:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.18**	ft	1	08/11/2025 14:45	R369784
Depth to water	*	-5.00		**8.88**	ft	1	08/11/2025 14:45	R369784
Depth to water from measuring point	*	0		**11.84**	ft	1	08/11/2025 14:45	R369784
Elevation of groundwater surface	*	0		**525.59**	ft	1	08/11/2025 14:45	R369784
Measuring Point Elevation	*	0		**537.43**	ft	1	08/11/2025 14:45	R369784
Measuring Point Height Above Land Surface	*	0		**2.96**	ft	1	08/11/2025 14:45	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**47**	NTU	1	08/11/2025 14:45	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**69.7**	°F	1	08/11/2025 14:45	R369784
SW-846 9040B								
pH, Field	*	1.00		**6.97**		1	08/11/2025 14:45	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**902**	µmhos/cm @25C	1	08/11/2025 14:45	R369784
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		**0.0018**	mg/L	5	08/20/2025 14:10	243589

Client: City Water, Light & Power
Work Order: 25080111
Client Project: FGDS Landfill
Report Date: 10-Sep-25
Lab ID: 25080111-009
Client Sample ID: GP-7
Matrix: GROUNDWATER
Collection Date: 08/12/2025 10:33

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**533.12**	ft	1	08/12/2025 10:33	R369784
Depth to water	*	-5.00		**5.85**	ft	1	08/12/2025 10:33	R369784
Depth to water from measuring point	*	0		**8.89**	ft	1	08/12/2025 10:33	R369784
Elevation of groundwater surface	*	0		**524.23**	ft	1	08/12/2025 10:33	R369784
Measuring Point Elevation	*	0		**533.12**	ft	1	08/12/2025 10:33	R369784
Measuring Point Height Above Land Surface	*	0		**3.04**	ft	1	08/12/2025 10:33	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**140**	NTU	1	08/12/2025 10:33	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.8**	°F	1	08/12/2025 10:33	R369784
SW-846 9040B								
pH, Field	*	1.00		**6.78**		1	08/12/2025 10:33	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**884**	µmhos/cm @25C	1	08/12/2025 10:33	R369784
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		**0.0072**	mg/L	5	08/15/2025 2:29	243361

Client: City Water, Light & Power
Work Order: 25080111
Client Project: FGDS Landfill
Report Date: 10-Sep-25
Lab ID: 25080111-010
Client Sample ID: P04D
Matrix: GROUNDWATER
Collection Date: 08/11/2025 14:11

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.12**	ft	1	08/11/2025 14:11	R369784
Depth to water	*	-5.00		**7.96**	ft	1	08/11/2025 14:11	R369784
Depth to water from measuring point	*	0		**12.99**	ft	1	08/11/2025 14:11	R369784
Elevation of groundwater surface	*	0		**526.68**	ft	1	08/11/2025 14:11	R369784
Measuring Point Elevation	*	0		**539.67**	ft	1	08/11/2025 14:11	R369784
Measuring Point Height Above Land Surface	*	0		**5.03**	ft	1	08/11/2025 14:11	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**68**	NTU	1	08/11/2025 14:11	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**70.4**	°F	1	08/11/2025 14:11	R369784
SW-846 9040B								
pH, Field	*	1.00		**7.01**		1	08/11/2025 14:11	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**881**	µmhos/cm @25C	1	08/11/2025 14:11	R369784
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		**0.0027**	mg/L	5	08/20/2025 14:16	243589

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 25080111
Client Project: FGDS Landfill
Report Date: 10-Sep-25

Carrier: Daniel Crump
Received By: LEH

Completed by: Amber Dilallo
On: 12-Aug-25

Reviewed by: Elizabeth A. Hurley
On: 13-Aug-25

Pages to follow: Chain of custody 2 Extra pages included 18

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	11.1	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Samples were received on 8/11/25 at 1625 on ice [Cooler #2 = 11.1C and Cooler #3 = 16.1C - LTG#3]. Additional Nitric Acid (104844) was needed for R101, G121, G122, AW2 and P07D upon arrival at the laboratory. pH strip #104524. - JD/amberdilallo - 8/12/2025 9:06:13 AM

Samples were received on 8/12/25 at 1540 on ice [Cooler #1 = 5.3C, Cooler #2 = 4.7C, Cooler #3 = 3.7C and Cooler #4 = 4.3C - LTG#5]. pH strip #104524. - amberdilallo - 8/13/2025 8:17:51 AM

rint PD

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 25080111

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 11.1 °C 3
Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY pH DH 8524
LAB NOTES: Added HNO3 (104844) 3/3 liters R101, G121, G122, AW2, P07D

Client Comments: 30 8/12/25
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER: FGDS Landfill
SAMPLE COLLECTOR'S NAME: Bret Gillihan

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity	As (ICPMS)
25080111-001	R101	8-11-25 1218	Groundwater	1	4								✔	✔	✔	✔	✔	✔	
-002	G121	8-11-25 1123	Groundwater	1	4								✔	✔	✔	✔	✔	✔	
-003	G122	8-11-25 1212	Groundwater	1	4								✔	✔	✔	✔	✔	✔	
-004	AW-2	8-11-25 1256	Groundwater	1	4								✔	✔	✔	✔	✔	✔	
-005	P07D	8-11-25 1123	Groundwater	1	4								✔	✔	✔	✔	✔	✔	
-006	P03D	8-11-25 1410	Groundwater	1	1								✔					✔	✔
-007	P104	8-11-25 1345	Groundwater	1	1								✔					✔	✔
-008	P103	8-11-25 1445	Groundwater	1	1								✔					✔	✔
-009	GP-7		Groundwater	1	1								✔					✔	✔
-010	P04D	8-11-25 1411	Groundwater	1	1								✔					✔	✔
			Groundwater																

Relinquished By	Date/Time	Received By	Date/Time
	8-11 / 1625		8/11/25 1625

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Print PD

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 25080111

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005 5.3, 4.7, 3.7

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 4.3 °C 5
Preserved in: ☐ LAB ☒ FIELD FOR LAB USE ONLY
LAB NOTES: 104524 DM 8/13/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Payton Tock

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity	As (ICPMS)
25080111-001	R101		Groundwater	1	4								✔	✔	✔	✔	✔	✔	
-002	G121		Groundwater	1	4								✔	✔	✔	✔	✔	✔	
-003	G122		Groundwater	1	4								✔	✔	✔	✔	✔	✔	
-004	AW-2		Groundwater	1	4								✔	✔	✔	✔	✔	✔	
-005	P07D		Groundwater	1	4								✔	✔	✔	✔	✔	✔	
-006	P03D		Groundwater	1	1								✔					✔	✔
-007	P104		Groundwater	1	1								✔					✔	✔
-008	P103		Groundwater	1	1								✔					✔	✔
-009	GP-7	8/12/25 1033	Groundwater	1	1								✔					✔	✔
-010	P04D		Groundwater	1	1								✔					✔	✔
			Groundwater																

Relinquished By	Date/Time	Received By	Date/Time
	8-12/1540		8/12/25 1540

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	R101
Project Location:	Springfield, IL	**Sample ID:**	001
W.O. Number (s):	25080111	**Date (s):**	8/11/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 84 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/11/25 11:55 AM

Static Water Level: 7.49 feet below TOC

Total Depth: 35.27 feet below TOC

Water Column: 27.78 feet

Purging Activities

Purged By: DC Purge Date: 8/11/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 27.78 ft. x 0.022 = 0.61 L x 3 Vol. = 1.83 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:55	0.0	217	purge start time						
12:06	2.4	↓	6.70	836.50	18.14	1.99	43.90	10.40	
12:09	3.0		6.69	837.60	18.11	1.83	42.40	15.24	
12:12	3.7		6.69	834.50	18.16	1.67	40.70	17.98	
12:15	4.3		6.68	832.20	17.93	1.55	39.10	20.87	
12:18	5.0		6.69	833.60	17.78	1.46	37.60	23.02	

Sampling Activities

Sampled By: BG Sample Date/Time: 8/11/2025 12:18

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.69 pH 833.60 Spec. Cond. 17.78 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 7.51 feet below TOC Drawdown: 0.02 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46868

Form Completed By: Brett Gillihan **Date:** 8/11/2025

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25080111
Monitoring Point: G121
Sample ID: 002
Date (s): 8/11/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 85 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/11/25 10:49 AM
Static Water Level: 28.85 feet below TOC
Total Depth: 58.56 feet below TOC
Water Column: 29.71 feet

Purging Activities

Purged By: AL Purge Date: 8/11/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 29.71 ft. x 0.022 = 0.65 L x 3 Vol. = 1.95 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Slightly cloudy Odor: Slight Color: light brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:49	0.0	88	purge start time						
11:14	2.2	↓	6.77	1,651.80	20.65	4.82	-109.80	14.32	
11:17	2.5		6.76	1,653.50	20.46	4.71	-109.70	13.48	
11:20	2.7		6.76	1,651.10	20.81	4.79	-108.90	14.14	
11:23	3.0		6.76	1,654.40	20.92	4.75	-107.60	13.86	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/11/2025 11:23
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.76 pH 1,654.40 Spec. Cond. 20.92 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 29.00 feet below TOC Drawdown: 0.15 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe **Date:** 8/11/2025

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25080111
Monitoring Point: G122
Sample ID: 003
Date (s): 8/11/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 85 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/11/25 11:51 AM
Static Water Level: 32.12 feet below TOC
Total Depth: 49.29 feet below TOC
Water Column: 17.17 feet

Purging Activities

Purged By: AL Purge Date: 8/11/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 17.17 ft. x 0.022 = 0.38 L x 3 Vol. = 1.14 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: gray

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:51	0.0	286	purge start time						
12:03	3.4	↓	6.72	1,783.30	18.26	0.69	-104.40	31.73	
12:06	4.3		6.71	1,829.60	18.20	0.64	-111.10	22.91	
12:09	5.1		6.71	1,819.90	18.78	0.63	-114.10	21.11	
12:12	6.0		6.71	1,854.80	18.06	0.59	-116.00	17.86	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/11/2025 12:12
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.71 pH 1,854.80 Spec. Cond. 18.06 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 32.31 feet below TOC Drawdown: 0.19 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe **Date:** 8/11/2025

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25080111
Monitoring Point: AW-2
Sample ID: 004
Date (s): 8/11/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 85 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/11/25 12:38 PM
Static Water Level: 6.02 feet below TOC
Total Depth: 32.64 feet below TOC
Water Column: 26.62 feet

Purging Activities

Purged By: AL Purge Date: 8/11/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 26.62 ft. x 0.022 = 0.59 L x 3 Vol. = 1.77 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Slightly cloudy Odor: Slight Color: light brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:38	0.0	222	purge start time						
12:47	2.0	↓	6.88	1,199.00	21.32	1.19	-135.10	2.12	
12:50	2.7		6.88	1,195.90	21.21	1.04	-136.30	2.59	
12:53	3.3		6.87	1,198.20	21.68	0.99	-136.70	3.64	
12:56	4.0		6.87	1,198.00	22.23	0.97	-135.50	4.90	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/11/2025 12:56
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.87 pH 1,198.00 Spec. Cond. 22.23 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 6.33 feet below TOC Drawdown: 0.31 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe **Date:** 8/11/2025

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	P07D
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	25080111	**Date (s):**	8/11/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 83 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/11/25 10:52 AM

Static Water Level: 5.02 feet below TOC

Total Depth: 32.54 feet below TOC

Water Column: 27.52 feet

Purging Activities

Purged By: DC Purge Date: 8/11/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 27.52 ft. x 0.022 = 0.61 L x 3 Vol. = 1.83 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:52	0.0	194	purge start time						
11:11	3.7	↓	6.67	973.80	18.71	1.29	-47.50	43.47	
11:14	4.3		6.67	958.90	18.90	1.25	-50.90	37.46	
11:17	4.8		6.67	947.80	19.27	1.23	-53.80	37.54	
11:20	5.4		6.67	948.30	19.81	1.24	-56.30	32.14	
11:23	6.0		6.67	931.20	19.37	1.23	-58.80	34.99	

Sampling Activities

Sampled By: BG Sample Date/Time: 8/11/2025 11:23

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

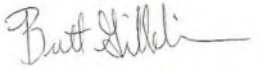
Sample Parameters: 6.67 pH 931.20 Spec. Cond. 19.37 Temp

Field Filtered: No Filter Type:

Water Level: 5.21 feet below TOC Drawdown: 0.19 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46868

Form Completed By:  **Date:** 8/11/2025

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25080111
Monitoring Point: P03D
Sample ID: 006
Date (s): 8/11/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 85 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/11/25 1:53 PM
Static Water Level: 8.65 feet below TOC
Total Depth: 38.25 feet below TOC
Water Column: 29.60 feet

Purging Activities

Purged By: AL Purge Date: 8/11/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 29.6 ft. x 0.022 = 0.65 L x 3 Vol. = 1.95 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:53	0.0	235	purge start time						
14:01	1.9	↓	6.90	1,632.10	20.00	1.13	-11.70	8.38	
14:04	2.6		6.90	1,615.30	20.04	1.04	-11.10	8.89	
14:07	3.3		6.90	1,630.80	20.52	1.07	-11.60	10.72	
14:10	4.0		6.90	1,628.40	20.15	0.98	-13.20	11.67	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/11/2025 14:10
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.90 pH 1,628.40 Spec. Cond. 20.15 Temp
Field Filtered: No Filter Type:
Water Level: 8.85 feet below TOC Drawdown: 0.20 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe **Date:** 8/11/2025

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25080111
Monitoring Point: P104
Sample ID: 007
Date (s): 8/11/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 85 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Damaged
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/11/25 1:25 PM
Static Water Level: 9.54 feet below TOC
Total Depth: 37.72 feet below TOC
Water Column: 28.18 feet

Purging Activities

Purged By: AL Purge Date: 8/11/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 28.18 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Clear Odor: Slight Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:25	0.0	200	purge start time						
13:36	2.2	↓	7.29	494.10	19.02	1.24	-120.70	5.62	
13:39	2.8		7.30	493.20	19.20	1.17	-126.70	6.82	
13:42	3.4		7.30	494.70	19.15	1.11	-129.20	5.23	
13:45	4.0		7.30	495.40	19.02	1.05	-130.80	5.16	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/11/2025 13:45
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 7.30 pH 495.40 Spec. Cond. 19.02 Temp
Field Filtered: No Filter Type:
Water Level: 12.02 feet below TOC Drawdown: 2.48 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612
- Rusted casing

Form Completed By: Allison Lampe **Date:** 8/11/2025

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	P103
Project Location:	Springfield, IL	**Sample ID:**	008
W.O. Number (s):	25080111	**Date (s):**	8/11/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 88 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/11/25 2:25 PM

Static Water Level: 11.84 feet below TOC

Total Depth: 35.25 feet below TOC

Water Column: 23.41 feet

Purging Activities

Purged By: DC Purge Date: 8/11/2025

Purge Method: Peristaltic Pump Well Diameter: 3"

Purge Volume Calculation (L): 23.41 ft. x 0.022 = 0.52 L x 3 Vol. = 1.56 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
14:25	0.0	250	purge start time						
14:33	2.0	↓	6.99	890.00	21.44	1.68	90.20	77.54	
14:36	2.8		6.98	894.00	21.38	1.55	87.90	81.66	
14:39	3.5		6.98	895.10	21.22	1.47	86.00	78.69	
14:42	4.3		6.97	897.70	21.04	1.39	84.40	65.46	
14:45	5.0		6.97	901.70	20.95	1.34	83.00	47.18	

Sampling Activities

Sampled By: DC Sample Date/Time: 8/11/2025 14:45

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.97 pH 901.70 Spec. Cond. 20.95 Temp

Field Filtered: No Filter Type:

Water Level: 11.91 feet below TOC Drawdown: 0.07 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46868

Form Completed By: Brett Gillihan **Date:** 8/11/2025

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25080111
Monitoring Point: GP-7
Sample ID: 009
Date (s): 8/12/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 84 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/12/25 10:14 AM
Static Water Level: 8.89 feet below TOC
Total Depth: 40.52 feet below TOC
Water Column: 31.63 feet

Purging Activities

Purged By: AL Purge Date: 8/12/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 31.63 ft. x 0.022 = 0.7 L x 3 Vol. = 2.1 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:14	0.0	158	purge start time						
10:24	1.6	↓	6.86	790.50	18.48	1.41	-64.50	44.92	
10:27	2.1		6.87	793.20	18.35	1.21	-73.40	60.69	
10:30	2.5		6.85	829.00	18.23	1.06	-83.20	90.05	
10:33	3.0		6.78	884.20	18.22	0.94	-98.90	136.81	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/12/2025 10:33
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.78 pH 884.20 Spec. Cond. 18.22 Temp
Field Filtered: No Filter Type:
Water Level: 9.35 feet below TOC Drawdown: 0.46 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe **Date:** 8/12/2025

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	P04D
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	25080111	**Date (s):**	8/11/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 87 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 8/11/25 1:47 PM

Static Water Level: 12.99 feet below TOC

Total Depth: 42.55 feet below TOC

Water Column: 29.56 feet

Purging Activities

Purged By: DC Purge Date: 8/11/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 29.56 ft. x 0.022 = 0.65 L x 3 Vol. = 1.95 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:47	0.0	208	purge start time						
13:59	2.5	↓	7.16	683.80	21.23	3.43	62.90	48.65	
14:02	3.1		7.13	688.10	21.22	3.37	64.40	46.37	
14:05	3.8		7.07	712.70	21.29	3.21	68.20	42.87	
14:08	4.4		7.01	743.80	21.30	2.97	73.60	38.34	
14:11	5.0		6.93	803.30	21.28	2.65	80.40	36.19	
14:14	5.6		7.41	22.00	21.81	8.43	81.00	4.41	
14:17	6.2		7.80	20.00	23.08	8.93	74.40	4.54	
14:20	6.9		7.93	25.80	25.27	8.89	69.90	4.53	
14:23	7.5		8.05	22.20	26.65	8.70	65.70	4.60	
14:26	8.1		7.43	965.50	21.44	5.71	89.10	70.66	
14:29	8.8		7.07	853.50	20.43	2.14	92.80	73.21	
14:32	9.4		7.01	881.10	21.36	1.79	91.20	68.13	

Sampling Activities

Sampled By: BG Sample Date/Time: 8/11/2025 14:11

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 7.01 pH 881.10 Spec. Cond. 21.36 Temp

Field Filtered: No Filter Type:

Water Level: 13.05 feet below TOC Drawdown: 0.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46868

Form Completed By: Brett Gillihan **Date:** 8/11/2025

Site Samping Event: FGDS Landfill
LIMS Workorder: 25080111
Technician(s): DC, JC, BG, AL, JR, PY

Field Calibration Log(s)
CWLP- 3Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 46868 Technician(s): B. Gillihan Date: 8/11/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	8/11/25 10:09
7.0 Buffer	WC240918A	7.00	8/11/25 9:59
10.0 Buffer	WC240625A	10.00	8/11/25 10:15
LCS/CCV (7.0 Buffer)	WC250407A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1411	8/11/25 10:26

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.31	8/11/25 10:28
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	8/11/25 10:28	21.7	7.02	1,414	0.34		
CCV-1-BG	CCV	8/11/25 15:01	23.3	7.02	1,417	0.39		

Comments:

Field Meter ID: Pine 46868 Technician(s): B. Gillihan Date: 8/12/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	
7.0 Buffer	WC240918A	7.00	8/12/25 8:49
10.0 Buffer	WC240625A	10.00	8/12/25 8:55
LCS/CCV (7.0 Buffer)	WC250407A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1415	8/12/25 9:01

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.17	8/12/25 9:06
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	8/12/25 9:08	22.6	7.02	1,418	0.2		
CCV-2-BG	CCV	8/12/25 14:07	24.3	7.03	1,422	0.29		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 25080111
Technician(s): DC, JC, BG, AL, JR, PY

Field Calibration Log(s)
CWLP- 3Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 46868 B. Gillihan Date: 8/13/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250102A	4.00	8/13/25 9:04
7.0 Buffer	WC240918A	7.00	8/13/25 8:58
10.0 Buffer	WC240625A	10.00	8/13/25 9:13
LCS/CCV (7.0 Buffer)	WC250407A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1415	8/13/25 9:18

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.37	8/13/25 9:19
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. bb
LCS-3-BG	LCS	8/13/25 9:28	23.4	7.01	1,435	0.63		
CCV-3-BG	CCV	8/13/25 12:39	24.7	7.03	1,444	0.55		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 25080111
Technician(s): DC, JC, BG, AL, JR, PY

Field Calibration Log(s)
CWLP- 3Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 46864 Technician(s): justin colp Date: 8/12/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc250102a	4.00	8/12/25 9:03
7.0 Buffer	wc250407a	7.00	8/12/25 9:00
10.0 Buffer	wc240625a	10.00	8/12/25 9:06
LCS/CCV (7.0 Buffer)	wc240918a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1412	8/12/25 9:11

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.91	8/12/25 9:12
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	8/12/25 9:12	23.8	7.01	1,397	1.87		
CCV-1-JC	CCV	8/12/25 13:41	26.4	7.04	1,382	2.03		

Comments:

Field Meter ID: Pine 46864 Technician(s): justin colp Date: 8/13/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	wc250102a	4.00	8/13/25 8:54
7.0 Buffer	wc250407a	7.00	8/13/25 8:49
10.0 Buffer	wc240625a	10.00	8/13/25 8:58
LCS/CCV (7.0 Buffer)	wc240918a		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1412	8/13/25 9:04

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.95	8/13/25 9:04
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	8/13/25 9:06	23.6	7.03	1,410	1.92		
CCV-2-JC	CCV	8/13/25 13:00	24.2	6.97	1,388	2.03		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 25080111
Technician(s): DC, JC, BG, AL, JR, PY

Field Calibration Log(s)
CWLP- 3Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45612 Technician(s): A.Lampe Date: 8/11/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250429L	4.00	8/11/25 10:09
7.0 Buffer	WC250407A	7.00	8/11/25 10:11
10.0 Buffer	Wc240625A	10.00	8/11/25 10:15
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1412	8/11/25 10:19

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.13	8/11/25 10:19
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-AL	LCS	8/11/25 10:21	21.9	7.07	1,416	0.13		
CCV-1-AL	CCV	8/11/25 14:16	25.7	7.09	1,412	0.23		

Comments:

Field Meter ID: Pine 45612 Technician(s): A.Lampe Date: 8/12/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250429L	4.00	8/12/25 9:11
7.0 Buffer	WC250407A	7.00	8/12/25 9:15
10.0 Buffer	Wc240625A	10.00	8/12/25 9:20
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1412	8/12/25 9:25

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.24	8/12/25 9:25
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-AL	LCS	8/12/25 9:31	25.8	7.09	1,418	0.24		
CCV-2-AL	CCV	8/12/25 14:14	27.5	7.09	1,420	0.21		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 25080111
Technician(s): DC, JC, BG, AL, JR, PY

Field Calibration Log(s)
CWLP- 3Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45612 Technician(s): A.Lampe Date: 8/13/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC250429L	4.00	8/13/25 9:06
7.0 Buffer	WC250407A	7.00	8/13/25 9:10
10.0 Buffer	Wc240625A	10.00	8/13/25 9:13
LCS/CCV (7.0 Buffer)	WC240918A		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	105373	1412	8/13/25 9:16

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.12	8/13/25 9:17
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-AL	LCS	8/13/25 9:16	25.3	7.09	1,413	0.12		
CCV-3-AL	CCV	8/13/25 12:35	27.6	7.09	1,406	0.14		

Comments:

APPENDIX H:

Boring Log/Well Completion Report and Laboratory Report for P06D

PATRICK ENGINEERING INC.

BORING NUMBER **P-6D** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,717.0 E 2,186.8**

LOGGED BY **KRR**
GROUND ELEVATION **524.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
524.8	0.0		Brown silty clay, trace to little fine sand, soft, medium plasticity, wet CL	AU-1 0.0-2.0		22.2	
			Mottled at 2.0'	SS-2 2.0-4.0 18"R	2 1 2 3	✳ 21.2	
				SS-3 4.0-6.0 20"R	1 1 2 2	✳ 21.7	
518.3	6.5			SS-4AB 6.0-8.0 18"R	1 2 2 2	✳ 22.0	
517.3	7.5		Brown, clayey, fine sand, little to some silt, loose, poorly graded, saturated SC			✳ 25.4	Water level at 6.0' during drilling.
			Brown mottled silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-5 8.0-10.0 10"R	1 1 2 2	✳ 21.7	Wood fragments in SS-5.
514.8	10.0		Gray silty clay, trace fine sand, soft to medium stiff, medium plasticity, wet CL	SS-6 10.0-12.0 20"R	3 1 1 1	✳ 29.8	
				SS-7 12.0-14.0 20"R	2 2 2 2	✳ 28.3	
				SS-8 14.0-16.0 22"R	1 2 4 3	✳ 24.1	
				SS-9 16.0-18.0 24"R	2 2 2 2	✳ 24.7	
				3T-10 18.0-20.0 24"R		✳	
504.8	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/12/92** ENDED **8/12/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **6.0'** during drilling
▽ **1.0'** after drilling
▽

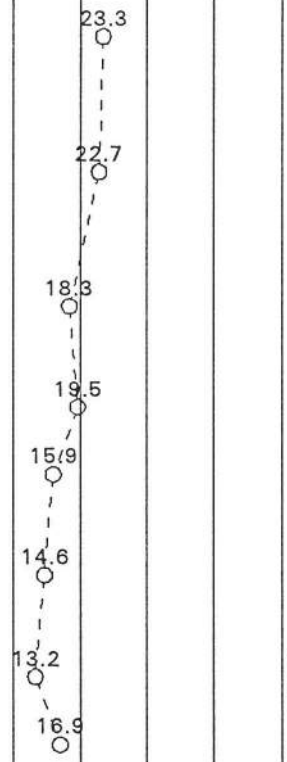
PATRICK ENGINEERING INC.

BORING NUMBER P-6D SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,717.0 E 2,186.8

LOGGED BY KRR
GROUND ELEVATION 524.8

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
504.8	20.0		Gray silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-11 20.0-22.0 24"R	1 2 2 1
				SS-12 22.0-24.0 24"R	WOH 1 2 1
501.8	23.0		Little fine sand in SS-12		
			Gray clayey silt, trace fine sand, loose, wet to saturated CL-ML/ML	SS-13 24.0-26.0 24"R	2 3 4 4
				SS-14AB 26.0-28.0 24"R	4 4 7 10
497.3	27.5				
496.8	28.0		Gray fine sand, trace coarse to medium sand, some silt, medium dense, poorly graded, saturated SM	SS-15 28.0-30.0 24"R	7 7 18 9
			Gray coarse to fine sand, trace coarse to fine gravel, some silt, medium dense, well graded, saturated SM	SS-16AB 30.0-32.0 22"R	13 16 17 100 +
493.3	31.5				
492.8	32.0		Gray shale		
			End of Boring at 32.0'		

Water Content: PL □ - - - ○ - - - △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)



NOTES & TEST RESULTS

Water level at 1.0' immediately after drilling.
Piezometer was installed immediatley after completion of drilling.
Refer to As-Built Diagram P-6D for more information.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/12/92** ENDED **8/12/92**

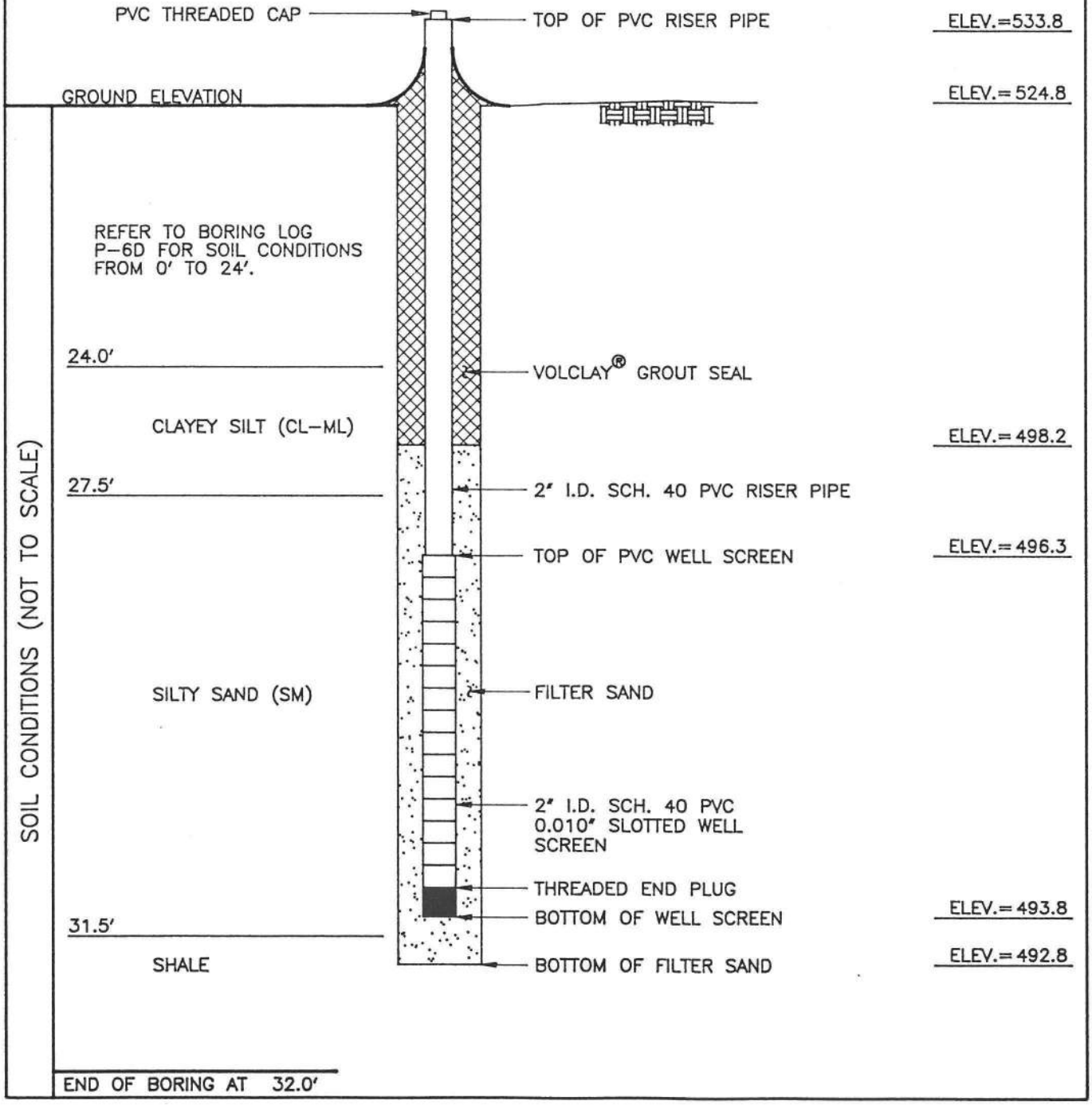
REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ **6.0'** during drilling.
▼ **1.0'** after drilling.

PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-6D PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER KRISHNA REDDY
DRILLER KEVIN SHAMWAY

BORING NO. P-6D
LOCATION N 4717.0
E 2186.8
INSTALLATION DATE 8/12/92
WEATHER SUNNY, 70'S



April 22, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 25030753

Dear Eric Staley:

TEKLAB, INC received 9 samples on 3/18/2025 3:05:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Work Order: 25030753
Client Project: FGDS Landfill
Report Date: 22-Apr-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	16
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 25030753

Client Project: FGDS Landfill **Report Date:** 22-Apr-25

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 25030753
Client Project: FGDS Landfill
Report Date: 22-Apr-25

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 25030753
Client Project: FGDS Landfill
Report Date: 22-Apr-25

Cooler Receipt Temp: 13.7 °C

An employee of Teklab, Inc. collected the sample(s).

Radium 226/228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 25030753

Client Project: FGDS Landfill

Report Date: 22-Apr-25

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2026	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2025	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 25030753
Client Project: FGDS Landfill
Report Date: 22-Apr-25
Lab ID: 25030753-004
Client Sample ID: P06D
Matrix: GROUNDWATER
Collection Date: 03/18/2025 11:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	1.0		**15.3**	µg/L	5	03/24/2025 11:59	236195

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	P06D
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	25030753	**Date (s):**	3/18/2025

Field Team Members

Name: Tracy Carroll Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 58 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 3/18/2025 11:22

Static Water Level: 2.64 feet below TOC

Total Depth: 37.42 feet below TOC

Water Column: 34.78 feet

Purging Activities

Purged By: TC Purge Date: 3/18/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.78 ft. x 0.022 = 0.77 L x 3 Vol. = 2.31 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:24	0.0	333	purge start time						
11:33	3.0	↓	6.82	998.90	13.67	1.30	-87.00	4.78	
11:36	4.0		6.80	999.80	13.73	1.12	-97.80	4.28	
11:39	5.0		6.79	1,000.80	14.15	1.00	-104.70	4.28	
11:42	6.0		6.79	1,001.90	14.07	0.91	-109.30	4.81	
11:45	7.0		6.79	1,002.70	14.44	0.83	-113.00	6.76	

Sampling Activities

Sampled By: TC Sample Date/Time: 3/18/2025 11:45

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.79 pH 1,002.70 Spec. Cond. 14.44 Temp

Field Filtered: No Filter Type:

Water Level: 2.87 feet below TOC Drawdown: 0.23 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 210756

Form Completed By: Tracy Carroll **Date:** 3/18/2025

APPENDIX I:

Boring Log/Well Completion Report and Laboratory Report for GP-7

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water Light and Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEI No.: 180247

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: 80's F, Sunny

Boring Information:
Boring No: GP7
Well No: GP7
Surf Elev.: 0

Depth Information:
Total: 36.5
Auger: 36.5
Core: N/A

Drilling Contractor:
Contractor Name: Bulldog Drilling, Inc.
City: Dupo, IL
Equipment: AMS PowerProbe 9500 w/ 5' MC

Personnel:
Geologist: C. Myrvold
Driller: J. Edwards
Helper(s): S. Guy

Dates:
Start: 5/16/19
Finish: 5/16/19

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0							Dark brown clayey silt TOPSOIL, moist, moderately loose.	
							Brown/gray silty CLAY to clayey SILT, moist, stiff, trace sand.	
	1		4.1/5					
5								-5.0
	2		4.0/4					
10								-10.0
	3		4.0/4					
							Gray silty CLAY, moist, stiff.	
15	4		2.7/4					-15.0
							17.0 - 18.0: Soft, saturated.	
							18.0 - 25.0: moderately loose to moderately stiff.	
	5		4.0/4					
20								-20.0

Notes: Refusal at 36.50'

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: GP7 Boring No: GP7 Well No: GP7

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							(cont.) Gray silty CLAY, moist, stiff.	
	6		4.0/4				23.0 - 25.0: gray to brown/gray.	
25							Dark gray silty CLAY, moist, moderately stiff; some sand.	-25.0
	7		3.1/4					
							Dark gray silty SAND, fine-grained, wet, loose, some clay.	
30	8		3.7/4					-30.0
	9		3.5/ 3.5					
35								-35.0
							Gray to dark gray SHALE, weathered, soft, dry.	
							End of Boring = 36.5 Feet	
40								-40.0

Notes: Refusal at 36.50'

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: T4S

Site Name: FGDS Development Borehole #: T4S

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 13 " Longitude: -89 ° 36 ' 3 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB, 2 ' split spoon Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/20/2025 Date Well Finished: 5/20/2025 Date Form Completed: 6/3/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: n/a

Installation method: _____

Setting time: _____

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 24+ hours

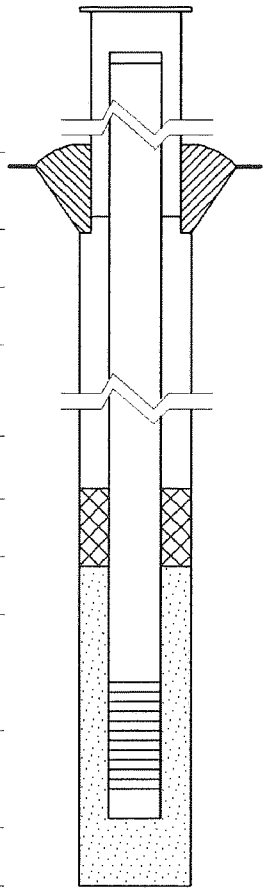
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
549.25	-2.5	Top of Protective Casing
549.04	-2.29	Top of Riser Pipe
546.75	0.0	Ground Surface
_____	_____	Top of Annular Sealant
_____	_____	Static Water Level Measured on (after completion)
544.75	2.0	Top of Seal
538.85	7.9	Top of Sandpack
536.83	9.93	Top of Screen
532.15	14.6	Bottom of Screen
531.75	15.0	Bottom of Well
531.75	15.0	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	12.21
Bottom of Screen to End Cap (ft)	0.4
Screen Length (1st slot to last slot) (ft)	4.68
Total Length of Casing (ft)	17.29
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

August 21, 2025

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10438
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 25080111

Dear Eric Staley:

TEKLAB, INC received 10 samples on 8/12/2025 3:40:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

PRELIMINARY REPORT

A preliminary report contains data that is incomplete or data that has not been fully validated. Caution should be exercised in the use of any data presented, as final reported results may not reflect the values presented.

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 25080111
Report Date: 21-Aug-25

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	17
Chain of Custody	Appended

PRELIMINARY REPORT

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Client: City Water, Light & Power

Work Order: 25080111

Client Project: FGDS Landfill

Report Date: 21-Aug-25

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

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Client: City Water, Light & Power

Work Order: 25080111

Client Project: FGDS Landfill

Report Date: 21-Aug-25

Qualifiers

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- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
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- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

PRELIMINARY REPORT

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Client: City Water, Light & Power

Client Project: FGDS Landfill

Work Order: 25080111

Report Date: 21-Aug-25

Cooler Receipt Temp: 11.1 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

PRELIMINARY REPORT

A preliminary report contains data that is incomplete or data that has not been fully validated. Caution should be exercised in the use of any data presented, as final reported results may not reflect the values presented.

Client: City Water, Light & Power

Work Order: 25080111

Client Project: FGDS Landfill

Report Date: 21-Aug-25

State	Dept	Cert #	NELAP	Exp Date	Lab
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Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2025	Collinsville
Kentucky	KWLCP	KY98006		12/31/2025	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

PRELIMINARY REPORT

A preliminary report contains data that is incomplete or data that has not been fully validated. Caution should be exercised in the use of any data presented, as final reported results may not reflect the values presented.

Client: City Water, Light & Power
Work Order: 25080111
Client Project: FGDS Landfill
Report Date: 21-Aug-25
Lab ID: 25080111-009
Client Sample ID: GP-7
Matrix: GROUNDWATER
Collection Date: 08/12/2025 10:33

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**533.12**	ft	1	08/12/2025 10:33	R369784
Depth to water	*	-5.00		**5.85**	ft	1	08/12/2025 10:33	R369784
Depth to water from measuring point	*	0		**8.89**	ft	1	08/12/2025 10:33	R369784
Elevation of groundwater surface	*	0		**524.23**	ft	1	08/12/2025 10:33	R369784
Measuring Point Elevation	*	0		**533.12**	ft	1	08/12/2025 10:33	R369784
Measuring Point Height Above Land Surface	*	0		**3.04**	ft	1	08/12/2025 10:33	R369784
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**140**	NTU	1	08/12/2025 10:33	R369784
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.8**	°F	1	08/12/2025 10:33	R369784
SW-846 9040B								
pH, Field	*	1.00		**6.78**		1	08/12/2025 10:33	R369784
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**884**	µmhos/cm @25C	1	08/12/2025 10:33	R369784
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		**0.0072**	mg/L	5	08/15/2025 2:29	243361

PRELIMINARY REPORT

A preliminary report contains data that is incomplete or data that has not been fully validated. Caution should be exercised in the use of any data presented, as final reported results may not reflect the values presented.

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 25080111
Monitoring Point: GP-7
Sample ID: 009
Date (s): 8/12/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 84 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 8/12/25 10:14 AM
Static Water Level: 8.89 feet below TOC
Total Depth: 40.52 feet below TOC
Water Column: 31.63 feet

Purging Activities

Purged By: AL Purge Date: 8/12/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 31.63 ft. x 0.022 = 0.7 L x 3 Vol. = 2.1 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:14	0.0	158	purge start time						
10:24	1.6	↓	6.86	790.50	18.48	1.41	-64.50	44.92	
10:27	2.1		6.87	793.20	18.35	1.21	-73.40	60.69	
10:30	2.5		6.85	829.00	18.23	1.06	-83.20	90.05	
10:33	3.0		6.78	884.20	18.22	0.94	-98.90	136.81	

Sampling Activities

Sampled By: PY Sample Date/Time: 8/12/2025 10:33
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.78 pH 884.20 Spec. Cond. 18.22 Temp
Field Filtered: No Filter Type:
Water Level: 9.35 feet below TOC Drawdown: 0.46 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45612

Form Completed By: Allison Lampe **Date:** 8/12/2025

Appendix J:
Flow Path Report

City Water, Light & Power
Springfield, Illinois

CCR Surface Impoundments and
FGDS Unit 2 Landfill

Flow Path Report

September 2025

Prepared for:
City Water, Light & Power
3100 Stevenson Drive
Springfield, Illinois

ANDREWS ENGINEERING

3300 Ginger Creek Drive, Springfield, IL 62711 | 217.787.2334

ILLINOIS | MISSOURI | INDIANA

EXECUTIVE SUMMARY

This Flow Path Report is prepared in accordance with paragraphs 263 and 280 of the January 14, 2025 Consent Agreement and Final Order (CAFO). The purpose of this report is to fully characterize groundwater flow paths from the CCR surface impoundments and the FGDS Disposal Facility, evaluate potential preferential pathways including the abandoned creek beneath the Dallman Ash Pond and discontinuous shallow sand, assess the potential for contact between coal combustion residuals (CCR) and groundwater after closure, and demonstrate the absence of hydraulic communication between geologic units that could facilitate contaminant transport. This report integrates site-specific geologic, hydrogeologic, and construction data, including boring logs, well installation records, groundwater monitoring results, transducer data, hydrogeologic cross-sections, static groundwater elevations, pool elevations for Lake Springfield, the clarification pond, and Sugar Creek, and potentiometric surface maps and slug testing results for hydraulic conductivity.

Key findings include:

- The abandoned creek bed beneath the Dallman Ash Pond perimeter berms and the Unit 2 Landfill has been filled and compacted during construction, precluding it from acting as a preferential pathway. Historical aerial photographs and topographic maps (United Stated Geological Survey) do not show Sugar Creek being recently present beneath the Lakeside Ash Pond.
- Current groundwater movement is generally radial from the impoundments toward Sugar Creek, with an eastward component along the eastern portion of the site toward the FGDS Landfill, then northward toward Sugar Creek.
- The shallow sand unit, which is discontinuous, was largely removed during Dallman Ash Pond construction and Sugar Creek relocation and does not serve as a primary contaminant pathway.
- The potentiometric surfaces in the shallow sand piezometers do not reflect direct connection to the impoundments, indicating hydraulic separation, particularly along the northern periphery of the Dallman Ash Pond.
- Post-closure, CCR is not anticipated to be in contact with groundwater due to the confining properties of the lower cohesive unit.
- Construction of the impoundments did not occur below the potentiometric surfaces due to hydrogeologic properties of the sediments and complexities of building structures in wet or saturated conditions.
- Nested well group AP-15S/AP-15D is proposed to be added to the monitor well system; the Groundwater Monitoring Program will be updated accordingly.

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1. INTRODUCTION

1.1 Purpose and Scope

Pursuant to Paragraphs 263 and 280 of the CAFO, City Water, Light and Power (CWLP) agreed to prepare a Flow Path Report that includes all applicable data used to determine the groundwater flow paths for the CCR Surface Impoundments and Flue Gas Desulfurization System (FGDS) Unit 2 Landfill.

This Flow Path Report focuses on groundwater flow dynamics, geologic barriers, and potential pathways to address these items. It integrates data from historical site investigations, construction records, groundwater monitoring and recent assessments. Data collection includes semiannual monitoring and transducer deployments for groundwater level monitoring events.

1.2 Site Background

CWLP owns two existing CCR surface impoundments and a CCR landfill subject to the U.S. EPA Standards for the Disposal of Coal Combustion Residuals (40 CFR 257). The CWLP CCR surface impoundments and FGDS Unit 2 Landfill are located north and east of the former Lakeside Power Generating Station and Dallman Power Generating Station in the Eastern ½ of Section 12, Township 15 North, Range 5 West, in Springfield, Illinois (see Figure 1). The CCR surface impoundments are identified as the Lakeside Ash Pond and the Dallman Ash Pond and the CCR landfill is identified as Unit 2 of the Flue Gas Desulfurization Sludge (FGDS) Landfill (see Figure 2). Depicted in Figure 3 is the 1936 pre-CCR impoundment conditions of the CWLP facility looking to the north-northeast.

The Lakeside Ash Pond was placed into service prior to 1958 and ceased receiving ash in 2009. It has been divided into four separate ponds, three lime sludge ponds (out of service since October 13, 2023) and the settling pond consisting of approximately 35.0 acres. The Lakeside Ash Pond formerly received lime sludge from the CWLP Drinking Water Purification Plant, scrubber wastewater treatment plant clarifier blowdown and water from miscellaneous floor drains. Construction of new concrete-lined lime sludge ponds were completed and began operation simultaneously with the cessation of the use of Lakeside Ash Pond.

The Dallman Ash Pond was placed into service in 1976 and is approximately 34.5 acres. The Dallman Ash Pond formerly received fly ash and bottom ash, which were sluiced with raw lake water, industrial wastewater treatment plant clarifier blowdown and landfill leachate. CWLP ceased operating Dallman Units 31 & 32 and ceased operating Dallman Unit 33 by September 15, 2023 with all CCR/non-CCR waste streams ceased by October 13, 2023.

The FGDS Unit 2 Landfill, is an existing non-hazardous special waste landfill. Located immediately east of the Dallman Ash Pond, this is a permitted non-hazardous special waste landfill (Illinois EPA Permit No. 1995-243-LFM) for flue gas desulfurization sludge, bottom ash, fly ash, and lime sludge. The FGDS Disposal Facility consists of 40 acres with 22.3 acres of disposal area divided into two units. The south unit is identified as Unit 1 and the north unit is identified as Unit 2.

2. SURFACE IMPOUNDMENT/LANDFILL CONSTRUCTION

Prior to the area development the property on which the CCR surface impoundments and CCR landfill have been constructed was originally for agricultural/pasture purposes as well as woodlands where the Dallman Ash Pond is located. Sugar Creek historically meandered across the site, generally from the west to east with an overall flow direction to the north. Prior to the creek relocation, the creek bed was largely restricted to the northern half of the facility where the Dallman Ash Pond and Unit 2 Landfill are located. Figure 4 shows the subject area prior to development of the ponds or landfill. The upper layer of soil at the site consisted of eolian soils (loess) deposited near the surface, isolated pockets and lenses of fine-grained silty to clayey sand at some locations and alluvial silts and silty clays. Much of the shallow soils were displaced during area development.

During the construction of the Dallman Ash Pond, the creek was abandoned and relocated west and north of the site. The Grading Plan drawing by Burns & McDonnell (Drawing No. Y29, Rev. 4, dated August 13, 1976) (Figure 5) depicts the creek realignment. Abandonment of the creek channel included the placement of different soil types, ranging from cohesive soils characterized as silty clays, to granular fill characterized as poorly graded silty to clayey sands. While the vertical hydraulic conductivity of the material that forms the bottom of the surface impoundments is generally low, soils were not compacted beneath the impoundments except for sections where the dikes of the Dallman Ash Pond were built atop the existing creek bed. No composite liner or alternative composite liner as specified in 40 CFR Part 257.70 (b) or 40 CFR Part 257.70 9 (c)(1), was used to line the bottom of either ash pond.

The Lakeside Ash Pond contains approximately 1,565,000 cubic yards (cu. yds.) of CCR including water treatment plant sludge. The Lakeside Ash Pond is primarily a diked embankment with some incising along the east perimeter. The ash pond abuts the Lake Springfield Spaulding Dam to the south and the original portion of the ash pond abuts the Unit 1 landfill and the clarification pond to the north. Open downstream slopes are present along the west dike of the original ash pond, and the vertical expansion berms, which were constructed on the east, west and north boundaries of the ash pond. The original Lakeside Ash Pond has been divided into four separate ponds since it was expanded vertically in 1988; three lime ponds and the settling pond. The vertical expansion consists of berms built on top and inside of the existing embankments. The floor of the Lakeside

Ash Pond is approximately elevation 530 feet and slopes upward in the eastern portion following the natural topography.

The Dallman Ash Pond contains approximately 1,217,000 cu. yds. of CCR. The Dallman Ash Pond is a diked embankment surface impoundment. The entire Dallman Ash Pond is partially incised. The berms for the Dallman Ash Pond were built to a height of approximately 27 feet (554 feet MSL), using slopes of 2.5H:1V for both the inner and outer slopes. The elevation of the base of the surface impoundments is approximately 525 feet MSL based on aforementioned drawing Figure 5 and borings advanced to the floor of Dallman Ash Pond. Material from the center of the ash pond was excavated and utilized in the construction of the dikes. As depicted on the Grading Plan drawing by Burns & McDonnell (Figure 5), the Dallman Ash Pond dikes were constructed on areas of the old creek bed. According to Note 4 on this drawing, the creek bed in these areas was over-excavated by at least 4 feet below the existing channel banks and bottom. These excavations were then filled in with cohesive material and compacted to at least 90 percent of maximum dry density. The Dallman Ash Pond abuts the FGDS landfills to the east and the clarification pond to the south. The only open downstream slopes are on the west and north dikes. The floor of Dallman Ash Pond slopes from approximately 530 feet MSL along the southern perimeter to approximately 525 along the northern edge.

The CWLP FGDS Development Landfill Unit 2 is located directly to the east of the Dallman Ash Pond. CWLP has owned and operated the FGDS Development Landfill since 1988. Prior to 1988, the facility was owned and operated by the private corporation Environmental Site Developers, Inc. The original design for Landfill Unit 2 designated three disposal areas identified as Cells 1, 2, and 3. In September 1993, the Illinois Environmental Protection Agency (“IEPA”) approved an application seeking the separation of the active Cell 1 from the then-undeveloped Cells 2 and 3. This created Landfill Unit 1, which consists solely of the now-closed Cell 1, and Landfill Unit 2, which is comprised of Cells 2 and 3.

CWLP initiated development of Landfill Unit 2 in 1993, and IEPA issued a permit to operate Landfill Unit 2 under 35 Ill. Admin. Code Parts 811–814 on November 9, 1995. Landfill Unit 2 consists of approximately 22.3-acres of permitted disposal area separated into Cells 2 and 3. Cell 2 has not been developed and only 3.0 acres of Cell 3 has been developed. The IEPA operating permit authorizes Landfill Unit 2 to receive flue gas desulfurization (“FGD”) sludge (more commonly known as gypsum), bottom ash, fly ash, lime sludge from the Water Purification Plant, FGD wastewater treatment plant sludge, and Generating Facility wastewater treatment plant sludge.

The Landfill Unit 2 was constructed with a 5 foot recompacted clay liner overlain by a leachate collection system. The leachate collection system is composed of a 12-inch sand drainage layer on the floor grades with a geocomposite drain on the western and northern 10-percent sloped floor directly on the 5 foot recompacted clay liner. A geotextile fabric is directly above the 12-inch

sand drainage layer to prevent clogging of the sand. A leachate collection trench was centrally placed within the landfill running west to east over the 5 foot recompacted clay liner. The leachate collection trench is composed of a leachate collection pipe surrounded by gravel and wrapped in a geotextile fabric. The leachate collection pipe terminates into the leachate manhole riser on the east side of the landfill within the termination berm.

The lowest point of the 5 foot recompacted clay liner subgrade is approximately at an elevation of approximately 525 feet MSL and the lowest extent of the waste within the landfill is at an approximate elevation of 531 feet MSL, both near the central eastern point of the landfill near the leachate manhole riser. The remainder of the landfill is above these elevations.

3. SUBSURFACE CONDITIONS

3.1 Hydrogeologic Investigations

The subsurface conditions of the CWLP facility have been characterized through multiple subsurface investigations, including those prior to the CCR impoundment development, along the perimeter of the impoundments and including the hydrogeologic investigation at the CCR landfill located north of the Lakeside Ash Pond and east of the Dallman Ash Pond. These investigations span from June 1989 to present day. In chronological order, the investigations are:

- Professional Service Industries (PSI), June 1989. This investigation consisted of five soil borings within the east section of the south cell (Cell 1).
- Andrews Environmental Engineering, Inc., February 1990. This investigation was performed for Cell 2 and consisted of 13 soil borings. The drilling and testing were completed by PSI.
- Andrews Environmental Engineering, Inc., March 1990. This investigation was performed to install six wells at the Facility. The drilling and testing were completed by PSI.
- Patrick Engineering, Inc. (PEI), July 1992. This investigation was performed to further characterize the hydrogeology of the landfill setting.
- Stabilize, Inc., December 2008. This investigation installed three new monitoring wells as part of an assessment monitoring program for the landfill. The drilling, soil testing, and well construction were performed by Reynolds Well Drilling.
- CWLP, April 2010. This investigation was performed to install four piezometers on the west side of the CCR surface impoundments along Sugar Creek. The drilling and testing were completed by PSI.
- Stabilize, Inc., May 2011. This investigation installed four new monitoring wells to further the characterization of the CCR surface impoundments. The drilling, soil testing, and well construction were performed by PSI.

- Andrews Engineering, January 2012. This investigation was performed to replace CCR surface impoundment wells and install an additional background well. The drilling and well installation were completed by TerraDrill.
- Andrews Engineering, July 2017. This project included drilling peripheral to the Dallman Ash Pond and the installation of basal sand/bedrock interface wells at TW3E, TW3W and TW3N. TW3N is the replacement wells for AW-3 and is identified in the groundwater monitoring program as RW-3.
- Andrews Engineering, June 2019. This investigation advanced 7 direct push borings peripheral to the Dallman Ash Pond, GP-2, GP-3, GP-4, GP-5, GP-6 and GP-7 and included the installation 2 new monitoring wells (AP6 in boring GP6 and AP-7 in boring GP2) as part of an assessment program for the CCR ash impoundments.
- Andrews Engineering, February 2021. This investigation consisted of borings and construction of groundwater monitoring wells at 7 locations along the periphery of Dallman and Lakeside Ash Ponds; adjacent to Sugar Creek. These are identified as AP-8, AP-9, AP-10, AP11, AP-12, AP-13 and AP-14.
- Andrews Engineering, October 2023. This investigation consisted of 34 borings next to the impoundments and 4 next to landfill Unit 1, to investigate the CCR ash surface impoundment berm construction materials and the installation of 29 vibrating wire piezometers to characterize the stability of the berms. These are identified as B-1, B-1L, B-1LL, B-1U, B-1CCR, B-2, B-2L, B-2U, B-2CCR, B-3, B-3U, B-3CCR, B-4, B-4L, B-4U, B-4CCR, B-5, B-5L, B-5CCR, B-6, B-6L, B-6CCR, B-7, B-7L, B-7CCR, B8-L, B8-U, B-9L, B-9U, B-9CCR, B-10CCR, B-11U, B-12L, B-12U, B-13BN, B-13BS, B-13L, B-13LF. With the exception of B-4L, B-4U, B-4CCR, B-8U and B-11U, the borings were completed with vibrating wire sensors.
- Andrews Engineering, February 2024. This investigation consisted of 14 borings using a cone penetrometer adjacent to and within the Dallman and Lakeside Ash Ponds. These borings are identified as CPT-1CCR, CPT-2CCR, CPT-2L, CPT-3CCR, CPT-4CCR, CPT-4L, CPT 5CCR, CPT-6CCR, CPT-6L, CPT-7CCR, CPT-7L, CPT-10CCR, CPT-14CCR and CPT-15CCR.
- Andrews Engineering, April/May 2024. This investigation consisted of 4 borings advanced in the Dallman Ash Pond (D-1, D-2, D-3 and D-4) and 4 borings advanced in the Lakeside Ash Pond (L-1, L-3, L-4 and L-5). Wells were constructed to screen the bottom of the CCR in these borings. This investigation also included the advancement of borings T-1, T-2, T-4, T-5 and T-6 on the opposite side of Sugar Creek, west and north of the surface impoundment area and the advancement of a deep boring, B100, which was packer tested to characterize bedrock permeability.
- Hanson Professional Services, Inc. (Hanson), August 2024. This investigation consisted of a total of 12 borings, 5 through the Dallman Ash Pond (DB-01, DB-02, DB-03, DB-04 and DB-05) and 5 through the Lakeside Ash Pond (LB-01, LB-02, LB-03, LB-04 and

LB-05). Two of the Dallman Ash Pond borings were converted to piezometers (DB-04 and DB-05) and one of the borings in the Lakeside Ash Pond (LB02) was converted to a piezometer.

- Hanson, May/June 2025. This investigation consisted of 4 borings (D-06, D-07, D-08 and DW-01) completed as wells within the Dallman Ash Pond, and two of the borings, BH-01 and BH-02, were completed as wells along the berm that separates the Dallman Ash Pond from the clarification pond.
- Andrews Engineering, May 2025. This investigation consisted of the advancement of 21 borings (AP-6S, AP-6SA, AP-8S, AP-8SA, AP-15S, AP-15D, AP-16, AW-2, B2-LE, B-4E, B-6E, B-6LE, B-7E, B-7LE, G-104, G-104S, P-03D, P-03S, R-103, RW3S and T-4S) with the installation of 9 groundwater monitoring wells (AP-6SA, AP-8SA, AP-15S, AP-15D, AP-16, G-104S, P-03S, RW3S and T-4S). Seven of these borings (AW-2, B-2LE, B-4E, B-6E, B-6LE, B-7E and B-7LE) were completed to collect additional samples for characterization of the berm/foundation soils and one to verify previous boring log comments.

The investigations and related work conducted to date have provided sufficient information to characterize the site hydrogeologic conditions, including the uppermost saturated zone (i.e., basal sand) and the uppermost confining unit (i.e., bedrock). Figure 6 depicts all borings, monitoring wells/piezometers and vibrating wire locations. The site-specific geologic conditions have been refined through the advancement of additional borings during 2024 and 2025. Boring logs and well completion reports for these 2024 and 2025 investigations are included as Appendix A and Appendix B, respectively.

Data from these investigations has been used to create and refine the geologic cross-sections, with an emphasis on characterizing the primary hydrostratigraphic units. The geologic cross-sections have been updated to include information from these recent, 2024 and 2025 investigations. The revised geologic cross-sections are provided in Appendix C.

3.2 Uppermost Bedrock

The bedrock at the project site consists of Pennsylvanian aged shale that is gray in color with some coal seams. Erosion of the bedrock surface has occurred along the alluvial valley forming a south to north trough in which Sugar Creek is located. The bedrock increases in elevation to the eastern and western flanks of the bedrock trough. There appears to be a bedrock ridge which runs south southeast to north northwest at the northeast corner of the Dallman Ash Pond. At this location the bedrock elevation increases from approximately 497 feet MSL at RW3 to 527 feet MSL at GP-3, just north of Sugar Creek. Near the center of the landfill, the bedrock surface elevation varies from approximately 492 feet MSL to approximately 554 feet MSL at the southeast corner of Cell 1, boring B-14. Figure 7 depicts the bedrock surface elevations.

Rock Quality Designation (RQD) measurements were performed on core samples taken from the FGDS Landfill area. RQDs measured from core samples collected during this investigation ranges from 80% to 100%. The RQD values indicate that the bedrock exhibits minimal to no fracturing. Two in situ hydraulic conductivity tests were performed to determine the hydraulic conductivity of the upper portions of the bedrock. Test results indicate hydraulic conductivity values of 1.8×10^{-7} cm/sec and 1.3×10^{-6} cm/sec (Patrick, 1993). This shows that the bedrock encountered at the project site is a lower confining unit to the uppermost saturated zone. There is good correlation between the lithology of the rocks tested and the hydraulic conductivity values obtained. The upper bedrock beneath the impoundments is expected to exhibit the same characteristics as encountered at the landfill. RQD and slug test data for the Patrick 1989 application are included in Appendix D.

A 2024 investigation included the completion of deep boring B100. Located immediately north of the Dallman Ash Pond on adjacent to Sugar Creek the deep boring was advanced to 103.5 feet below ground surface (BGS). Bedrock at this location was encountered at 32.3 feet BGS (500.7 feet MSL). Packer testing was completed at seven intervals (i.e., 93 to 103.5 feet BGS, 82.5 to 93 feet BGS, 72 to 82.5 feet BGS, 61.5 to 72 feet BGS, and 51 to 61.5 feet BGS with the final two intervals overlapping 40.5 to 51 and 38.5 to 49 feet BGS). Test results indicate hydraulic conductivity below 482 feet MSL is less than 1×10^{-9} cm/sec. The results for the intervals tested above 482 feet MSL are invalid as a result of hydraulic fracturing of the bedrock and the resultant inability to establish a seal within the shallow bedrock portion of the borehole. The results confirm that bedrock below the weathered zone is relatively impermeable; however, the shallow weathered bedrock may have higher hydraulic conductivities and in direct hydraulic communication with the overlying basal sand such that the interface of the unconsolidated deposits and bedrock comprise the uppermost saturated zone. The packer test data from this investigation is included in Appendix D.

There is good correlation between the lithology of the rocks tested and the hydraulic conductivity values obtained. The upper bedrock beneath the impoundments is expected to exhibit the same characteristics as encountered at the landfill.

3.3 Surficial Deposits

The shallow stratigraphy and lithology at the CCR units include approximately 20 to 50 feet of unconsolidated sediments, dependent upon location. In ascending order (i.e., oldest to youngest) these materials are identified as basal sand, creek fill, lower cohesive deposit, shallow sand, upper cohesive deposit and fill material. For the FGDS Landfill, the hydrogeology is consistent with the adjacent impoundments, with the basal sand as the uppermost saturated zone. As described below, the uppermost unit directly beneath the CCR surface impoundment varies with the Lakeside Ash Pond resting directly on the upper cohesive deposit and the southern third of

the Dallman Ash Pond resting on the upper cohesive deposit and northern two-thirds resting on the lower cohesive deposit.

The overall tendency is for the finer-grained materials (clays, silty clays and silts) to overlie the coarser-grained materials (sands and gravels). This coarsening downward is present throughout much of the site. At the majority of the borehole locations, the coarser materials rest directly on top of the weathered bedrock surface. It is this coarser material, the basal sand, which is characterized as the uppermost saturated zone.

The occurrence of the deposits discussed below are variable due to the meandering nature of Sugar Creek prior to the development of Lake Springfield and Spaulding Dam. The meandering creek has resulted in sequential erosion and deposition (scour and fill) throughout much of the creek drainage system, both laterally and vertically.

3.3.1 Basal Sand

The basal sand generally overlies the bedrock surface and underlies the lower cohesive deposit. There are some pockets of very hard, fine-grained silty clay to clay overlying bedrock in a few areas. The basal sand is present above these pockets of clayey deposits, thought to be weathered bedrock. In most locations, the basal sand is the lower-most surficial deposit. The basal sand is a gray, poorly graded, silty to clayey fine sand to well graded sand with minor amounts of fine gravel. This unit is in a medium dense to dense condition. Across the CWLP facility (includes the Dallman and Lakeside Ash Ponds), the top elevation of the basal sand varies from 486.9 feet MSL (G113) to 535.1 feet MSL (GP-3) and the thickness ranges from absent to 18.6 feet. The unit was not consistently encountered, likely due to excessive erosion of the creek bottom. The surface of the Basal Sand is depicted in Figure 8. The thickness of the Basal Sand is depicted in Figure 9.

The basal sand generally consists of 0% to 34% gravel, 50% to 91% sand, and 6% to 44% silt/clay; and exhibits a horizontal hydraulic conductivity of ranging from 1.15×10^{-3} to 7.64×10^{-2} cm/sec. The geometric mean hydraulic conductivity is 1.25×10^{-2} cm/sec. The basal sand was saturated in all locations where it was encountered (Patrick, 1993). Grain size analyses are provided in Appendix E.

Hanson conducted slug testing on the FGDS Landfill and CCR Surface Impoundment groundwater monitoring wells and the ash impoundment CCR wells during March 2025. The basal sand wells exhibited hydraulic conductivities ranging from a minimum of 4.57×10^{-5} cm/sec to a maximum of 8.84×10^{-2} cm/sec. The geometric mean hydraulic conductivity of the basal sand is 1.86×10^{-3} cm/sec. The slug test data from Hanson is provided in Appendix D.

In August 2025 Andrews Engineering performed slug testing at Basal Sand wells AP-15D, AP-16 and P-03D. The slug testing results ranged from a minimum hydraulic conductivity of 2.62 x 10^{-5} cm/sec to a maximum of 4.03 x 10^{-3} cm/sec. The geometric mean hydraulic conductivity is 2.91 x 10^{-4} cm/sec. This value is in general agreement with that determined from previous investigations.

3.3.2 Lower Cohesive Deposit

The lower cohesive deposit consists of brown, gray, and brownish gray silty clays, clayey silts, and clays, having very soft to stiff consistency. Across the CWLP facility, the lower cohesive deposit is as much as 27 feet thick with an average thickness of about 11 feet. The deposit was not encountered in isolated areas along the abandoned creek, possibly due to excessive erosion of the creek bottom in these areas. The northern two-thirds of the Dallman Ash Pond rests directly on top of the lower cohesive deposit. The top of the lower cohesive deposit is depicted in Figure 10. The thickness of the lower cohesive deposit is depicted in Figure 11

The soils in the lower cohesive deposit can be similar in color and texture to the soils in the upper cohesive deposit. The distinction between the two deposits was based on the presence or changes in soil consistency (as measured with a calibrated hand held penetrometer) and a marked difference in moisture content. The lower cohesive deposit is not exposed at the ground surface in the investigation area.

The lower cohesive deposit consists of 0% gravel, 8% to 48% sand, and 52% to 95% silt/clay; and has a low hydraulic conductivity. The vertical hydraulic conductivity ranges from 1.3 x 10^{-8} to 1.8 x 10^{-6} cm/sec (triaxial permeameter). Based on these values, the average vertical hydraulic conductivity is 9.07 x 10^{-7}. The horizontal hydraulic conductivity ranges from 4.6 x 10^{-5} to 7.6 x 10^{-5} cm/sec (Patrick, 1993). Grain size analyses are provided in Appendix E.

As part of the 2023 geotechnical investigations conducted by Andrews Engineering, four borings were advanced in Lakeside Ash Pond and four borings in Dallman Ash Pond to confirm the bottom elevations of each impoundment. Borings L-1, L-3, L-4 and L-5 were advanced in Lakeside Ash pond where silty/clay materials were encountered at 534.5 feet MSL, 530.5 feet MSL, 553.0 feet MSL and 530.0 feet MSL, respectively. Borings D-1, D-2, D-3 and D-4 were advanced in Dalman Ash Pond where silty/clay materials were encountered at 526.0 feet MSL, 523.0 feet MSL, 526.2 feet MSL and 529.5 feet MSL respectively. The range of hydraulic conductivities for the silty/clay materials beneath Lakeside Ash Pond are from 6.8 x 10-6 cm/sec to 8.5 x 10-8 cm/sec with a geometric mean of 2.58 x 10-7 cm/sec. The range of hydraulic conductivities for the silty/clay materials beneath Dallman Ash Pond are from 2.1 x 10-6 cm/sec to 5.1 x 10-8 cm/sec with a geometric mean of 4.53 x 10-7 cm/sec.

3.3.3 Shallow Sand

The unit identified as the shallow sand is a fluvial deposit. Where it has been encountered, it is located between the top of the lower cohesive deposit and below the upper cohesive deposit. The discontinuous nature of the shallow sand is explained by the historical meandering nature of surface water across the area of investigation. Sediment deposition within a fluvial setting varies from fine-grained silts and clays to coarser sands, with the coarser materials being deposited as the water slows. As the creek flows into the inside of a bend, velocity decreases, causing the heaviest particles, typically sands and silty sands, to settle out first. Finer sediments remain suspended longer and are deposited further along the point bar or during overbank flooding. Because coarse-grained deposition is tied to localized drops in energy, such as those found only at specific points within the meander bends or during certain flood events, these deposits tend to be discontinuous. As a result, sand and silty sand lenses are often isolated within a matrix of finer material, creating a stratigraphic sequence that reflects the variable and shifting energy conditions of the meandering system.

The shallow sand was encountered on portions of the floor of FGDS Unit 2 Landfill and along the north side, and to a limited extent, west side of the Dallman Ash Pond from the middle of the north side to the eastern edge. The shallow sand was generally encountered between 515 feet MSL and 525 feet MSL, with some instance as low as 510 feet MSL and some as high as 530 feet MSL. This wide variation in elevations points to it variable deposition nature. Where encountered it is typically only a few feet in thickness or less. However, a thickness of 6 feet was observed in the undeveloped southern portion of Unit 2 and an approximate thickness of 7 feet was observed in boring AP15 west of the Lakeside Ash Pond. It appears the shallow sand may underlie a small section of the Lakeside Ash Pond where it is separated from the bottom of the Lakeside Ash Pond by approximately 8 feet of low permeability silty clay upper cohesive deposit. The shallow sand was not found to underlie the Dallman Ash Pond or Cell 3 of the Unit 2 Landfill. The extent and surface of the shallow sand is depicted in Figure 12. The thickness of the shallow sand is depicted in Figure 13.

Hydrogeologic cross-sections (e.g., Cross-Section A-A' and B-B') depict the limited extent of the shallow sand along the northern end and west side of the Dallman Ash Pond, respectively. These cross sections depict the shallow sand encountered at and above 525 feet MSL, but not intersecting CCR in saturated zones. Cross-section A-A' depicts the shallow sand present at AP-8, GP-4, TW3W and RW3.

According to the Grading Plan drawing by Burns & McDonnell (see Figure 5), the creek relocation project varied from an elevation of 520 feet MSL at the northwest corner to 516 MSL at the northeast corner. The drawing depicts that soils along the constructed creek channel were excavated along a 4:1 horizontal to vertical slope from the center line of the creek location channel and backfilled with cohesive soils essentially isolating the presence of the sand to a narrow band adjacent to the toe of the slope of the berm. This would result in the removal of the shallow sand

from the along the creek relocation area, essentially eliminating/removing the migration pathway of any fluvial sand deposits adjacent to the Dallman Ash Pond.

Along the west side of the Lakeside Ash Pond, a shallow sand appears in boring AP-15D and the B-2 series of borings used to characterize that portion of the Lakeside Ash Pond dike. A shallow sand was encountered at the location at approximately 525 feet MSL to 510 feet MSL. At this location, the bottom of the Lakeside Ash Pond is at approximately 535 feet MSL. This results in an approximate 10 foot vertical separation between the bottom of the Lakeside Ash Pond and the shallow sand at this location.

Laboratory tests performed on representative samples collected from the shallow sand unit during this and previous investigations indicate the shallow sand contains 0% gravel, 50% to 52% sand, and 48% to 50% silt/clay. Two FGDS Unit 2 Landfill piezometers (P06S and P07S) were screened in the shallow sand unit to obtain potentiometric surface information and conduct field hydraulic conductivity tests. The hydraulic conductivity of this unit based on the slug test results ranges from 3.6×10^{-3} to 2.9×10^{-2} cm/sec (Patrick, 1993). Grain size analyses are provided in Appendix E.

Hanson conducted slug testing on FGDS Unit 2 Landfill wells during March 2025. The Unit 2 shallow sand wells P06S and P07S exhibited hydraulic conductivities ranging from 1.53×10^{-3} cm/sec to a maximum of 3.35×10^{-3} cm/sec. The geometric mean hydraulic conductivity of the shallow sand is 2.29×10^{-3} cm/sec.

In August 2025 Andrews Engineering performed slug testing of the Shallow Sand wells AP6S, AP-15S, G-104S, P-03S, R-103S, and RW3S. The slug testing results ranged from a minimum hydraulic conductivity of 4.30×10^{-4} cm/sec to a maximum of 2.23×10^{-2} cm/sec. The geometric mean hydraulic conductivity is 1.53×10^{-3} cm/sec. This value is in general agreement with that determined from previous investigations.

3.3.4 Upper Cohesive Deposit

The upper cohesive deposit consists of brown, light brown to brownish-gray silty clays to clayey silts having soft to stiff consistency. The unit includes loess deposits and isolated pockets of fine-grained silty to clayey sand and at some location alluvial silts and silty clays. The upper cohesive deposit is laterally adjacent to the sidewall of the CCR surface impoundment. The top of the upper cohesive deposit is depicted in Figure 14. The thickness of the upper cohesive deposit is depicted in Figure 15.

The upper cohesive deposit has a low vertical hydraulic conductivity as determined by laboratory triaxial hydraulic conductivity tests from borings taken from the landfill investigation. The hydraulic conductivity values determined from the laboratory tests ranged from 5.2×10^{-7} cm/sec to

1.6 x 10 ^{5} cm/sec (Patrick, 1993). It is expected that the horizontal coefficient of hydraulic conductivity is greater than the vertical coefficient. Based on test results for the lower cohesive deposit, it is anticipated that the horizontal hydraulic conductivity for the upper cohesive deposit is in the range of 10^{-6} to 10^{-5} cm/sec (Patrick, 1993).

In 2024, four borings were conducted through both the Dallman and Lakeside Ash Ponds for the purposes of characterizing the geology immediately below the impoundments. Shelby tube samples were obtained from borings D-1, D-2, D-3 and D-4 (Dallman), and L-1, L-3, L-4 and L-5 (Lakeside). The geometric mean hydraulic conductivities of four samples under Dalman Ash Pond is 4.53 x 10^{-7} cm/sec. The geometric mean hydraulic conductivities of four samples under Lakeside Ash Pond is 2.58 x 10^{-7} cm/sec. The boring logs are provided in Appendix A and the laboratory hydraulic conductivity results are provided in Appendix E.

3.3.5 Creek Fill

Creek fill is the material used to abandon the former channel of Sugar Creek. Borings conducted along the abandoned creek (i.e., CB-1 through CB-4, CB-7 through CB-9, P-5D and P-8D) indicate that the creek fill is variable, ranging from silty clays to organic clays to silty sands. In some locations the CCR surface impoundment and CCR landfill dikes were constructed over the creek channel. The Grading Plan drawing by Burns & McDonnell (see Note 4 on Figure 5) indicates that where construction of a dike was over the former Sugar Creek channel, the creek fill was over excavated at least 4 feet below the existing channel banks and bottom and then filled with cohesive material and compacted to at 90%.

The cohesive soils are characterized as silty clay to organic silty clay which contain varying quantities of fine- to medium-grained sand. Wood fragments and other organic were typically encountered. In some areas, the cohesive fill materials extended down to the top of bedrock. The granular fill materials are typically poorly graded silty to clayey sands and contain organics or wood fragments. In some areas, the granular fill materials also extended down to the top of bedrock. The location of the creek abandonment is depicted on Figure 5.

The cohesive fill material contains 0% gravel, 2% to 48% sand, and 52% to 98% silt/clay. The vertical hydraulic conductivity ranges from 7.6 x 10^{-8} cm/sec to.2.1x10^{-5} cm/sec. The granular fill materials contain 0 to 2% gravel, 55% to 65% sand and 33% to 45% silt/clay. Based on one laboratory hydraulic conductivity test performed on a Shelby tube sample obtained from berm fill, the hydraulic conductivity of the granular fill material is 3.3 x 10^{-8} cm/sec (Patrick, 1993). Grain size analyses are provided in Appendix E.

Three landfill piezometers (P-3S, P-5S and P-8S) are screened across creek fill materials. Of these, one piezometer (P-5S) was installed across cohesive fill material (i.e., organic silty clay) and the other piezometers were installed across granular fill materials (i.e., clayey sand and silty

sand). Hydraulic conductivity of the granular fill materials ranged from a minimum of 7.1 x 10^{5} cm/sec to 1.5 x 10^{-2} cm/sec with a geometric mean of 6.02 x 10^{-4} cm/sec. The hydraulic conductivity of the cohesive fill material ranged from 7.1 x 10^{-5} cm/sec to 1.1 x 10^{-4} cm/sec, and an average of 8.6 x 10^{-5} cm/sec (Patrick 1993). These values represent the hydraulic conductivity in the horizontal direction.

The horizontal hydraulic conductivity values are believed to be typical of soils which contain organic matter (e.g. wood fragments). The hydraulic conductivity values based on laboratory tests are generally considered to be representative of the coefficient of hydraulic conductivity in the vertical direction because of the sample configuration during testing. However, because of the randomness of the fill, it is more likely that the hydraulic conductivity is within the range of 10^{-5} to 10^{-4} cm/sec (Patrick, 1993).

3.4 Hydrogeologic Units

The uppermost saturated zone and underlying confining unit control groundwater movement and the potential for CCR impacted groundwater migration at the site. A description of the uppermost saturated zone and the underlying confining unit follows:

3.4.1 Intermittent Saturated Shallow Sand

The shallow sand is the uppermost saturated interval. As described above, the shallow sand is encountered intermittently between the top of the lower cohesive deposit and below the upper cohesive deposit, primarily on portions of the FGDS Unit 2 Landfill floor and along the north and west sides of the Dallman Ash Pond, from the middle of the north side to the eastern edge. It occurs at elevations generally between 515 and 525 feet MSL, with variations from 510 to 530 feet MSL, and thicknesses typically a few feet or less, though up to 6-7 feet in isolated areas at boring AP-15. The intermittent saturated shallow sand appears to be under confined, semi-confined, or unconfined conditions dependent upon location. The unit may underlie a small portion of the Lakeside Ash Pond, separated by about 8-10 feet of low-permeability silty clay, but it is absent beneath the Dallman Ash Pond or the Unit 2 Landfill. Creek relocation excavations along the Dallman Ash Pond further limited its extent by removing sands adjacent to the berm slopes, as shown in hydrogeologic cross-sections and figures depicting its surface and thickness.

The shallow sand wells include AP-6S, AP-8S, AP-15S, G-113, P-03S, P-06S North, P-07S West, P-09S West, P-103S, P-104S, RW3S and T-4S. There are three complete sets of shallow groundwater elevation data: June, 25, 2025, July 21, 2025 and August 21, 2025. The shallow groundwater elevations range from a minimum of 518.98 to 537.67 feet MSL. The average shallow groundwater elevation is 527.08 feet MSL.

As described above, the creek relocation project resulted in the excavation of soils along the constructed creek channel (i.e., west to east creek bed elevations are 520 to 516 feet MSL) along

a 4:1 horizontal to vertical slope from the center line of the creek location channel. This excavation was then backfilled with cohesive soils essentially isolating the presence of the shallow sand to a narrow band adjacent to the toe of the slope of the northern berm. This would result in the removal of the shallow sand from the along the creek relocation area, essentially eliminating/removing the migration pathway of any fluvial sand deposits adjacent to the Dallman Ash Pond.

3.4.2 Uppermost Saturated Zone

The uppermost saturated zone is characterized as the basal sand overlying the shale bedrock. As indicated above, the hydraulic conductivity of the basal sand ranges from 1.15 x 10^{-3} to 7.64 x 10^{-2} cm/sec and exhibits a mean value of 1.25 x 10^{-2} cm/sec. The groundwater in the basal sand appears to be under semi- to confined conditions. The upper limit of the uppermost saturated zone is dependent upon the seasonally fluctuating groundwater table. The potentiometric surface of the basal sand varies from 565 feet MSL at upgradient locations (i.e., AP5), south of the Lakeside Ash Pond, to 525 feet MSL at down-gradient locations near Sugar Creek, north of the Dallman Ash Pond. As a result, the potentiometric surface is variably dependent upon the location and the seasonal variation.

Creek fill material was encountered in FGDS Unit 2 Landfill locations CB-1, CB-2, CB-3, CB-4, P-3D, P-5D, B1-89, B6-89, B11-89, B12-89, B17-89 and G-104. The creek fill materials directly overlay the basal sand at P-5D, B1-89, B6-89 and B11-89. At these locations the creek fill is a silty clay, effectively eliminating the creek fill as a flow path. Due to the highly variable hydraulic characteristics and random placement of the creek fill materials, further characterization is difficult. The creek fill material does not present a contaminant flow path from the CCR units to the basal sand. The basal sand appears to be separated from the overlying CCR units by the upper and lower cohesive deposit, and or soils recompacted under the dikes where the dikes intersected the former creek channel and where the creek realignment effectively removed the high permeability soils.

3.4.3 Lower Confining Unit

The uppermost bedrock at the project site is primarily Pennsylvanian age shale with isolated thin coal layers. The Pennsylvanian shale functions as a lower confining unit due to its low hydraulic conductivity and effective porosity. The lower confining unit represents a natural hydrogeologic barrier (i.e., aquitard) to the vertical movement of groundwater.

In situ hydraulic conductivity test (slug tests) indicate that the hydraulic conductivity for the upper portions of the bedrock range from 1.8 x 10^{-7} cm/sec (0.0568 m/a) to 1.3 x 10^{-6} cm/sec (0.410 m/a) (Patrick, 1993). There appears to be good correlation between the rock lithology and the measured values of hydraulic conductivity. The bedrock over most of the site will act as an aquiclude and prevent the downward movement of groundwater.

3.5 Groundwater Elevations and Pool Levels

Static groundwater elevations were measured on a monthly schedule during 2025. Intermittent saturated shallow sand wells AP-6S, AP-8S, AP-15S, P-03S, P-103S, P-104S, RW3S and T-4S were installed in June 2025. The collection of groundwater elevations at these wells commenced June 2025. A summary of the groundwater elevations (in feet MSL) is provided in Table 1. This table includes all monitoring points including the adjacent surface water bodies: Lake Springfield, the clarification pond, and Sugar Creek. Also included in this table are pore water elevations for the Dallman Ash Pond and Lakeside Ash Pond wells (i.e., D and L wells, respectively).

There appears to be a slight seasonal variation in groundwater and pore water levels with higher levels generally observed during April and the lowest elevations observed during August 2025. The horizontal hydraulic gradient of the basal sand was calculated based on groundwater flow from well G-110 to well P-106. Using these wells, a horizontal hydraulic gradients was calculated for averages of the 2025 reported groundwater elevations for these wells/piezometers. As presented below, the horizontal hydraulic gradient within the basal sand exhibits an average of 0.00591 ft/ft.

Vertical hydraulic gradient were calculated for the nested groundwater monitoring well/piezometer locations AP-6/AP-6S, AP-8/AP8S, AP-15D/AP-15S, P-03D/P-03S, P-06R/P-06R/P-06S, P-07D/P-07M/P-07S, P-09D/P-09S, P-103/P-103S, P-104/P-104S, and RW3/RW3S. The vertical hydraulic gradients are summarized in Table 2. With the exception of the vertical hydraulic gradients at well pairs AP-15D/AP-15S, P-103/P-103S, P-104/P-104S and RW3/RW3S, the vertical hydraulic gradients are positive (i.e., upward). The overall upward hydraulic gradient is consistent with the characterization of the basal sand being a confined unit.

Well pairs AP-15D/AP-15S and RW3/RW3S are located along the western and northern perimeter of Dallman Ash Pond, respectively. Well pairs P-103/P-103S and P-104/P-104S are located along the northern perimeter of Unit 2. These well pairs are located along the periphery of the Dallman Ash Pond and Unit 2 in the where the shallow sand appears to be the thickest.

3.6 Potentiometric Surface Maps

Groundwater movement is controlled by recharge along topographic highs and discharge along the original stream valley. The pre-surface impoundment flow direction in the uppermost saturated zone was dominantly horizontal from the adjacent banks toward the natural convergence along Sugar Creek, which formerly drained the site. The overall groundwater movement was from south to north with local deviations. This dominant flow pattern persists under present day conditions but with localized variation introduced by the hydrologic discontinuity created upon construction of the FGDS Landfill and CCR surface impoundments.

Existing wells at the site, including wells from the FGDS Landfill, were used to derive potentiometric surface maps. As discussed, overall groundwater flow is from south to north. The east perimeter of the Lakeside Ash Pond is largely up-gradient, and the west side is downgradient to side-gradient. Excavated areas within the landfill boundary act as a groundwater sink along the east side of the Dallman Ash Pond. Groundwater generally moves northward under the Dallman Ash Pond but also moves easterly towards the FGDS Landfill and westerly towards Sugar Creek. Groundwater beneath the Lakeside Ash Pond also moves northward and westerly along Sugar Creek.

The impoundments likely influence local groundwater dynamics by increasing potentiometric pressures beneath and around their footprints. However, there are no piezometers screened in the basal sand beneath the impoundments. The increased pressures occur due to the sustained elevated water levels within the ponds during operation. This elevated head establishes an outward hydraulic gradient, promoting radial flow away from the mound toward lower-potential areas, such as nearby surface water bodies like Sugar Creek. The outward gradient is typically steeper near the impoundment boundaries due to the contrast between the artificially high heads inside the ponds and the ambient groundwater levels outside, often resulting in gradients on the order of 0.01-0.02 ft/ft as observed in site data. At this site, the elevated heads contribute to the observed eastward flow component near the FGDS Landfill and westward toward Sugar Creek, integrating with the broader south-to-north regime.

Potentiometric surface maps (derived from 2025 data, similar to Figure 3 in the 2024 Annual Report for well locations) show groundwater flow radially from the impoundments toward Sugar Creek. Contours indicate a hydraulic gradient of approximately 0.01-0.02 ft/ft, with flow directed west-northwest overall. Along the eastern portion near the FGDS Unit 2 Landfill, there is an eastward flow component toward the FGDS Unit 2 landfill, then northward toward Sugar Creek. Maps for each 2024 event confirm consistent directions, with minor fluctuations due to seasonal recharge. For the FGDS Landfill, flow is integrated into site-wide maps, with no separate potentiometric surfaces identified, but consistent with basal sand flow toward Sugar Creek. Potentiometric surface maps are provided in Appendix F.

4. EVALUATION OF PREFERENTIAL PATHWAYS

4.1 Abandoned Creek

The abandoned creek is not a contaminant migration pathway. The relocation of the creek occurred with the construction of Dallman Ash Pond (1976). Realignment of the creek channel required the over-excavation of the new channel by a minimum of 4 feet and backfilling with cohesive soils compacted to 90% maximum dry density. Construction plans, boring logs, and grain size analyses confirm low permeability of the creek fill. Cross-sections show fill materials mixed with onsite soils, removing the hydraulic connection between the abandoned

creek and the basal sand. The abandoned creek does not extend under the FGDS Unit 2 Landfill, though a portion exists north of FGDS Landfill Unit 2, where the relocated creek bed has an elevation of approximately 520 to 516 feet MSL.

Based on the geologic characterization of the site the abandoned creek bed has been removed or mixed with other on-site materials, which precludes it from being a potential pathway. See Figure 12 and Figure 13 which depict the surface of the Shallow Sand and the thickness relative to the pre-relocated Sugar Creek.

4.2 Shallow Sand Unit

The shallow sand is not hydraulically connected to the CCR units and is not a contaminant migration pathway due to the confined extent along the north. The shallow sand unit (intermittent deposits above 525 feet MSL), if present, was removed within pond footprints during construction. Borings did not encounter shallow sand intersecting CCR, and there is no evidence of communication with the lower cohesive unit or basal sand. New well AP6S, paired with AP6, confirms isolation (screened in shallow sand at 525-530 feet MSL). For the FGDS Landfill, shallow sand is not a significant pathway due to landfill construction. The 2025 elevation data for shallow wells (e.g., P-103S, P-104S) shows consistent levels with no anomalous fluctuations indicating preferential flow. Slug testing in shallow units (e.g., P-06S, P-07S) yields K values around 1-3E-03 cm/s, indicating limited conductivity.

As discussed above, the over-excavation and backfilling of the former creek channel and along the creek realignment further limits the horizontal connectivity of the intermittent saturated shallow sand. The Grading Plan drawing by Burns & McDonnell (Figure 5) depicts the creek abandonment and realignment north of the Dallman Ash Pond and Unit 2. The abandonment of the creek resulted in the over-excavation of at least 4 feet under the dike below the existing channel banks and bottom (see cross-sections), followed by filling with cohesive material and compaction to at least 90%. In addition to the excavation of soils under the dikes, realignment of the creek channel required the over excavation of the new channel by a minimum of 4 feet and backfilling with cohesive soils compacted to 90% maximum dry density. Construction plans, boring logs, and grain size analyses confirm low permeability of the creek fill. Cross-sections show fill materials mixed with onsite soils, removing direct hydraulic connection between the abandoned creek and the basal sand.

Pursuant to recommendations by the EPA, a boring was advanced about midway between AP4 and AP-14 on the west side of the Lakeside Ash Pond. A shallow sand was encountered from approximately 14.5 to 21.5 feet in depth; therefore, a shallow and a deep well were installed at that location (AP-15S and AP-15D, respectively). The shallow sand is illustrated in Cross Section B-B' (Appendix C). Based in the differential in groundwater elevation from AP-15S and the liquid level in the Lakeside Ash Pond, there is no apparent direct hydraulic connection

from the shallow sand to the ash pond. For purposes of monitoring the groundwater between wells AP4 and AP14, wells AP-15S and AP-15D are proposed to be added to the groundwater monitoring system.

4.3 Communication Between Basal Sand and Shallow Sand

The intermittent saturated shallow sand is not hydraulically connected to the basal sand. Boring logs and cross-sections confirm the lower cohesive unit separates the intermittent saturated shallow sand from the basal sand. Cross-sections A-A' and B-B' depict the geology along the north and west side of the Dallman Ash Pond and the west side of the Lakeside Ash Pond. Furthermore, potentiometric data indicate semi-confined conditions in the basal sand, with head differences from water table aquifers. Slug test data from the lower cohesive deposit (e.g., low conductivity approximately 10e-5 cm/s in cohesive units) supports the conclusions that the basal sand is under confined conditions.

5. GROUNDWATER ELEVATIONS RELATIVE TO CCR BASE

Both of the CCR surface impoundments, the Lakeside Ash Pond and the Dallman Ash Pond, were constructed above the static potentiometric surface. The potentiometric surface represents the total pressure within a water-bearing unit to which the water will rise in a well/piezometer that is sealed in and penetrates the water-bearing unit. Given that the basal sand is overlain by the low hydraulic conductivity lower cohesive deposit, the basal sand is semi-confined. The potentiometric surface does not represent a water table setting. The potentiometric surface can be higher than the actual presence of water since its movement is restricted by the overlying clayey deposit. Constructing the ash ponds into or below the static water level would have been impractical and not economically feasible to attempt. As depicted in Figure 3, the historical use of the Lakeside parcel was agricultural/pasture. The parcels containing the Dallman Ash Pond and the Unit 2 Landfill were previously woodlands except on the southeast corner (agricultural/pasture).

A historic topographic map from 1950 for the site is presented as Figure 4. This figure depicts the preconstruction ground surface within the area of the CWLP CCR units. Based upon this figure, the preconstruction ground surface ranged from 540 feet MSL along the southern edge of the Lakeside Ash Pond and the northern edge of the Dallman Ash Pond down to 530 feet MSL adjacent to Sugar Creek. As indicated above, the Lakeside Ash Pond and Dallman Ash Pond were constructed at or just below the pre-existing land surface. Prior to construction, Sugar Creek meandered from the southwest corner of the site, exiting at the northeast corner of the site. There is no as-built construction documentation for the Lakeside Ash Pond or for the Dallman Ash Pond. Figure 5 is the proposed grading plan for the Dallman Ash Pond. According to Figure 5, the typical elevation of the floor of the Dallman Ash Pond is approximately 527 feet MSL.

The typical surface water elevation of Sugar Creek is approximately 520 feet MSL (average for 2025 monthly elevations is 520.56) based on creek elevations obtained at the time of potentiometric surface measurements. These results indicate an approximate separation between the base of the Dallman Ash Pond and the static surface water level.

The D and L series borings/wells are located entirely within the CCR material in the Dallman Ash Pond and Lakeside Ash Pond, respectively, and serve as piezometers to measure liquid levels within the impoundments. Liquid levels in the Dallman Ash Pond (D series wells) range from approximately 546 to 550 feet MSL across 2025 monitoring events, with averages around 548-550 feet MSL (e.g., D-1 at 547.69-550.41 feet MSL, D-2 at 549.44-550.85 feet MSL, D-3 at 546.89-550.04 feet MSL, D-4 at 546.99-549.53 feet MSL). In the Lakeside Ash Pond (L series wells), liquid levels are similarly elevated, ranging from 550 to 559 feet MSL (e.g., L-1 at 550.33-551.37 feet MSL, L-3 at 550.71-551.84 feet MSL, L-4 at 558.45-559.45 feet MSL, L-5 at 549.51-551.05 feet MSL). The liquid levels are precipitation that falls within the impoundment boundaries.

These impoundment liquid levels are consistently higher than the potentiometric surfaces in adjacent monitoring wells screened in the uppermost saturated zone. For example, downgradient wells such as AP-1 (524-527 feet MSL) and AP-2 (528-529 feet MSL) exhibit hydraulic heads 20-30 feet lower than the pond levels, indicating a downward hydraulic gradient from the impoundments to the underlying aquifer. This is further substantiated by the saturated intervals encountered at the borings advanced through the dikes (i.e., B-5, B-6, B-7, B-8 and B-9 series of borings conducted in 2023). The pore water levels within the berms are closer to the potentiometric surface exhibited outside of the impoundments, and very different from the liquid levels exhibited by the piezometers within the CCR surface impoundments.

Pre-closure dewatering will lower impoundment levels within the CCR, eliminating the downward gradient. The confining lower cohesive unit (low $K < 10 \times 10^{-5}$ cm/s) limits vertical migration, confining transport to lateral flow in the basal sand. As stated previously, Sugar Creek is a gaining creek, being fed not only by any lake water from the spillway, but from the basal sand. Once dewatering in the impoundment has been completed as part of closure activities, the potentiometric surface in the basal sand is expected to decrease to levels near that of the creek, below that of bottom of the Dallman Ash Pond. Given the low hydraulic conductivity of the lower cohesive deposit between the basal sand and the bottom of the Dallman Ash Pond, a temporary increase in the potentiometric surface due to an increase in creek level will not result in fluctuation of the potentiometric surface into the ash pond. The low hydraulic conductivity will restrict vertical upward movement of groundwater thereby continuing separation of the potentiometric surface and the ash pond.

The bottom of the five-foot recompacted clay liner for the FGDS Unit 2 Landfill extended to a minimum depth of approximately 525 feet MSL; the surface of the liner is approximately 530 feet MSL. The FGDS Landfill was designed and constructed above the uppermost saturated zone. The landfill contains a leachate collection system designed to maintain the liquid level to less than

one foot of head on the liner. Upon closure, the landfill will install a composite final cover. The leachate collection system will continue to operate for a minimum 30 years after closure pursuant to 35 Ill. Admin. Code Part 811.

6. RECENT ADDITION OF PIEZOMETERS

Borings were advanced and piezometers installed at these locations to further characterize the hydrogeologic conditions of the CWLP facility and to identify potential migration pathways. Completed in June 2025 the installed piezometers are:

- At the northeast corner of the FGDS Development area, paired with P-103 (designated as P-103S).
- Northeast of the Unit 2 CCR disposal area, paired with G-104 (designated as P-104S).
- At the northeast corner of the Dallman Ash Pond, paired with RW3 (designated as RW3S).
- In the shallow sand unit, paired with well AP-6 (designated as AP-6S).
- In the shallow sand unit paired with AP-8 (designated as AP8-S).
- On the far side of Sugar Creek, paired with T4 (designated T4S)
- North of well T-5 (designated AP-16).
- Between wells AP-14 and AP-4 (designated as AP-15S and AP-15D).

Wells AP-15S and AP-15D will be incorporated into the groundwater monitoring system. The remaining piezometers shall be maintained solely for the continued measurement of groundwater elevations. CWLP does not identify these piezometers as groundwater monitoring wells and does not anticipate the collection of analytical samples from these wells. The piezometer network is sufficient to provide a full characterization of the flow characteristics.

7. ANNUAL EVALUATION

This report will be evaluated annually to determine if groundwater flow paths have changed (e.g., due to climate or site modifications) or if additional wells are necessary for detecting/assessing Appendix III/IV releases. Changes will be reported in annual GWMCA Reports, with the first evaluation in August 2026.

8. CONCLUSION

This Flow Path Report provides a comprehensive characterization of groundwater flow paths at the CWLP Dallman and Lakeside Ash Ponds and FGDS Disposal Facility, in fulfillment of the requirements outlined in Section B, Paragraph 263 and Section B, Paragraph 280 of the CAFO and Attachment 1. Through integration of extensive site-specific data, including boring logs, well construction details, groundwater elevations, potentiometric maps, hydrogeologic cross-sections,

and slug testing results, the analysis demonstrates that groundwater flow is predominantly radial from the impoundments toward Sugar Creek, with an eastward component influencing the FGDS area before converging northward. Hydraulic gradients average 0.01-0.02 ft/ft, with seasonal fluctuations driven by recharge, but no significant deviations or reversals observed.

The report confirms no additional preferential pathways exist: the abandoned creek bed has been over-excavated, filled, and compacted beneath the perimeter berms for the Dallman Ash Pond, exhibiting low permeability ($K=10^{-5}$ to 10^{-4} cm/s) that precludes enhanced transport; the shallow sand unit is discontinuous, largely removed during construction, and shows no connectivity to the basal sand. The shallow sand is present at AP-15 and along the exterior of the northern berm of the Dallman Ash Pond. However, the shallow sand does not appear to directly intersect with the CCR as the potentiometric surfaces in the shallow wells are indicative of groundwater elevations largely unaffected by the much higher liquid levels within the impoundment. The shallow sand appears isolated north of the pond due to excavation and relocation of Sugar Creek. Therefore, monitoring of the shallow sand along the northern perimeter is not necessary. However, it is proposed to add wells AP15S and AP-15D located west of the Lakeside Ash Pond to the impoundment groundwater monitoring program. A revision to the subject detection monitoring program will be forthcoming with the inclusion of AP-15S and AP-15D.

Vertical communication between units is de minimis, with the lower cohesive deposit acting as an effective confining layer ($K \sim 10^{-7}$ cm/sec) restricting migration to lateral flow within the confined basal sand. Borings were advanced and piezometers installed at these locations to enhance the hydrogeology understanding of the site with an emphasis on further characterization of the migration pathways at the CWLP facility. The installation of additional piezometers/monitoring wells is not necessary at this time.

These findings meet CAFO objectives by delineating flow dynamics, ruling out high-risk pathways, and supporting the Assessment of Corrective Measures through a complete hydrogeologic characterization. Annual evaluations will ensure adaptive management, with the first review scheduled for August 2026.

9. ENGINEERING CERTIFICATION

The owner or operator of a coal combustion residual (CCR) unit must obtain a certification from a qualified professional engineer that the Flow Path Report has been completed pursuant to 40 C.F.R. § 257.91(b)(1).

The engineering certification for the groundwater monitoring system follows.

10. REFERENCES

Stabilize, Inc. 2009. City Water Light and Power – 35 IAC 620 Ash Pond Assessment

Patrick Engineering, 1993. Hydrogeologic Report on Flue Gas Desulfurization Sludge Landfill.

Professional Engineer Certification – Flow Path Report

In General Accordance with 40 CFR § 257.91(b)(1) - Groundwater Flow Path

In accordance with Title 40 of the Code of Federal Regulations (40 CFR), Part 257, Subpart D, Section 257.91(b)(1) the owner or operator of a coal combustion residuals (CCR) unit must obtain certification from a qualified professional engineer verifying the accuracy of the information in the Flow Path Report.

I, Karl W. Finke, a qualified professional engineer in good standing in the State of Illinois, certify that the information provided in the Flow Path Report for the CWLP impoundments and FGDS Unit 2 Landfill is accurate.



Signature: _____

Illinois P.E. No: 062.068571

Date: September 22, 2025

Lic. Exp: 11/30/25

TABLES

TABLE 1:
GROUNDWATER ELEVATIONS

Table 1: Groundwater Elevations
CWLP, Springfield, Illinois

Well/Location	Elev. Of Meas. Point	Grnd. Surface	Stick Up	1/27/2025			2/25/2025			3/28/2025		
				DTW from Meas. Pt	DTW from Grnd	GW Elev	DTW from Meas. Pt	DTW from Grnd	GW Elev	DTW from Meas. Pt	DTW from Grnd	GW Elev
R101	546.8	543.57	3.23	6.49	3.26	540.31	6.89	3.66	539.91	6.44	3.21	540.36
P103	537.43	534.47	2.96	9.40	6.44	528.03	9.43	6.47	528.00	9.13	6.17	528.30
P103S	537.637	535.852	1.785	NI	NI	NI	NI	NI	NI	NI	NI	NI
P104	531.79	529.15	2.64	7.98	5.34	523.81	7.91	5.27	523.88	7.86	5.22	523.93
P104S	532.669	529.742	2.927									
P106	524.79	523.24	1.55	1.55	0.00	523.24	1.96	0.41	522.83	1.55	0.00	523.24
G110	555.92	553.79	2.13	23.49	21.36	532.43	24.40	22.27	531.52	24.37	22.24	531.55
R111	552.4	552.51	-0.11	25.15	25.26	527.25	25.04	25.15	527.36	25.06	25.17	527.34
G112	553.3	550.41	2.89	27.58	24.69	525.72	28.49	25.60	524.81	27.58	24.69	525.72
G113	536.77	533.64	3.13	4.51	1.38	532.26	5.01	1.88	531.76	4.60	1.47	532.17
G120	551.74	551.78	-0.04	15.87	15.91	535.87	15.89	15.93	535.85	15.66	15.70	536.08
G121	554.33	551.81	2.52	28.14	25.62	526.19	28.25	25.73	526.08	27.93	25.41	526.40
G122	553.28	550.97	2.31	26.71	24.40	526.57	29.72	27.41	523.56	29.66	27.35	523.62
G123	553.212	550.523	2.689									
P03D	533.203	530.018	3.185									
P03S	532.75	529.985	2.765	NI	NI	NI	NI	NI	NI	NI	NI	NI
P04D	539.67	534.64	5.03	7.98	2.95	531.69	12.42	7.39	527.25	12.41	7.38	527.26
P05D	536.92	533.64	3.28	6.02	2.74	530.90	5.88	2.60	531.04	5.96	2.68	530.96
P06S North	526.83	523.96	2.87	2.87	0.00	523.96	2.87	0.00	523.96	2.91	0.04	523.92
P06D Middle	529.8	523.96	5.84	5.84	0.00	523.96	5.84	0.00	523.96	5.84	0.00	523.96
P06R South	531.2	524.7	6.5	6.50	0.00	524.70	6.50	0.00	524.70	6.50	0.00	524.70
P07S West	527.39	525.08	2.31	5.28	2.97	522.11	3.00	0.69	524.39	4.74	2.43	522.65
P07D North	528.25	525.25	3	4.44	1.44	523.81	4.49	1.49	523.76	4.48	1.48	523.77
P07M East	527.04	525.02	2.02	4.31	2.29	522.73	2.02	0.00	525.02	4.51	2.49	522.53
P09S West	554.47	550.78	3.69	29.46	25.77	525.01	29.44	25.75	525.03	29.57	25.88	524.90
P09D East	554.84	551.47	3.37	29.08	25.71	525.76	28.93	25.56	525.91	29.14	25.77	525.70
AW-1	554.42	551.24	3.18	13.33	10.15	541.09	13.45	10.27	540.97	13.31	10.13	541.11
AW-2	528.25	525.02	3.23	4.56	1.33	523.69	4.53	1.30	523.72	4.50	1.27	523.75
RW3	538.42	535.65	2.77	9.99	7.22	528.43	9.56	6.79	528.86	9.55	6.78	528.87
RW3S	538.391	535.867	2.524	NI	NI	NI	NI	NI	NI	NI	NI	NI
TW3 West	538.293	535.833	2.46	11.37	8.91	526.92	11.21	8.75	527.08	11.08	8.62	527.21
AP-1	535.37	533.1	2.27	10.94	8.67	524.43	10.79	8.52	524.58	10.40	8.13	524.97
AP-2	536.1	533.6	2.5	7.88	5.38	528.22	7.87	5.37	528.23	7.47	4.97	528.63
AP-3	535.25	532.7	2.55	9.87	7.32	525.38	9.75	7.20	525.50	9.56	7.01	525.69
AP-4	555.6	552.46	3.14	10.88	7.74	544.72	10.68	7.54	544.92	10.76	7.62	544.84
AP-5	583.9	581.6	2.3	15.38	13.08	568.52	14.98	12.68	568.92	14.73	12.43	569.17
AP6	536.796	534.155	2.641	8.57	5.93	528.23	8.56	5.92	528.24	8.21	5.57	528.59
AP6S	536.854	533.959	2.895	NI	NI	NI	NI	NI	NI	NI	NI	NI
AP7	537.89	534.99	2.9	11.86	8.96	526.03	11.92	9.02	525.97	11.47	8.57	526.42
AP8	540.3	537.2	3.1	5.51	2.41	534.79	5.51	2.41	534.79	5.10	2.00	535.20
AP8S	538.585	535.974	2.611	NI	NI	NI	NI	NI	NI	NI	NI	NI
AP9	537.2	534.3	2.9	13.13	10.23	524.07	13.29	10.39	523.91	12.62	9.72	524.58
AP10	537.5	534.4	3.1	2.98	-0.12	534.52	4.04	0.94	533.46	3.88	0.78	533.62
AP11	538.1	535.3	2.8	15.22	12.42	522.88	15.24	12.44	522.86	14.57	11.77	523.53
AP12	540.7	537.8	2.9	18.06	15.16	522.64	18.08	15.18	522.62	17.51	14.61	523.19
AP13	542	538.6	3.4	18.46	15.06	523.54	18.44	15.04	523.56	17.28	13.88	524.72
AP14	539.6	536.8	2.8	2.30	-0.50	537.30	2.39	-0.41	537.21	2.34	-0.46	537.26
AP15D	538.609	536.295	2.314	NI	NI	NI	NI	NI	NI	NI	NI	NI
AP15S	538.532	536.417	2.115	NI	NI	NI	NI	NI	NI	NI	NI	NI
AP16	539.275	536.936	2.339	NI	NI	NI	NI	NI	NI	NI	NI	NI
GP1	537.72	535.62	2.1	11.91	9.81	525.81	11.89	9.79	525.83	11.61	9.51	526.11
GP3	550.41	547.56	2.85	21.57	18.72	528.84	21.08	18.23	529.33	20.06	17.21	530.35
GP7	535.74	533.25	2.49	8.15	5.66	527.59	8.11	5.62	527.63	7.89	5.40	527.85
T1	535.65	533.65	2	13.93	11.93	521.72	13.84	11.84	521.81	12.61	10.61	523.04
T2	549.62	547.22	2.4	25.39	22.99	524.23	25.65	23.25	523.97	24.71	22.31	524.91
T4	548.94	546.56	2.38	18.66	16.28	530.28	18.41	16.03	530.53	16.94	14.56	532.00
T4S	549.044	546.754	2.29	NI	NI	NI	NI	NI	NI	NI	NI	NI
T5	540.66	538.15	2.51	8.33	5.82	532.33	7.99	5.48	532.67	6.42	3.91	534.24
T6	538.32	535.96	2.36	9.87	7.51	528.45	9.8	7.44	528.52	9.4	7.04	528.92
L1 Deep	572.31	568.96	3.35	21.75	18.40	550.56	21.96	18.61	550.35	21.98	18.63	550.33
L1 Shallow	571.09	568.861	2.229	NI	NI	NI	NI	NI	NI	20.74	18.51	550.35
LB2 Deep	570.639	568.057	2.582	NI	NI	NI	NI	NI	NI	19.61	17.03	551.03
LB2 Shallow	570.452	568.136	2.316	NI	NI	NI	NI	NI	NI	19.39	17.07	551.06
L3 Deep	565.88	563.02	2.86	15.11	12.25	550.77	15.13	12.27	550.75	15.17	12.31	550.71
L3 Shallow	565.762	562.971	2.791	NI	NI	NI	NI	NI	NI	14.96	12.17	550.80
L4	568.58	566.25	2.33	9.76	7.43	558.82	10.13	7.80	558.45	9.74	7.41	558.84
L5 Deep	568.01	565.19	2.82	18.38	15.56	549.63	18.5	15.68	549.51	18.28	15.46	549.73
L5 Shallow	567.747	565.25	2.497	NI	NI	NI	NI	NI	NI	16.97	14.47	550.78
D1 Deep	566.2	564.02	2.18	17.44	15.26	548.76	17.28	15.10	548.92	17.27	15.09	548.93
D1 Shallow	566.333	563.871	2.462	NI	NI	NI	NI	NI	NI	17.21	14.75	549.12
D2 Deep	560.93	558	2.93	11.25	8.32	549.68	10.84	7.91	550.09	10.88	7.95	550.05
D2 Shallow	560.503	557.849	2.654	NI	NI	NI	NI	NI	NI	10.20	7.55	550.30
D3 Deep	557.9	555.03	2.87	10.21	7.34	547.69	9.55	6.68	548.35	10.49	7.62	547.41
D3 Shallow	557.743	554.673	3.07	NI	NI	NI	NI	NI	NI	10.71	7.64	547.03
D4	565.61	561.8	3.81	17.64	13.83	547.97	17.65	13.84	547.96	17.22	13.41	548.39
DB04 Deep	556.298	553.706	2.592	NI	NI	NI	NI	NI	NI	8.10	5.51	548.20
DB04 Shallow	556.433	553.548	2.885	NI	NI	NI	NI	NI	NI	7.93	5.05	548.50
DB05 Deep	555.82	553.385	2.435	NI	NI	NI	NI	NI	NI	7.77	5.33	548.05
DB05 Shallow	555.912	553.563	2.349	NI	NI	NI	NI	NI	NI	7.78	5.43	548.13
DB06	553.694	552.765	0.929	NI	NI	NI	NI	NI	NI	NI	NI	NI
DB07	555.798	552.754	3.044	NI	NI	NI	NI	NI	NI	NI	NI	NI
DB08	554.332	551.8	2.532	NI	NI	NI	NI	NI	NI	NI	NI	NI
Sugar Creek	510.44	NA	NA	9.77	NA	520.21	9.55	NA	519.99	9.8	NA	520.24
Lake Springfield	NA	NA	NA	NA	NA	559.59	NA	NA	559.58	NA	NA	559.63
Clarification Pond	553.29	NA	NA	6.6	NA	546.69	7.3	NA	545.99	7.3	NA	545.99

Notes:
NI - Not Installed
NA - Not Applicable

Table 1: Groundwater Elevations
CWLP, Springfield, Illinois

Well/Location	Elev. Of Meas. Point	Grnd. Surface	Stick Up	4/20/2025			5/29/2025			6/25/2025		
				DTW from Meas. Pt	DTW from Grnd	GW Elev	DTW from Meas. Pt	DTW from Grnd	GW Elev	DTW from Meas. Pt	DTW from Grnd	GW Elev
R101	546.8	543.57	3.23	5.19	1.96	541.61	6.88	3.65	539.92	7.12	3.89	539.68
P103	537.43	534.47	2.96		-2.96	537.43		-2.96	537.43	11.62	8.66	525.81
P103S	537.637	535.852	1.785	NI	NI	NI	NI	NI	NI	11.87	10.09	525.77
P104	531.79	529.15	2.64	7.04	4.40	524.75	7.61	4.97	524.18	8.57	5.93	523.22
P104S	532.669	529.742	2.927				NI	NI	NI	9.28	6.35	523.39
P106	524.79	523.24	1.55	1.55	0.00	523.24	1.67	0.12	523.12	1.55	0.00	523.24
G110	555.92	553.79	2.13	23.97	21.84	531.95	24.85	22.72	531.07	24.96	22.83	530.96
R111	552.4	552.51	-0.11	24.66	24.77	527.74	25.19	25.30	527.21	25.51	25.62	526.89
G112	553.3	550.41	2.89	27.27	24.38	526.03	17.54	14.65	535.76	17.77	14.88	535.53
G113	536.77	533.64	3.13	4.01	0.88	532.76	5.80	2.67	530.97	5.83	2.70	530.94
G120	551.74	551.78	-0.04	15.00	15.04	536.74	16.18	16.22	535.56	16.15	16.19	535.59
G121	554.33	551.81	2.52	27.27	24.75	527.06	28.13	25.61	526.20	27.93	25.41	526.40
G122	553.28	550.97	2.31	28.72	26.41	524.56	29.13	26.82	524.15	30.31	28.00	522.97
G123	553.212	550.523	2.689							30.26	27.57	522.95
P03D	533.203	530.018	3.185							7.82	4.64	525.38
P03S	532.75	529.985	2.765	NI	NI	NI	NI	NI	NI	9.89	7.13	522.86
P04D	539.67	534.64	5.03	12.26	7.23	527.41	13.22	8.19	526.45	13.66	8.63	526.01
P05D	536.92	533.64	3.28	5.45	2.17	531.47	6.09	2.81	530.83	6.23	2.95	530.69
P06S North	526.83	523.96	2.87	2.91	0.04	523.92	2.99	0.12	523.84	2.87	0.00	523.96
P06D Middle	529.8	523.96	5.84	5.84	0.00	523.96	6.12	0.28	523.68	5.84	0.00	523.96
P06R South	531.2	524.7	6.5	6.50	0.00	524.70	6.72	0.22	524.48	6.50	0.00	524.70
P07S West	527.39	525.08	2.31	4.14	1.83	523.25	4.89	2.58	522.50	6.71	4.40	520.68
P07D North	528.25	525.25	3	3.88	0.88	524.37	5.31	2.31	522.94	5.43	2.43	522.82
P07M East	527.04	525.02	2.02	3.46	1.44	523.58	4.37	2.35	522.67	5.55	3.53	521.49
P09S West	554.47	550.78	3.69	29.23	25.54	525.24	30.44	26.75	524.03	29.67	25.98	524.80
P09D East	554.84	551.47	3.37	28.80	25.43	526.04	29.65	26.28	525.19	29.73	26.36	525.11
AW-1	554.42	551.24	3.18	12.52	9.34	541.90	14.26	11.08	540.16	14.76	11.58	539.66
AW-2	528.25	525.02	3.23	3.72	0.49	524.53	5.35	2.12	522.90	5.44	2.21	522.81
RW3	538.42	535.65	2.77	8.94	6.17	529.48	9.27	6.50	529.15	9.85	7.08	528.57
RW3S	538.391	535.867	2.524	NI	NI	NI	NI	NI	NI	9.23	6.71	529.16
TW3 West	538.293	535.833	2.46	8.88	6.42	529.41	9.23	6.77	529.06	11.66	9.20	526.63
AP-1	535.37	533.1	2.27	8.11	5.84	527.26	9.79	7.52	525.58	10.50	8.23	524.87
AP-2	536.1	533.6	2.5	6.38	3.88	529.72	7.79	5.29	528.31	8.06	5.56	528.04
AP-3	535.25	532.7	2.55	8.39	5.84	526.86	7.67	5.12	527.58	9.32	6.77	525.93
AP-4	555.6	552.46	3.14	10.08	6.94	545.52	10.38	7.24	545.22	10.44	7.30	545.16
AP-5	583.9	581.6	2.3	13.48	11.18	570.42	14.41	12.11	569.49	14.63	12.33	569.27
AP6	536.796	534.155	2.641	7.00	4.36	529.80	7.77	5.13	529.03	8.47	5.83	528.33
AP6S	536.854	533.959	2.895	NI	NI	NI	NI	NI	NI	9.06	6.16	527.79
AP7	537.89	534.99	2.9	7.44	4.54	530.45	10.92	8.02	526.97	11.04	8.14	526.85
AP8	540.3	537.2	3.1	8.05	4.95	532.25	4.01	0.91	536.29	5.22	2.12	535.08
AP8S	538.585	535.974	2.611	NI	NI	NI	NI	NI	NI	11.45	8.84	527.14
AP9	537.2	534.3	2.9	10.18	7.28	527.02	12.86	9.96	524.34	12.80	9.90	524.40
AP10	537.5	534.4	3.1	2.94	-0.16	534.56	3.92	0.82	533.58	3.99	0.89	533.51
AP11	538.1	535.3	2.8	12.04	9.24	526.06	12.03	9.23	526.07	15.03	12.23	523.07
AP12	540.7	537.8	2.9	15.16	12.26	525.54	15.16	12.26	525.54	17.01	14.11	523.69
AP13	542	538.6	3.4	13.43	10.03	528.57	14.73	11.33	527.27	16.82	13.42	525.18
AP14	539.6	536.8	2.8	1.86	-0.94	537.74	2.72	-0.08	536.88	2.56	-0.24	537.04
AP15D	538.609	536.295	2.314	NI	NI	NI	NI	NI	NI	1.90	-0.41	536.71
AP15S	538.532	536.417	2.115	NI	NI	NI	NI	NI	NI	0.91	-1.21	537.62
AP16	539.275	536.936	2.339	NI	NI	NI	NI	NI	NI	6.95	4.61	532.33
GP1	537.72	535.62	2.1	10.80	8.70	526.92	12.88	10.78	524.84	12.32	10.22	525.40
GP3	550.41	547.56	2.85	17.91	15.06	532.50	19.64	16.79	530.77	19.54	16.69	530.87
GP7	535.74	533.25	2.49	7.32	4.83	528.42	7.46	4.97	528.28	8.14	5.65	527.60
T1	535.65	533.65	2	10.64	8.64	525.01	10.86	8.86	524.79	13.18	11.18	522.47
T2	549.62	547.22	2.4	23.23	20.83	526.39	23.83	21.43	525.79	23.92	21.52	525.70
T4	548.94	546.56	2.38	14.06	11.68	534.88	17.24	14.86	531.70	16.68	14.30	532.26
T4S	549.044	546.754	2.29	NI	NI	NI	NI	NI	NI	16.44	14.15	532.60
T5	540.66	538.15	2.51	4.28	1.77	536.38	9.14	6.63	531.52	8.49	5.98	532.17
T6	538.32	535.96	2.36	8.92	6.56	529.40	8.86	6.50	529.46	9.07	6.71	529.25
L1 Deep	572.31	568.96	3.35	20.94	17.59	551.37	21.19	17.84	551.12	20.98	17.63	551.33
L1 Shallow	571.09	568.861	2.229	19.75	17.52	551.34	19.91	17.68	551.18	19.72	17.49	551.37
LB2 Deep	570.639	568.057	2.582	18.53	15.95	552.11	18.93	16.35	551.71	18.77	16.19	551.87
LB2 Shallow	570.452	568.136	2.316	18.33	16.01	552.12	18.68	16.36	551.77	18.49	16.17	551.96
L3 Deep	565.88	563.02	2.86	14.04	11.18	551.84	14.55	11.69	551.33	14.33	11.47	551.55
L3 Shallow	565.762	562.971	2.791	13.84	11.05	551.92	14.43	11.64	551.33	14.24	11.45	551.52
L4	568.58	566.25	2.33	9.13	6.80	559.45	9.67	7.34	558.91	9.43	7.10	559.15
L5 Deep	568.01	565.19	2.82	16.96	14.14	551.05	17.96	15.14	550.05	17.72	14.90	550.29
L5 Shallow	567.747	565.25	2.497	15.29	12.79	552.46	16.46	13.96	551.29	16.36	13.86	551.39
D1 Deep	566.2	564.02	2.18	15.79	13.61	550.41	18.51	16.33	547.69	17.66	15.48	548.54
D1 Shallow	566.333	563.871	2.462	15.87	13.41	550.46	18.78	16.32	547.55	17.69	15.23	548.64
D2 Deep	560.93	558	2.93	10.08	7.15	550.85	11.49	8.56	549.44	11.36	8.43	549.57
D2 Shallow	560.503	557.849	2.654	9.74	7.09	550.76	11.14	8.49	549.36	10.68	8.03	549.82
D3 Deep	557.9	555.03	2.87	8.09	5.22	549.81	8.62	5.75	549.28	11.01	8.14	546.89
D3 Shallow	557.743	554.673	3.07	7.69	4.62	550.05	8.16	5.09	549.58	10.66	7.59	547.08
D4	565.61	561.8	3.81	16.08	12.27	549.53	18.62	14.81	546.99	17.36	13.55	548.25
DB04 Deep	556.298	553.706	2.592	6.40	3.81	549.90	6.66	4.07	549.64	7.55	4.96	548.75
DB04 Shallow	556.433	553.548	2.885	6.89	4.01	549.54	7.49	4.61	548.94	7.42	4.54	549.01
DB05 Deep	555.82	553.385	2.435	6.46	4.02	549.36	7.99	5.55	547.83	7.81	5.37	548.01
DB05 Shallow	555.912	553.563	2.349	6.42	4.07	549.49	7.85	5.50	548.06	7.84	5.49	548.07
DB06	553.694	552.765	0.929	NI	NI	NI	NI	NI	NI	NI	NI	NI
DB07	555.798	552.754	3.044	NI	NI	NI	NI	NI	NI	NI	NI	NI
DB08	554.332	551.8	2.532	NI	NI	NI	NI	NI	NI	NI	NI	NI
Sugar Creek	510.44	NA	NA	10.31		520.75	11.06	NA	521.50	10.31	NA	520.75
Lake Springfield	NA	NA	NA	NA	NA	560.02	NA	NA	560.40	NA	NA	560.38
Clarification Pond	553.29	NA	NA	6		547.29	6.9	NA	546.39	6.4	NA	546.89

Notes:
NI - Not Installed
NA - Not Applicable

Table 1: Groundwater Elevations
CWLP, Springfield, Illinois

Well/Location	Elev. Of Meas. Point	Grnd. Surface	Stick Up	7/21/2025			8/21/2025		
				DTW from Meas. Pt	DTW from Grnd	GW Elev	DTW from Meas. Pt	DTW from Grnd	GW Elev
R101	546.8	543.57	3.23	6.52	3.29	540.28	8.67	5.44	538.13
P103	537.43	534.47	2.96	10.67	7.71	526.76	12.54	9.58	524.89
P103S	537.637	535.852	1.785	10.41	8.63	527.23	12.86	11.08	524.78
P104	531.79	529.15	2.64	8.12	5.48	523.67	9.90	7.26	521.89
P104S	532.669	529.742	2.927	9.16	6.23	523.51	10.26	7.33	522.41
P106	524.79	523.24	1.55	1.55	0.00	523.24	3.22	1.67	521.57
G110	555.92	553.79	2.13	24.51	22.38	531.41	25.79	23.66	530.13
R111	552.4	552.51	-0.11	24.96	25.07	527.44	26.91	27.02	525.49
G112	553.3	550.41	2.89	27.43	24.54	525.87	29.69	26.80	523.61
G113	536.77	533.64	3.13	5.03	1.90	531.74	7.23	4.10	529.54
G120	551.74	551.78	-0.04	16.16	16.20	535.58	18.03	18.07	533.71
G121	554.33	551.81	2.52	28.48	25.96	525.85	29.22	26.70	525.11
G122	553.28	550.97	2.31	29.93	27.62	523.35	31.61	29.30	521.67
G123	553.212	550.523	2.689	29.41	26.72	523.80	31.75	29.06	521.46
P03D	533.203	530.018	3.185	7.07	3.89	526.13	9.14	5.96	524.06
P03S	532.75	529.985	2.765	9.83	7.07	522.92	10.17	7.41	522.58
P04D	539.67	534.64	5.03	13.11	8.08	526.56	14.48	9.45	525.19
P05D	536.92	533.64	3.28	6.89	3.61	530.03	7.82	4.54	529.10
P06S North	526.83	523.96	2.87	2.87	0.00	523.96	5.43	2.56	521.40
P06D Middle	529.8	523.96	5.84	5.84	0.00	523.96	4.91	-0.93	524.89
P06R South	531.2	524.7	6.5	6.50	0.00	524.70	6.50	0.00	524.70
P07S West	527.39	525.08	2.31	4.80	2.49	522.59	8.41	6.10	518.98
P07D North	528.25	525.25	3	4.34	1.34	523.91	6.92	3.92	521.33
P07M East	527.04	525.02	2.02	4.04	2.02	523.00	7.14	5.12	519.90
P09S West	554.47	550.78	3.69	29.42	25.73	525.05	30.38	26.69	524.09
P09D East	554.84	551.47	3.37	29.11	25.74	525.73	31.27	27.90	523.57
AW-1	554.42	551.24	3.18	13.44	10.26	540.98	15.94	12.76	538.48
AW-2	528.25	525.02	3.23	4.41	1.18	523.84	6.87	3.64	521.38
RW3	538.42	535.65	2.77	10.49	7.72	527.93	11.05	8.28	527.37
RW3S	538.391	535.867	2.524	8.20	5.68	530.19	10.95	8.43	527.44
TW3 West	538.293	535.833	2.46	11.01	8.55	527.28	13.22	10.76	525.07
AP-1	535.37	533.1	2.27	10.13	7.86	525.24	11.53	9.26	523.84
AP-2	536.1	533.6	2.5	7.28	4.78	528.82	8.87	6.37	527.23
AP-3	535.25	532.7	2.55	9.03	6.48	526.22	9.74	7.19	525.51
AP-4	555.6	552.46	3.14	10.38	7.24	545.22	11.21	8.07	544.39
AP-5	583.9	581.6	2.3	14.94	12.64	568.96	16.90	14.60	567.00
AP6	536.796	534.155	2.641	8.93	6.29	527.87	9.58	6.94	527.22
AP6S	536.854	533.959	2.895	8.08	5.18	528.77	10.24	7.34	526.61
AP7	537.89	534.99	2.9	11.38	8.48	526.51	11.83	8.93	526.06
AP8	540.3	537.2	3.1	5.76	2.66	534.54	6.73	3.63	533.57
AP8S	538.585	535.974	2.611	8.13	5.52	530.46	13.59	10.98	525.00
AP9	537.2	534.3	2.9	12.46	9.56	524.74	14.92	12.02	522.28
AP10	537.5	534.4	3.1	4.08	0.98	533.42	5.54	2.44	531.96
AP11	538.1	535.3	2.8	10.13	7.33	527.97	15.83	13.03	522.27
AP12	540.7	537.8	2.9	17.19	14.29	523.51	18.22	15.32	522.48
AP13	542	538.6	3.4	17.46	14.06	524.54	19.14	15.74	522.86
AP14	539.6	536.8	2.8	2.37	-0.43	537.23	2.39	-0.41	537.21
AP15D	538.609	536.295	2.314	1.87	-0.44	536.74	2.54	0.23	536.07
AP15S	538.532	536.417	2.115	0.86	-1.26	537.67	1.57	-0.55	536.96
AP16	539.275	536.936	2.339	6.61	4.27	532.67	8.82	6.48	530.46
GP1	537.72	535.62	2.1	12.02	9.92	525.70	13.01	10.91	524.71
GP3	550.41	547.56	2.85	19.93	17.08	530.48	20.76	17.91	529.65
GP7	535.74	533.25	2.49	8.74	6.25	527.00	9.38	6.89	526.36
T1	535.65	533.65	2	13.48	11.48	522.17	14.93	12.93	520.72
T2	549.62	547.22	2.4	24.82	22.42	524.80	26.31	23.91	523.31
T4	548.94	546.56	2.38	16.96	14.58	531.98	18.54	16.16	530.40
T4S	549.044	546.754	2.29	16.91	14.62	532.13	16.87	14.58	532.17
T5	540.66	538.15	2.51	7.57	5.06	533.09	11.16	8.65	529.50
T6	538.32	535.96	2.36	9.34	6.98	528.98	9.77	7.41	528.55
L1 Deep	572.31	568.96	3.35	21.02	17.67	551.29	22.13	18.78	550.18
L1 Shallow	571.09	568.861	2.229	20.61	18.38	550.48	20.85	18.62	550.24
LB2 Deep	570.639	568.057	2.582	18.63	16.05	552.01	19.95	17.37	550.69
LB2 Shallow	570.452	568.136	2.316	18.40	16.08	552.05	19.71	17.39	550.74
L3 Deep	565.88	563.02	2.86	14.37	11.51	551.51	15.49	12.63	550.39
L3 Shallow	565.762	562.971	2.791	14.33	11.54	551.43	15.51	12.72	550.25
L4	568.58	566.25	2.33	9.46	7.13	559.12	11.25	8.92	557.33
L5 Deep	568.01	565.19	2.82	17.86	15.04	550.15	18.84	16.02	549.17
L5 Shallow	567.747	565.25	2.497	16.61	14.11	551.14	17.41	14.91	550.34
D1 Deep	566.2	564.02	2.18	18.08	15.90	548.12	20.11	17.93	546.09
D1 Shallow	566.333	563.871	2.462	18.34	15.88	547.99	20.06	17.60	546.27
D2 Deep	560.93	558	2.93	10.47	7.54	550.46	15.7	12.77	545.23
D2 Shallow	560.503	557.849	2.654	10.43	7.78	550.07	15.02	12.37	545.48
D3 Deep	557.9	555.03	2.87	7.86	4.99	550.04	13.67	10.80	544.23
D3 Shallow	557.743	554.673	3.07	7.34	4.27	550.40	12.97	9.90	544.77
D4	565.61	561.8	3.81	17.01	13.20	548.60	19.29	15.48	546.32
DB04 Deep	556.298	553.706	2.592	7.46	4.87	548.84	9.47	6.88	546.83
DB04 Shallow	556.433	553.548	2.885	7.44	4.56	548.99	9.40	6.52	547.03
DB05 Deep	555.82	553.385	2.435	6.31	3.87	549.51	12.04	9.60	543.78
DB05 Shallow	555.912	553.563	2.349	6.42	4.07	549.49	12.01	9.66	543.90
DB06	553.694	552.765	0.929	3.96	3.03	549.73	8.93	8.00	544.76
DB07	555.798	552.754	3.044	6.39	3.35	549.41	9.88	6.84	545.92
DB08	554.332	551.8	2.532	4.30	1.77	550.03	11.25	8.72	543.08
Sugar Creek	510.44	NA	NA	10.41	NA	520.85	9.73	NA	520.17
Lake Springfield	NA	NA	NA	NA	NA	560.26	NA	NA	559.64
Clarification Pond	553.29	NA	NA	6.9	NA	546.39	7	NA	546.29

Notes:
NI - Not Installed
NA - Not Applicable

TABLE 2:
VERTICAL HYDRAULIC GRADIENTS

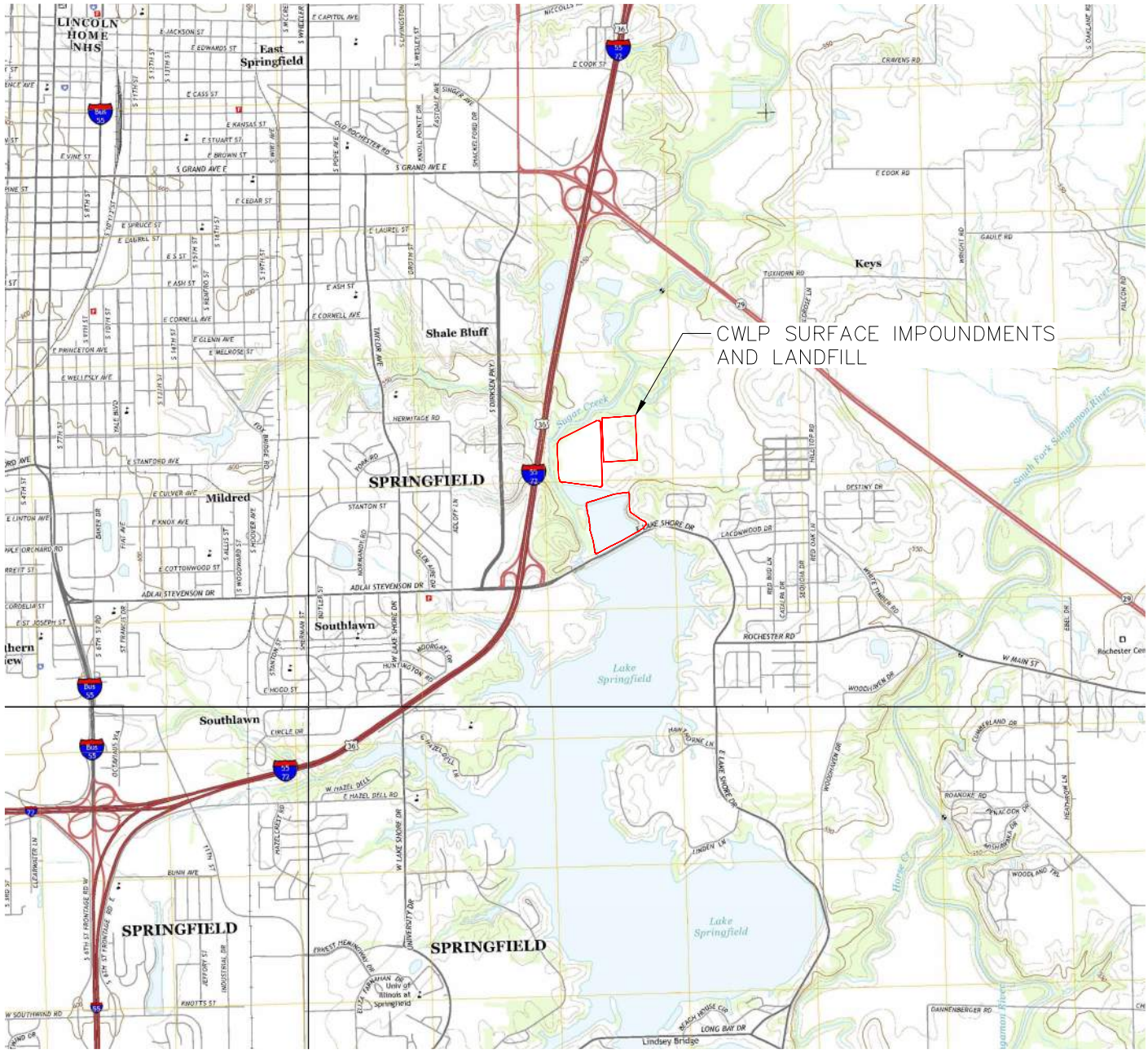
Table 2: Vertical Hydraulic Gradients
CWLP, Springfield, Illinois

Well	Easting (Site Coord)	Northing (Site Coord)	Middle of Screen (ft amsl)	GW Elev (ft amsl)	Vertical Hydraulic Gradient	Direction
AP6S	1702.3	5695.2	522.91	527.73	0.00100	Upward
AP6	1715.8	5766.6	503.755	527.80		
AP8S	1266.4	5413.4	524.61	527.53	0.304	Upward
AP8	1265.0	5420.9	503.31	534.40		
AP15S	1383.0	2925.3	517.245	537.42	-0.0859	Downward
AP15D	1383.4	2921.3	507.43	536.51		
P03S	2654.5	5671.3	520.75	522.79	0.108	Upward
P03D	2658.4	5671.1	498.75	525.19		
P06S North	2191.4	4725.7	516.65	523.62	0.0180	Upward
P06D Middle	2186.8	4717.0	495.05	524.04		
P06D Middle	2186.8	4717.0	495.05	524.04	0.0403	Upward
P06R South	2175.7	4718.1	484.05	524.67		
P07S West	2420.0	5340.0	514.35	522.14	0.0321	Upward
P07M East	2432.8	5337.0	507.85	522.62		
P07M East	2432.8	5337.0	507.85	522.62	0.0539	Upward
P07D North	2430.0	5345.0	497.45	523.34		
P09S West	2415.6	4447.3	517.85	524.77	0.0276	Upward
P09D East	2422.4	4446.3	496.95	525.38		
P103S	2654.4	5670.1	512.40	525.92	-0.0147	Downward
P103	2658.6	5670.2	506.78	525.82		
P104S	2309.8	5674.6	508.07	523.10	-0.0139	Downward
P104	2305.9	5685.0	502.05	522.93		
RW3S	1736.5	5614.9	523.59	528.93	-0.0427	Downward
RW3	1737.4	5613.3	500.87	527.96		

FIGURES

FIGURE 1:
SITE LOCATION

J:\S\Springfield CWLP\CWLP Ash Pond\DWG\2025\Site Map.dwg Tab: Layout1





NOTE:
BACKGROUND IMAGE COURTESY OF UNITED STATES GEOLOGICAL SURVEY.

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SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: KWF | DESIGNED BY: KWF | DRAWN BY: BCK

SITE LOCATION

PLANS PREPARED FOR
CITY, WATER, LIGHT & POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025
PROJECT ID: 240338/0014
SHEET NUMBER:

FIG. 1

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FIGURE 2:
SITE FEATURES



LEGEND

POND/LANDFILL BOUNDARY

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.

N

0 250 500 1000

SCALE: IN FEET

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APPROVED BY: BJH | DESIGNED BY: | DRAWN BY: BCK

SITE FEATURES

PREPARED FOR
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FIG. 2

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Tab: FIGURE 2 NEW Last Saved: September 19, 2025, by Ben Korpus Plotted: Monday, September 22, 2025 12:08:48 PM
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FIGURE 3:
HISTORIC SITE PHOTO - 1936



NOTE

SITE PHOTO DATED JULY 3, 1936

NO.	DATE	REVISION DESCRIPTION	BY

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SITE PHOTO

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DATE:
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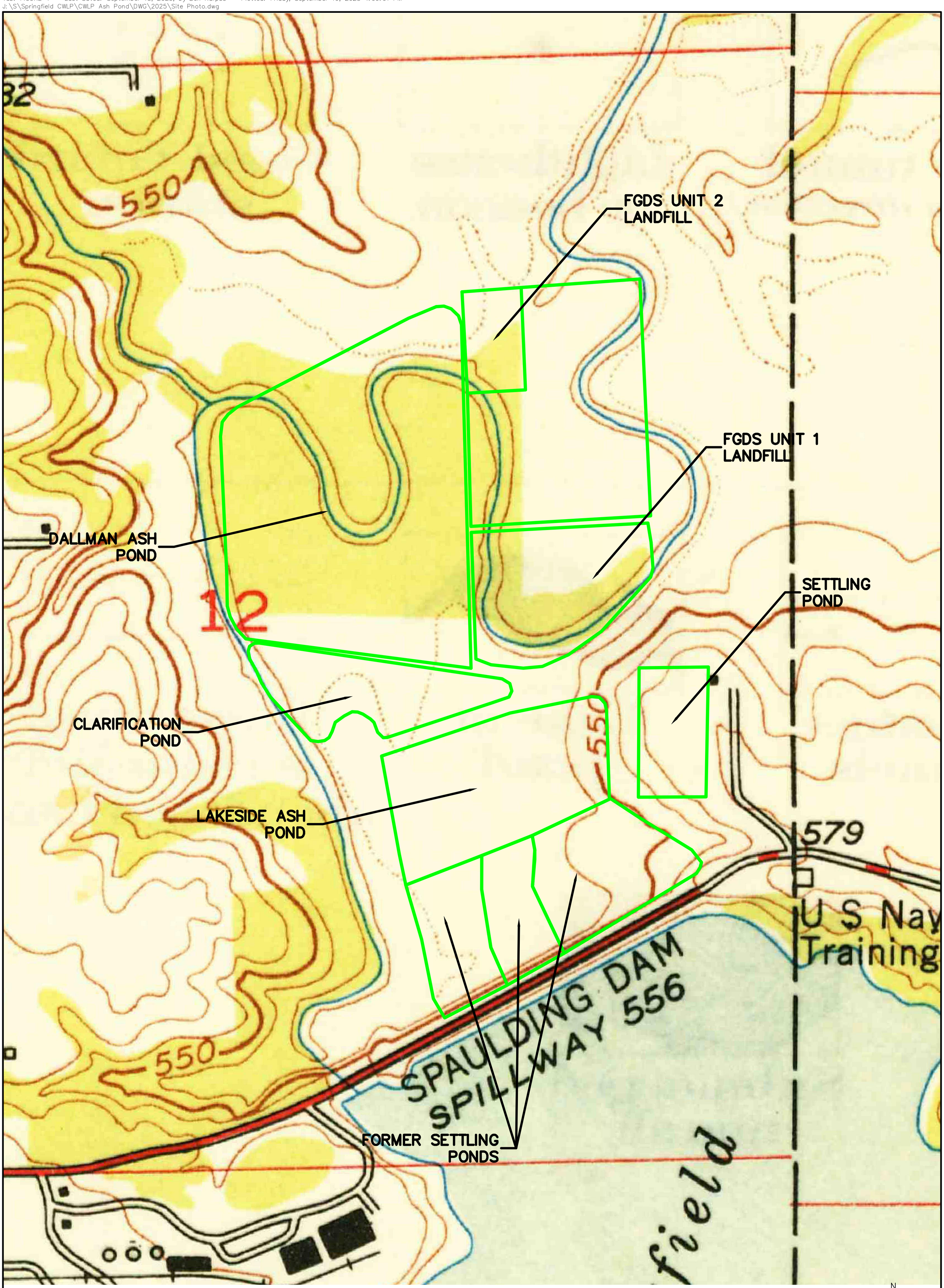
FIG. 3

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Tab: FIGURE 3 Last Saved: September 15, 2025, by Ben Karpus Plotted: Monday, September 15, 2025 11:29:59 AM
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FIGURE 4:
HISTORIC SITE TOPOGRAPHIC MAP - 1950

Tab: FIGURE 4 Last Saved: September 15, 2025, by Ben Karpus Plotted: Friday, September 19, 2025 4:09:01 PM
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NOTE

SPRINGFIELD EAST, IL HISTORICAL MAP GEOPDF 7.5X7.5 GRID 2400–SCALE 1950

0 200 400 800

SCALE: IN FEET

N

FIG. 4

SHEET NUMBER:

PROJECT ID: 240338/0014

DATE: SEPTEMBER 2025

HISTORIC SITE TOPOGRAPHIC MAP – 1950

PREPARED FOR

CITY, WATER, LIGHT AND POWER

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FIGURE 5:
FORMER SUGAR CREEK CHANNEL

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE

SOURCE: GRADING PLAN – DALLMAN ASH POND, BURNS & MCDONNELL (DRAWING NO. Y29, REV. 4, DATED AUGUST 13, 1976)

Notes:

1. The 36" Corrugated Metal Pipe, 16 gauge, Bituminous coated, 2 2/3" x 1/2" corrugations, with 2 end sections required.
2. Excavate for Relocated Sugar Creek from Sta. 2+00 to Sta 19+00 leaving excavation isolated from Sugar Creek waters until excavation and Rip Rap is completed between the above mentioned stations.
3. Area is susceptable to Flooding
4. Over excavate at least 4.0 feet under dike below exist channel banks and bottom. (See cross sections.) Fill with cohesive material and compact to at least 90%
5. Form a greenbelt on both sides of Relocated Sugar Creek. Areas within Greenbelt which are cleared or disturbed during construction shall be topsoiled & seeded. Plant trees on 25ft. On ground above el. 540.0 10 trees shall be Hard Maple the rest shall be Sycamore. On ground that is below El. 540.0 10 trees shall be Pin Oak, the rest shall be Sycamore. Do not plant trees on ash pond dike
6. Clearing Limits as shown outside of Purchasers property lines. Within Purchasers property clear as necessary for const. Keep clearing limits as close to work as possible
7. Waste area is north of Green Belt. Grade waste area to drain and to present a neat appearance. Seed and mulch Waste Area.
8. Borrow material for the Ash Pond Dikes shall come from center of pond and Relocated Sugar Creek. If in the opinion of the engineer material taken from the pond area is too wet to dry in a reasonable length of time the contractor will be permitted to borrow from the area directly north of Relocated Sugar Creek as long as the borrow area is topsoiled, seeded, and mulched, and graded to drain as directed by engineer.

NO.	DATE	REVISION DESCRIPTION	BY

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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

FORMER SUGAR CREEK CHANNEL

PREPARED FOR

CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

PROJECT ID: 240338/0014

SHEET NUMBER:

FIG. 5

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Tab: 4 Last Saved: September 22, 2025, by Ben Korpus Plotted: Monday, September 22, 2025 3:08:22 PM
J:\S\Springfield CWLP\CWLP Ash Pond\DWG\PMAPS\2025\BASE with all borings.dwg

FIGURE 6:
BORING AND MONITORING WELL/PIEZOMETER LOCATIONS

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE

NOTES

1. FLIGHT DATE APRIL 2023.



FIG. 6

BORING AND MONITORING WELL/PIEZOMETER LOCATIONS

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

PROJECT ID: 240338/0014

SHEET NUMBER:

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PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

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FIGURE 7:
BEDROCK SURFACE

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 10 FEET.



FIG. 7

BEDROCK SURFACE

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

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FIGURE 8:
BASAL SAND SURFACE

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE
- BASAL SAND ABSENT

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 10 FEET.

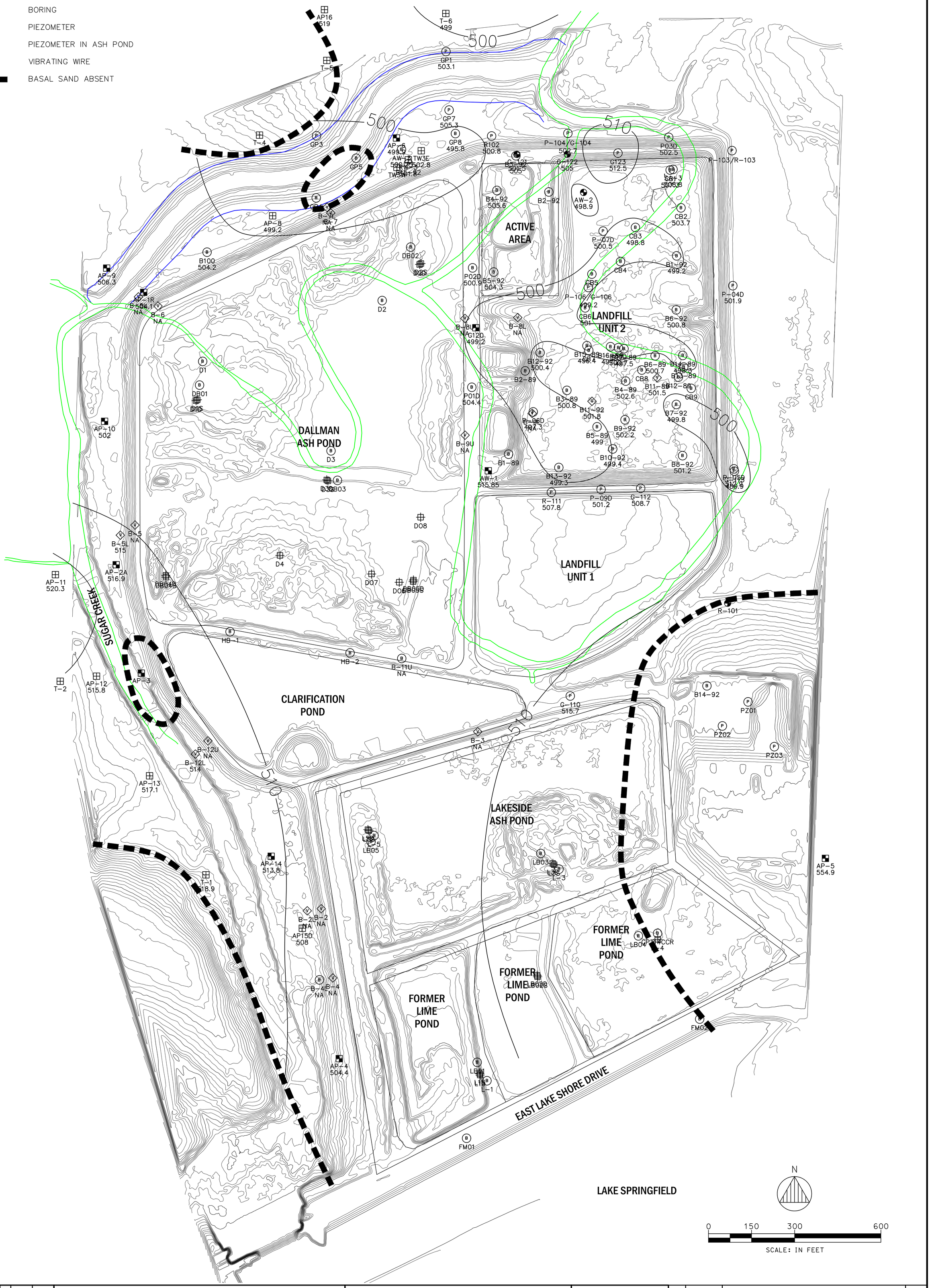


FIG. 8

BASAL SAND SURFACE

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

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FIGURE 9:
BASAL SAND ISOPACH

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE
- BASAL SAND ABSENT

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.

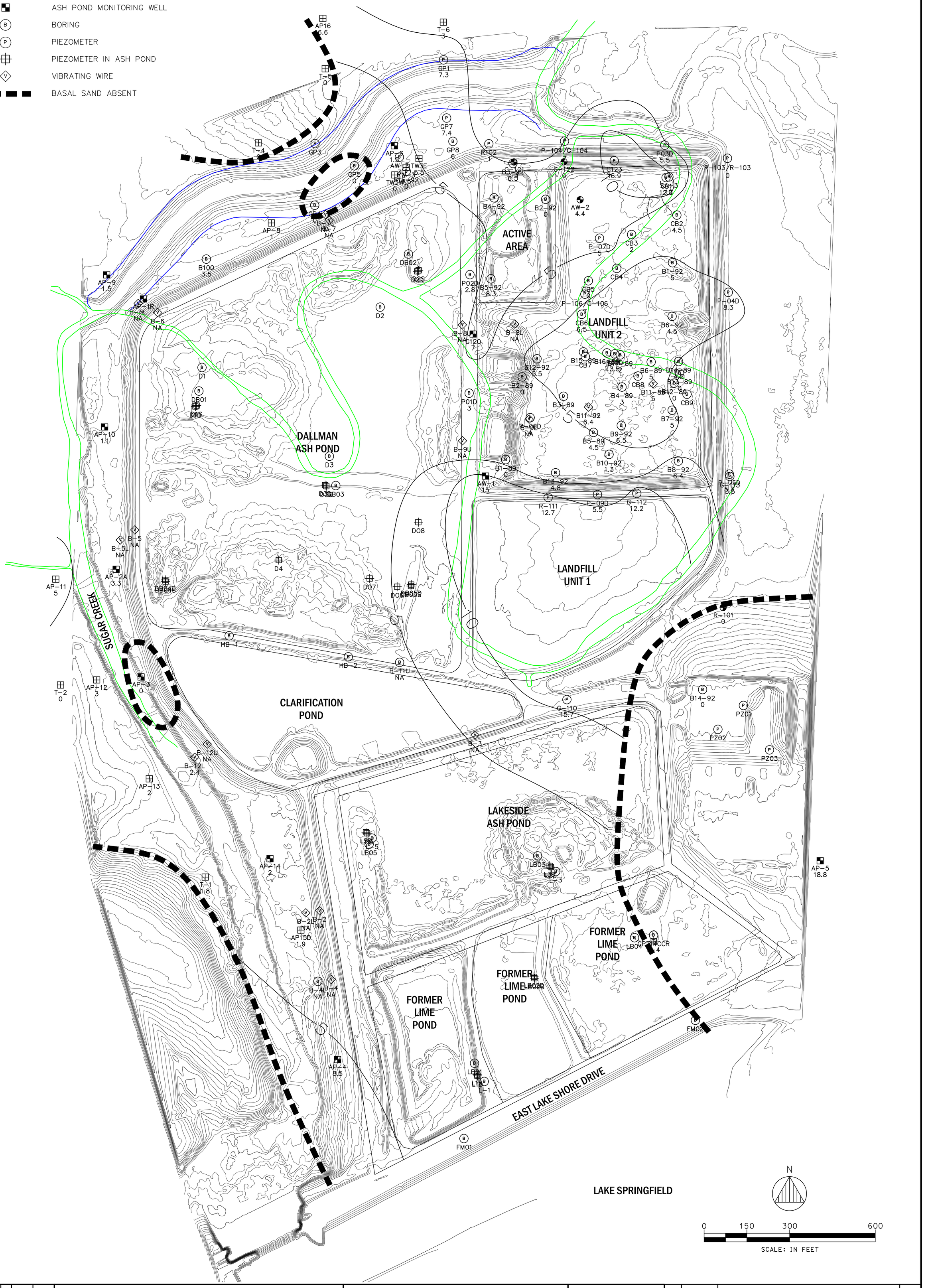


FIG. 9

BASAL SAND ISOPACH

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

PROJECT ID: 240338/0014

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FIGURE 10:
LOWER COHESIVE DEPOSIT SURFACE

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE
- LOWER COHESIVE DEPOSIT ABSENT

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.

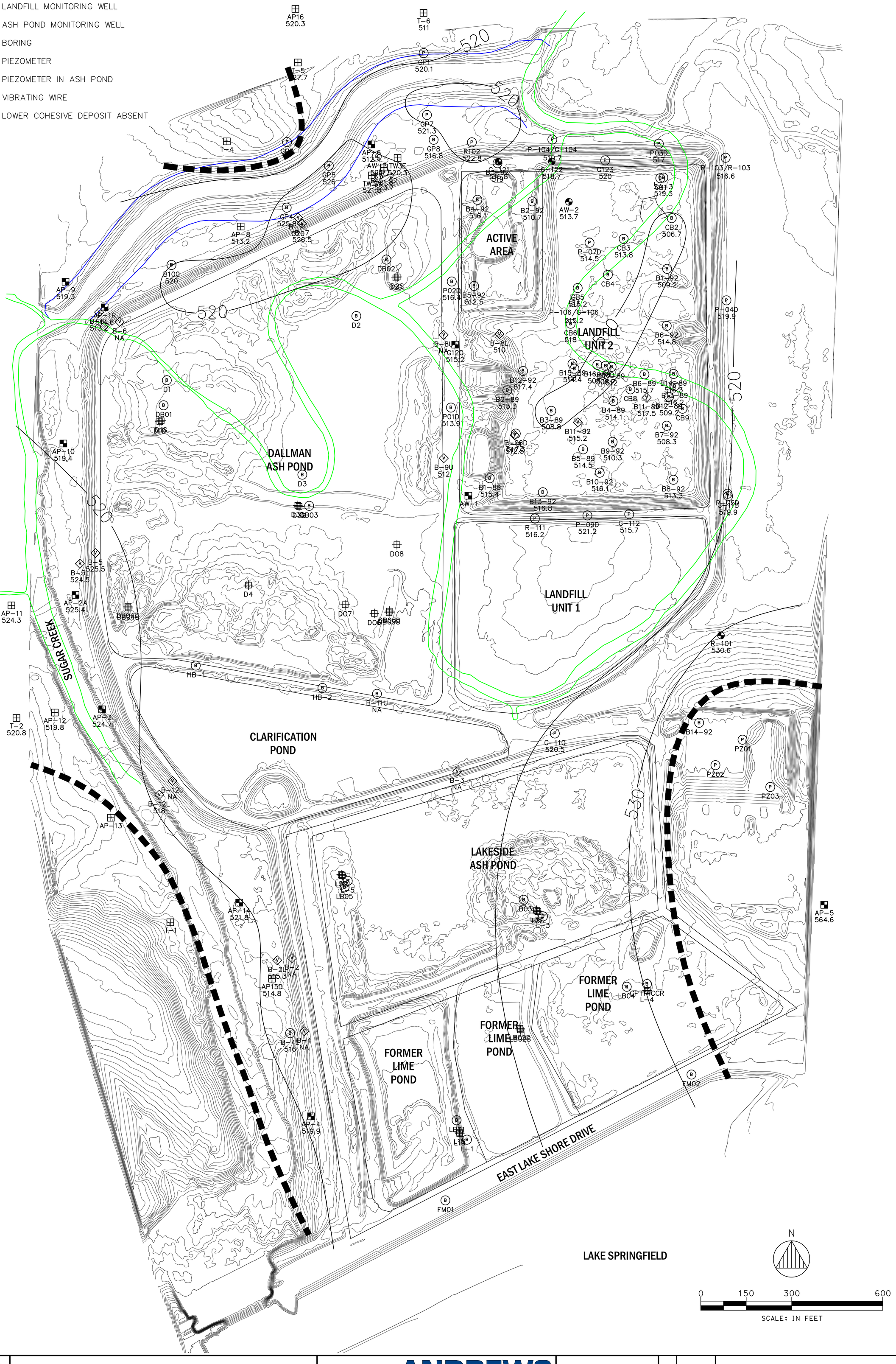


FIG. 10

LOWER COHESIVE DEPOSIT SURFACE

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

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FIGURE 11:
LOWER COHESIVE DEPOSIT ISOPACH

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE
- LOWER COHESIVE DEPOSIT ABSENT

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.



FIG. 11

LOWER COHESIVE DEPOSIT ISOPACH

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

PROJECT ID: 240338/0014

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FIGURE 12:
SHALLOW SAND SURFACE

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE
- SHALLOW SAND ABSENT

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 10 FEET.



N

0 150 300 600

SCALE: IN FEET

FIG. 12

SHALLOW SAND SURFACE

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

PROJECT ID: 240338/0014

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FIGURE 13:
SHALLOW SAND ISOPACH

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE
- SHALLOW SAND ABSENT

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.



FIG. 13

SHALLOW SAND ISOPACH

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

PROJECT ID: 240338/0014

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FIGURE 14:
UPPER COHESIVE DEPOSIT SURFACE

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE
- UPPER COHESIVE DEPOSIT ABSENT

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 10 FEET.

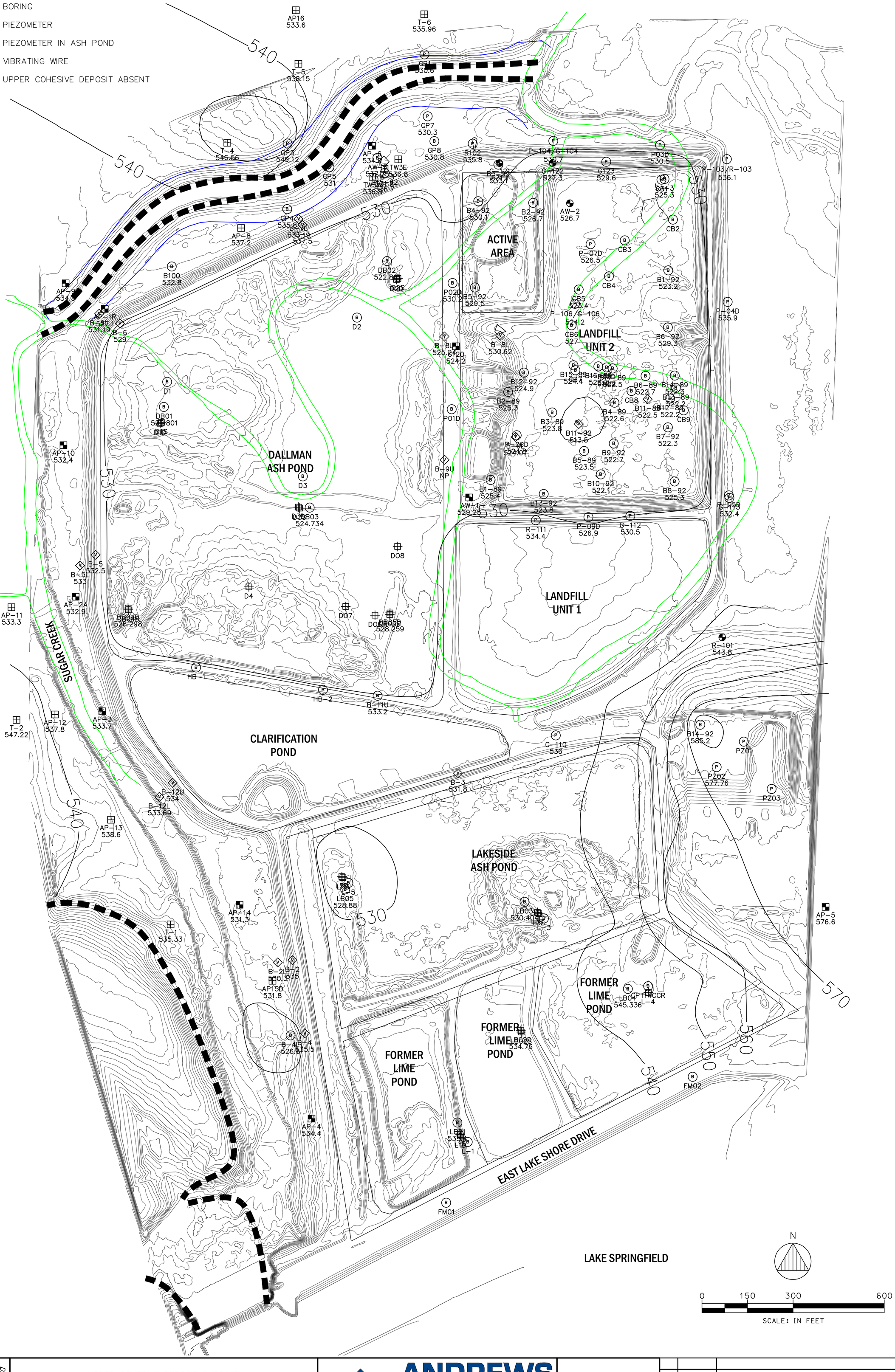


FIG. 14

UPPER COHESIVE DEPOSIT SURFACE

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

SHEET NUMBER:

PROJECT ID: 240338/0014

DATE: SEPTEMBER 2025

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FIGURE 15:
UPPER COHESIVE DEPOSIT ISOPACH

LEGEND

- TEMPORARY ASSESSMENT WELL
- LANDFILL MONITORING WELL
- ASH POND MONITORING WELL
- BORING
- PIEZOMETER
- PIEZOMETER IN ASH POND
- VIBRATING WIRE
- UPPER COHESIVE DEPOSIT ABSENT

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.

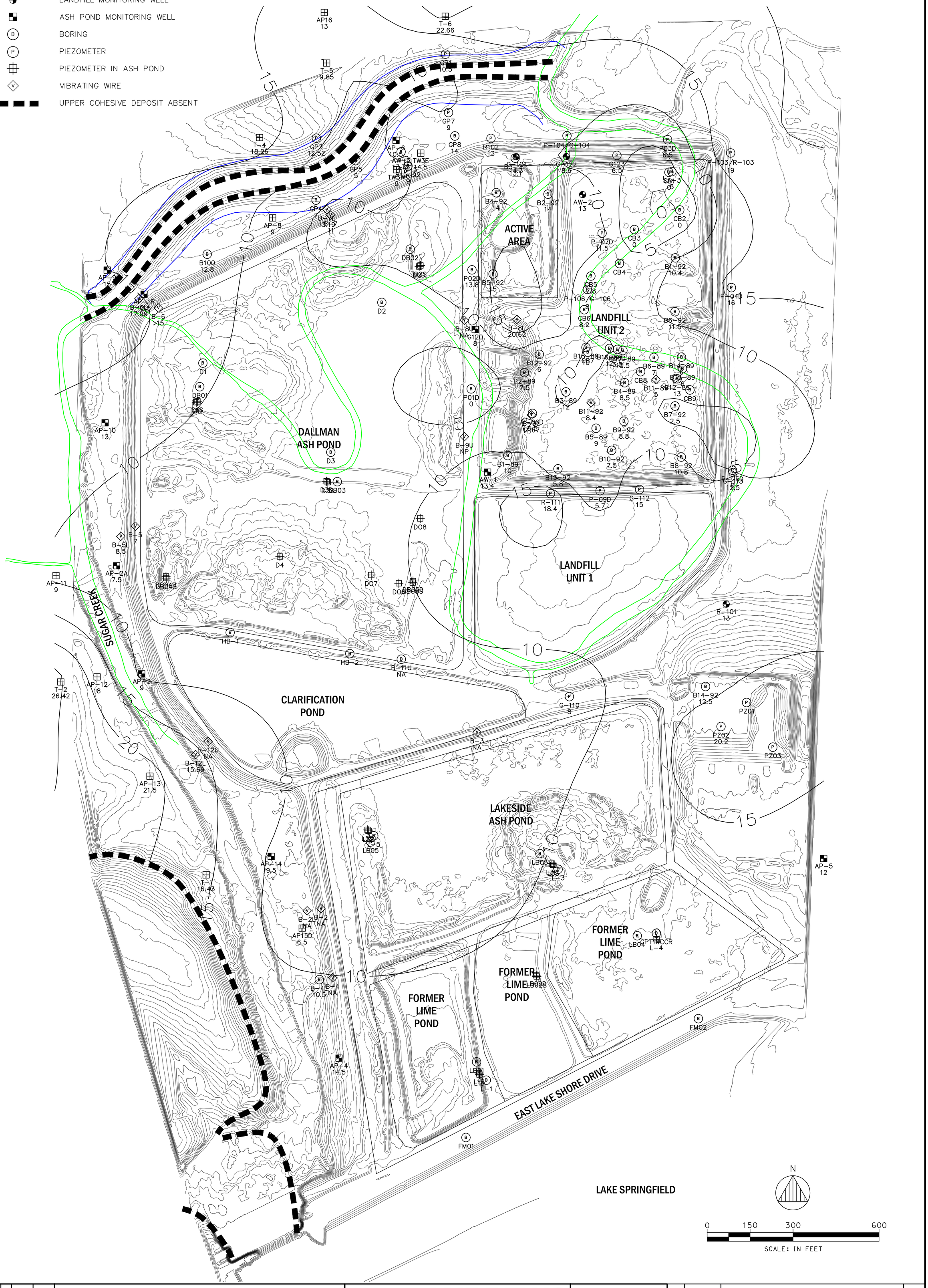


FIG. 15

UPPER COHESIVE DEPOSIT ISOPACH

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

PROJECT ID: 240338/0014

SHEET NUMBER:

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APPENDICES

APPENDIX A:
BORING LOGS

APPENDIX A1:
FGDS LANDFILL UNIT 2 INVESTIGATION

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-1

Project Name: FGD Sludge Facility - South Cell Date of Boring: May 30, 1989

Site: Springfield, Illinois Project No.: 020-95020

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
		1-AU	--	--	--	--	
Silty clay, trace sand, dark grey, stiff		2-SS	5	--	1.3	--	
	5	3-SS	4	--	1.0	--	
		4-SS	6	--	1.5	--	
	10	5-SS	5	--	0.8	--	
Silty clay, trace sand, light grey, firm to stiff		6-SS	4	--	0.8	--	
	15	7-SS	4	--	1.5	--	
		8-SS	4	--	1.0	--	
	20	9-SS	4	--	1.3	--	
End of boring							Dry upon completion

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-2

Project Name: FGD Sludge Facility - South Cell Date of Boring: May 30, 1989

Site: Springfield, Illinois Project No.: 020-95020

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
		1-AU	--	--	--	--	
Silty clay, trace sand, grey, mottled brown, firm		2-SS	8	--	0.8	--	
	5	3-SS	9	--	1.8	--	
Silty clay, trace sand, grey, stiff		4-SS	7	--	1.8	--	
	10	5-SS	2	--	--	--	
		6-SS	4	--	1.5	--	
Clayey silt, trace sand, grey, stiff	15	7-SS	4	--	1.3	--	
		8-SS	6	--	1.3	--	▽ While drilling
	20	9-SS	7	--	1.5	--	
End of boring							

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-3

Project Name: FGD Sludge Facility - South Cell Date of Boring: May 30, 1989

Site: Springfield, Illinois Project No.: 020-95020

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
		1-AU	--	--	--	--	
Silty clay, trace sand, grey, mottled brown, stiff		2-SS	7	--	1.3	--	
	5	3-SS	4	--	1.5	--	
		4-SS	6	--	1.5	--	
	10	5-SS	4	--	1.3	--	
		6-SS	5	--	0.8	--	
	15	7-SS	4	--	1.5	--	
Clayey silt, trace sand, organics, grey, stiff		8-SS	5	--	1.0	--	While drilling ▽
	20	9-SS	4	--	1.3		
		10-SS	--	--	1.3	--	
	25	11-SS	9	--	--	--	
Sand, fine, some silt, grey, medium dense							*Note 1
Shale, grey, very stiff (weathered)	30	12-SS	50/6"	--	3.0	--	
End of boring							

*Note 1: Blow-in sand @27.5'

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-4

Project Name: FGD Sludge Facility - South Cell Date of Boring: May 30, 1989

Site: Springfield, Illinois Project No.: 020-95020

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
		1-AU	--	--	--	--	
Silty clay, trace sand, organics, mottled brown, stiff		2-SS	4	--	1.7	--	
	5	3-SS	4	--	1.0	--	
Silty clay, trace sand, dark grey, stiff		4-SS	7	--	2.0	--	
	10	5-SS	11	--	2.5	--	
Silty clay, trace sand, mottled brown, very stiff							
		6-SS	7	--	1.0	--	While drilling ▽
Clayey silt, trace sand, grey, firm to stiff	15	7-SS	5	--	0.8	--	
		8-SS	9	--	1.5	--	
*Note 1	20	9-SS	7	--	--	--	
End of boring							

*Note 1: Silty sand, some gravel, slightly compact

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-6

Project Name: FGD Sludge Facility - South Cell Date of Boring: May 30, 1989

Site: Springfield, Illinois Project No.: 020-95020

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay, trace sand, brown, stiff		1-AU	--	--	--	--	
		2-SS	5	--	--	--	*Poor recovery on 2-SS
	5	3-SS	7	--	1.3	--	
		4-SS	8	--	1.5	--	
Silty clay, trace sand, mottled grey, stiff	10	5-SS	6	--	1.5	--	
		6-SS	6	--	1.0	--	
Clayey silt, trace sand, grey, stiff	15	7-SS	7	--	1.3	--	
		8-SS	7	--	1.8	--	▽ While drilling
	20	9-SS	9	--	1.8	--	

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-1

Project Name: Subsurface Exploration Date of Boring: September 28, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 525.36

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE						16	▽ 0 HR.
Clayey silt, trace sand, grey, mottled brown		1-SS (50%)				19	
	5					23	
		2-SS (20%)				16	
	10						
Silty clay, trace sand, gravel, some organics, dark brown, black		3-SS (10%)				19	
	15						
		4-SS (50%)				16	
	20						
		5-SS (40%0)				13	
Shale, grey							
End of Boring	25						

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-2

Project Name: Subsurface Exploration Date of Boring: September 28, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 525.28

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
*Note 1						14	
Silty clay, grey, mottled brown							
		1-SS (100%)				21	
Silty sand, fine to medium, brown	5					23	▽ 0 HR.
*Note 2							
		2-SS (50%)				25	
Silty sand, grey, brown	10	3-ST (30%)					
		4-SS (90%)					
Clayey silt, trace sand, grey	15	5-ST (100%)					
		6-SS (90%)				24	
						21	
	20	7-ST (80%)					
Sandy silt, grey							
		8-SS (90%)					
	25					18	
Shale, grey		9-SS					
	30	(80%)					
End of Boring							

*Note 1: Silty clay, grey, mottled brown, some organics

*Note 2: 6.5'-6.8': Silt, grey, mottled brown
6.8'-7.0': Silty sand, brown, grey
7.0'-7.5': Clay, trace sand, brown, grey

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-3

Project Name: Subsurface Exploration Date of Boring: September 28, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 523.83

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay, trace sand, grey, mottled brown	5	1-SS (95%)				14 23 23	▽ 0 HR.
Silty dand, fine to medium, grey, brown	10	2-SS (90%)				20	
Clayey silt, trace sand, gravel						25	
Sand, trace gravel, fine to coarse, grey	15	3-SS (10%)				18	
Sandy silt, grey	20	4-SS (90%)				19 20	
Sand and gravel, fine to coarse, grey	25	5-SS (95%)				19	
	30	6-SS (10%)					
End of Boring							

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-4

Project Name: Subsurface Exploration Date of Boring: September 29, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 522.61

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE						14	▽ 0 HR.
Silty clay with organics, black, dark brown	5	1-SS (5%)				23	
Silty clay, trace sand, grey, mottled brown		2-SS (90%)				22	
Silty clay to clayey silt, trace sand, grey	10						
	15	3-SS (90%)				21	
	20	4-SS (100%)				24	
Sand, fine, some silt, grey							
Silty clay, some sand, grey	25	5-SS (50%)				19	
		6-SS (30%)				12	
*Note 1							
End of Boring							

*Note 1: 27'-27.5' - Sand and gravel, grey
27.5'-28' - Shale, grey

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-5

Project Name: Subsurface Exploration Date of Boring: September 30, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 523.49

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Clayey silt, some organics, sand, brown, mottled grey	5	1-SS (80%)				19	
		2-ST (100%)				24	
	10	3-SS (95%)					
		4-ST (0%)					
Silty clay, trace sand, grey	15	5-SS (100%)				20	
		6-ST (0%)					
	20	7-SS (100%)				20	
		8-ST (0%)					
	25	9-SS (80%)				9	
Silty sand, grey		10-SS	28/52				
Sand with gravel, medium to coarse, grey		11-SS	35/42				
Shale, grey	30	12-SS	100/2"			9	
End of Boring							

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-6 (4' S. of 500+400)

Project Name: Subsurface Exploration Date of Boring: October 3, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 522.71

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay, brown, black						17	
Silty clay, grey, mottled brown	5	1-SS (75%)				31	▽ 0 HR.
Silty clay, some organics, trace sand, grey	10	2-SS (50%)				27	
		3-SS (100%)					
	15					20	
		4-SS (75%)					
	20					24	
		5-SS (90%)					
Sand, fine to medium, grey							
Silty sand, fine to coarse, grey	25					22	
Shale, grey (Hard Drilling)							
End of Boring	30						

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-11

Project Name: Subsurface Exploration Date of Boring: September 29, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 522.49

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Clayey silt, some organics, black, dark brown						18	▽ 0 HR.
		1-SS (5%)				22	
	5						
Silty clay, trace sand, grey		2-SS (90%)					
	10					17	
		3-SS (100%)					
	15					19	
		4-SS (25%)					
	20					18	
Silty sand, grey		5-SS (15%)				22	
	25						
Sand with gravel, grey		6-SS	53/9	5-3"		21	
Shale, grey		7-SS				12	
End of Boring							
	30						

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-12 (Offset 36' west)

Project Name: Subsurface Exploration Date of Boring: October 3, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 522.22

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay, trace sand, grey, brown							▽ 0 HR
Silty clay, trace sand, grey	5	1-SS (75%)				24	
		2-SS (100%)				26	
	10						
Silty clay, some organics, trace sand, gravel, grey		3-SS (100%)				25 21	
Silty clay to clayey silt, trace sand, grey	15	4-SS (50%)				23 21	
	20	5-SS (25%)				22 22	
	25					21	
Shale, grey		6-SS (50%)				9	
End of Boring	30						

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-13

Project Name: Subsurface Exploration Date of Boring: October 3, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 522.20

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay with organics, dark grey							▽ 0 HR
	5	1-SS (50%)				27	
		2-ST (50%)				37	
Silty clay, trace sand, grey		3-SS (25%)				38	
	10	4-ST (50%)				23	
Clayey silt with sand, fine, grey		5-SS (100%)				20	
	15	6-ST (60%)				27	
		7-SS (100%)				21	
	20	8-SS (40%)				18	
	25					21	
						17	
Shale, grey? (Hard Drilling)							
End of Boring							

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-14

Project Name: Subsurface Exploration Date of Boring: October 2, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 522.25

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay, grey, mottled brown	5	1-SS (50%)				23	▽ 0 HR.
						20	
Silty clay to clayey silt, some sand, fine, grey	10	2-SS (15%)					While Drilling ▽
		3-SS (75%)				18	
	15	4-SS (75%)				21	
	20	5-SS (75%)				19	
Sand with gravel, fine to coarse, grey *Hard Drilling @28.5' (Shale?)	25	6-SS (80%)				15	
End of Boring	30						

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-15

Project Name: Subsurface Exploration Date of Boring: October 2, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 524.35

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay, trace sand, grey, mottled brown	5	1-SS (90%)				18	▽0 HR.
		2-ST (100%)					
		3-SS (90%)				20	
	10					36	
		4-SS (100%)				25	
Silty clay to clayey silt, some sand, fine, grey	15					22	
		5-SS (100%)					
	20					21	
		6-SS (95%)				20	
						20	
	25					26	
		7-SS (50%)					
Sand with gravel, medium to coarse	30					15	
End of Boring							

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-16

Project Name: Subsurface Exploration Date of Boring: October 2, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 523.15

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay, mottled brown						16	▽ 0 HR.
		1-SS (75%)					
Silty clay, trace sand, dark grey, black	5						
		2-ST (30%)					
Silty clay to clayey silt, some sand, fine, grey		3-SS (100%)					
	10	4-ST (100%)					
Sand, fine to coarse, grey		5-SS (50%)					
	15	6-ST (10%)				24	
Silty clay, trace sand, grey		7-SS (75%)				21	
	20						
		8-SS (50%)				17	
	25						
Sand with gravel, fine to coarse, grey							
Shale, grey (Hard Drilling @27.5')	30					16	
End of Boring							

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-17 (Offset 12' south of stake)

Project Name: Subsurface Exploration Date of Boring: October 2, 1989

Site: CWLP Ash Disposal Facility, Springfield, Illinois Project No.: 020-95039

Surface Elevation 522.50

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay, brown, mottled black	5	1-SS (25%)				17	▽ 0 HR.
		2-SS (5%)					
	10					19	
Silty clay with organics, trace sand, grey		3-SS (95%)				30	
	15					21	
		4-SS (90%)				20	
Silty clay to clayey silt, sand, grey	20						
		5-SS (80%)				21	
	25						
Sand with gravel, fine to coarse, grey							
Shale, grey						14	
End of Boring							

PSI A-100-9

PROJECT CWLP Flue Gas Desulfurization Sludge Landfill

CLIENT Andrews Environmental Engineers, Inc.

BORING SA-3 DATE STARTED 11-16-93 DATE COMPLETED 11-16-93 JOB L - 30,161

ELEVATIONS

GROUND SURFACE 529.3

END OF BORING 498.6

N 5560 E 2673

WATER TABLE

▼ WHILE DRILLING Drilling Fluid

▽ AT END OF BORING Drilling Fluid

▼ 24 HOURS Grouted

DISTANCE BELOW SURFACE IN FEET

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	C_u	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	10	22.1	3.0*				Very stiff dark gray and dark brown silty CLAY, little sand (CL)
	2	SS	9	23.5	2.15 2.0*				
							4.0	525.3	
	3	SS	3	30.1		92.8			Soft to medium stiff gray silty CLAY, little sand, occasional wood fragments (CL)
	4	SS	3	30.5	0.50				
	A			27.9	0.55	95.0			LL = 28 PI = 13
	5	PS	Push				9.0	520.3	
	B			24.7	—		10.0	519.3	Loose gray silty SAND (SM)
	6	SS	2	28.0	0.21				Soft gray silty CLAY, little sand (CL)
	7	SS	2	25.2					
	8	SS	2	52.7		67.5	14.0	515.3	
				54.8	0.40	71.4			Soft gray ORGANIC CLAY, some sand, organic matter, wood fragments (OL) LL = 30 PI = 13
	9	PS	Push	84.9	–	49.0	16.0	513.3	
	A			–	–				Loose gray fine SAND, peat lens at 16.5' (SP)
	10B	SS	2	46.6	0.75*		17.5	511.8	
	C			31.6	–				Medium stiff ORGANIC CLAY, wood fragments (OL)
	A			39.6	0.37		19.0	510.3	
	11	SS	2						Soft gray silty CLAY, little sand (CL)
	B			22.8			20.5	508.8	
	12	SS	3						Loose gray silty SAND, (clayey at top) (SM)
	13	SS	3	22.8					
	14	SS	2						
							27.0	502.3	
	15	SS	17						
	A								Medium dense gray fine SAND (SP)
	16	SS	30/0.2						
	B						30.5	498.8	SHALE

End of Boring at 30.7'. Sampler refusal

Cu Indicates Undrained Shear Strength - ksf
x.xx = 1/2 Unconfined compressive strength;
$\underline{x.xx}$ = Torvane Value.
$\underline{x.x^*}$ = 1/2 Calibrated Penetrometer Value

DRILL RIG NO. AEX

PATRICK ENGINEERING INC.

BORING NUMBER **B-1** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,260.5 E 2,685.6**

LOGGED BY **KRR**
GROUND ELEVATION **523.2**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
523.2	0.0		Brown silty clay, trace coarse to fine sand, stiff to very stiff, medium plasticity, wet CL	AU-1 0.0-2.0		27.3	
				SS-2 2.0-4.0 24"R	2 3 3 3	✳ 25.6	
				SS-3 4.0-6.0 24"R	2 3 3 4	✳ 28.8	
				3T-4 6.0-8.0 4"R		23.0	Low recovery.
515.2	8.0		Gray silty clay, trace to little fine sand, soft, medium plasticity, wet CL 1" fine sand lense at 9.5'	SS-5 8.0-10.0 24"R	1 1 1 1	✳ 26.7	
512.8	10.4		Gray clayey sand and silt, very loose, poorly graded, saturated SC	SS-6 10.0-12.0 24"R	WOH 1 1 1	19.5	Water level at 10.0' during drilling.
				SS-7 12.0-14.0 24"R	WOH WOH WOH WOH	20.0	SS-7: Gravel = 0% Sand = 50% Silt or Clay = 50%
509.2	14.0		Gray silty clay to clayey silt, trace fine sand, very soft to soft, low to medium plasticity, moist to wet CL/CL-ML Lense of fine sand at 15.0'	SS-8 14.0-16.0 24"R	1 1 1 1	✳ 24.8	
				SS-9 16.0-18.0 24"R	WOH WOH 1 1	✳ 25.4	SS-9: LL = 25 PL = 22 PI = 3
503.7	19.5			SS-10A B 18.0-20.0 24"R	WOH WOH 2 2	✳ 23.4	
503.2	20.0		Gray clayey fine sand, little silt, loose,			22.8	

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/1/92** ENDED **8/1/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **10.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-1** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,260.5 E 2,685.6**

LOGGED BY **KRR**
GROUND ELEVATION **523.2**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
503.2	20.0		poorly graded, saturated SC	SS-11AB 20.0-22.0 14"R	WOH WOH WOH WOH	✳	
501.7	21.5		Gray fine sand, little silt, very loose, poorly graded, saturated SP-SM/SM				
			Gray silty clay, trace to little fine sand, soft, medium plasticity, moist CL	SS-12 22.0-24.0 2"R	WOH WOH WOH WOH		Blow-in at 26.0'.
499.2	24.0		Gray coarse to fine sand, trace to little fine gravel, little silt, dense, well graded, saturated SW-SM/SM	SS-13 24.0-26.0 24"R	3 8 11 13		
				SS-14 26.0-28.0 0"R			SS-14 could not be obtained due to blow-in.
			Gray fine sand, trace silt from 28.0'-29.0'	SS-15AB 28.0-30.0 20"R	7 24 76 100+/3"		
494.2	29.0		Gray silty clay to clay, hard, medium to high plasticity, moist to dry CL/CH			✳	
490.2	33.0		Gray shale, massive, excellent	PQ-16 33.0-38.0 60"R			Hard clay; drilled to 33.0'. Auger refusal at 33.0'; switched to coring. RQD = 100%
485.2	38.0		End of Boring at 38.0'.				Borehole was tremie grouted immediately after completion of drilling.

Unconfined Compressive Strength (TSF) ✳: 22.8, 24.9, 23.7, 15.5, 14.4, 14.0

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/1/92** ENDED **8/1/92**

REMARKS
WOH = Weight of Hammer

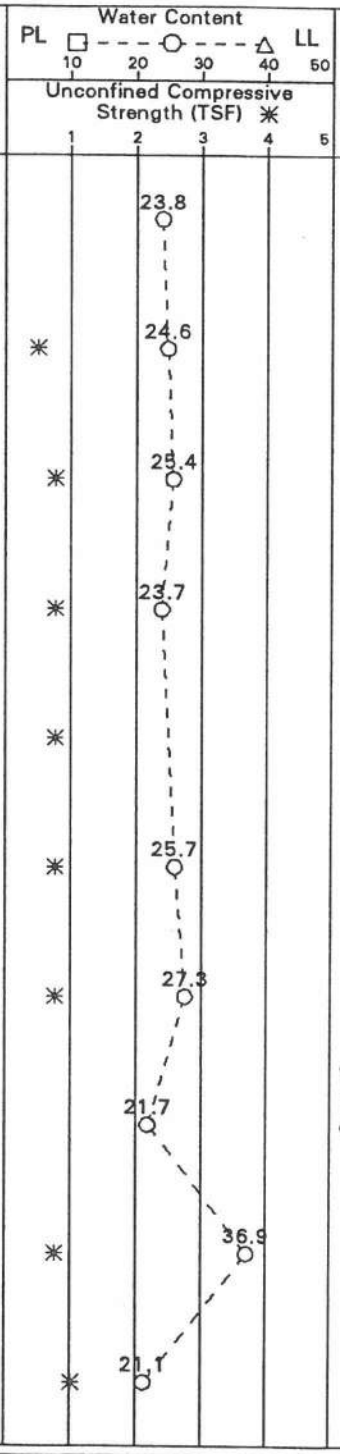
WATER LEVEL (ft.)
▽ **10.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER B-2 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,482.9 E 2,241.0

LOGGED BY KRR
GROUND ELEVATION 526.7

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
526.7	0.0		Brown mottled silty clay, trace fine sand, soft to medium stiff, medium plasticity, wet CL	AU-1 0.0-2.0	
				SS-2 2.0-4.0 20"R	3 2 2 3
				SS-3 4.0-6.0 24"R	2 2 3 3
				SS-4 6.0-8.0 24"R	3 3 3 3
517.7	9.0		Gray silty clay, trace fine sand, medium stiff, medium plasticity, wet CL	3T-5 8.0-10.0 24"R	
				SS-6 10.0-12.0 24"R	1 1 2 3
				SS-7AB 12.0-14.0 24"R	2 2 2 3
512.7	14.0		Little fine sand and trace shells in SS-7A 6" long wood in SS-7B		
			Gray fine sand, little to some silt, loose, poorly graded, saturated SM	SS-8 14.0-16.0 24"R	1 1 2 4
510.7	16.0		Dark gray silty clay, trace fine sand, trace organics, medium stiff, medium plasticity, wet CL/OL	SS-9 16.0-18.0 24"R	2 2 2 4
508.7	18.0		Gray silty clay, trace fine sand, stiff, medium plasticity, wet CL	SS-10 18.0-20.0 24"R	3 3 5 5
506.7	20.0				



NOTES & TEST RESULTS

Water level at 14.0' during drilling.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 6 1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 7/29/92 ENDED 7/29/92

REMARKS

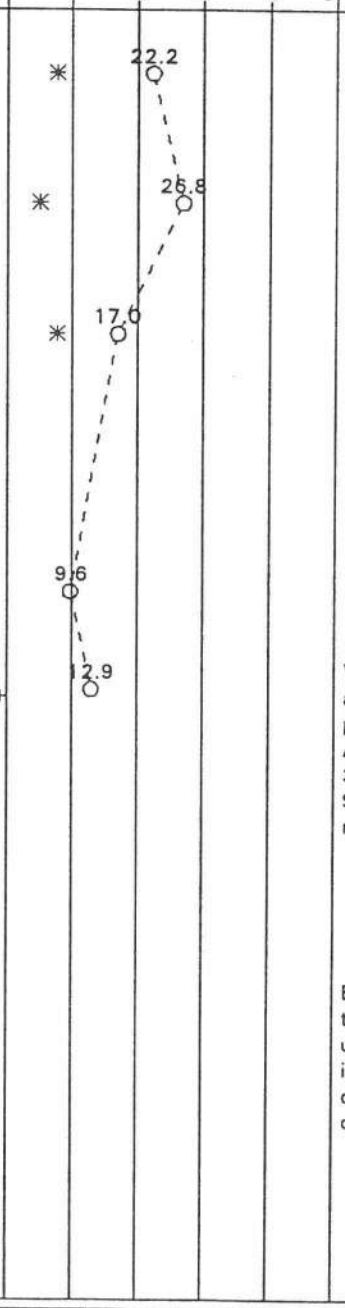
WATER LEVEL (ft.)
▽ 14.0' during drilling
▽ 14.2' within augers prior to coring
▽

PATRICK ENGINEERING INC.

BORING NUMBER B-2 SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,482.9 E 2,241.0

LOGGED BY KRR
GROUND ELEVATION 526.7

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
506.7	20.0		Gray silty clay, trace fine sand, medium stiff, low to medium plasticity, moist to wet CL	SS-11 20.0-22.0 18"R	3 4 4 5
				SS-12 22.0-24.0 24"R	2 2 2 2
				SS-13 24.0-26.0 24"R	1 2 2 2
			Clayey silt at 27.0'	3T-14 26.0-28.0 14"R	
498.7	28.0		Gray clayey silt to silt, extremely dense, dry CL-ML/ML	SS-15 28.0-30.0 24"R	2 13 23 72
496.7	30.0		Gray shale, soft	SS-16 30.0-31.0 9"R	80 120+ /3"
				PQ-17 31.0-35.0 48"R	
491.7	35.0		End of Boring at 35.0'.		



NOTES & TEST RESULTS

Water level within augers at 14.2' prior to coring. Auger refusal at 31.0'. Switched to PQ rock coring.

Borehole was tremie grouted using Volclay grout immediately after completion of drilling.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 6 1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 7/29/92 ENDED 7/29/92

REMARKS

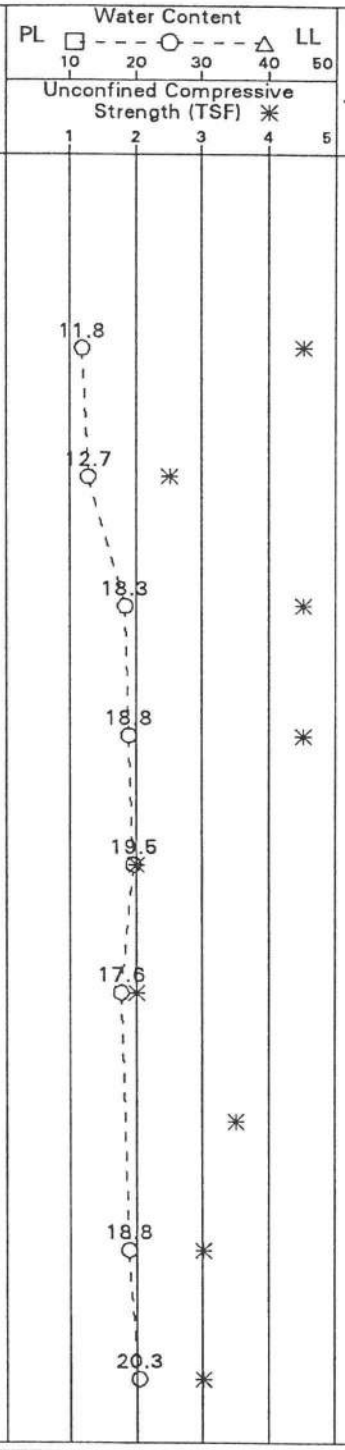
WATER LEVEL (ft.)
▽ 14.0' during drilling
▽ 14.2' within augers prior to coring
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-3** SHEET **1** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION

LOGGED BY **SAS**
GROUND ELEVATION **553.0**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
553.0	0.0		Brown silty clay, trace fine sand, very stiff to hard, low plasticity, dry to moist, fill CL	AU-1 0.0-2.0	
				SS-2 2.0-4.0 6"R	3 4 5 8
			Dark gray streaks at 3.0'		
			Brown and dark gray from 4.0'	SS-3 4.0-6.0 12"R	5 8 5 8
				SS-4 6.0-8.0 18"R	- - 5 8
			Dark gray at 8.0', trace fine gravel	SS-5 8.0-10.0 16"R	3 5 6 8
				SS-6 10.0-12.0 14"R	3 7 8 8
			Dark gray, trace organic	SS-7 12.0-14.0 12"R	3 5 6 7
539.0	14.0		Gray silty clay, trace fine sand, very stiff, medium plasticity, moist to wet, fill	3T-8 14.0-16.0 20"R	
				SS-9 16.0-18.0 18"R	- 13 13 15
			Dark gray, trace organics at 18.0'	SS-10 18.0-20.0 18"R	3 5 7 12
533.0	20.0				



NOTES & TEST RESULTS

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-75/ATV**
DRILLING STARTED **7/24/92** ENDED **7/24/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ **48'** during drilling
▼ **33.1'** end of drilling

PATRICK ENGINEERING INC.

BORING NUMBER **B-3** SHEET 2 OF 3
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION

LOGGED BY **SAS**
GROUND ELEVATION **553.0**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
533.0	20.0		Light gray, mottled silty clay, trace fine sand, very stiff, medium plasticity, wet CL	SS-11 20.0-22.0 24"R	- 3 6 7
531.0	22.0		Brown mottled silty clay, trace fine sand, stiff, medium plasticity, wet CL	SS-12 22.0-24.0 24"R	- 3 5 7
528.3	24.7		Light brown silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-13 24.0-26.0 24"R	1 2 3 5
526.5	26.5		Gray silty clay, trace fine sand, stiff to hard, medium plasticity, wet CL	SS-14 26.0-28.0 24"R	- 3 5 9
			Sand Lenses	SS-15 28.0-30.0 24"R	3 4 5 5
				3T-16 30.0-32.0 24"R	
519.9	33.1			SS-17 32.0-34.0 24"R	1 1 2 2
519.0	34.0		Gray sandy clay, soft, medium plasticity, moist SC		
			Dark gray to brown silty clay, trace fine sand, very soft to soft, medium plasticity, wet CL	SS-18 34.0-36.0 24"R	3 2 2 3
				SS-19 36.0-38.0 24"R	- 1 1 2
				3T-20 38.0-40.0 24"R	
513.0	40.0				

Water Content
PL □ - - - ○ - - - △ LL
10 20 30 40 50
Unconfined Compressive Strength (TSF) ✳
1 2 3 4 5

20.3
23.3
27.8
27.8
24.0
24.7
34.0
27.3
24.6

NOTES & TEST RESULTS

3T-20:
Dry
Dens. = 104.2pcf
k = 8.2E-08 cm/s

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-75/ATV**
DRILLING STARTED **7/24/92** ENDED **7/24/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ **48'** during drilling
▼ **33.1'** end of drilling

PATRICK ENGINEERING INC.

BORING NUMBER B-3 SHEET 3 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION

LOGGED BY SAS
GROUND ELEVATION 553.0

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
513.0	40.0		Dark gray to brown silty clay, trace fine sand, very soft to soft, medium plasticity, wet	SS-21 40.0-42.0 16"R	WOH WOH WOH WOH
			CL		
			Sand Lense at 40.8', very soft		
510.7	42.3		Gray silty clay to clayey silt, little to some sand, soft to stiff, medium plasticity, moist to wet	SS-22 42.0-44.0 24"R	1 1 2 2
			CL		
			Sand Lense at 43.3' and 43.6'	SS-23 44.0-46.0 24"R	2 4 4 3
				3T-24 46.0-48.0 24"R	
505.0	48.0		Gray clayey fine sand, some silt, very loose, saturated	SS-25 48.0-50.0 12"R	WOH WOH WOH WOH
			SC		
				SS-26 50.0-52.0 24"R	WOH WOH WOH WOH
501.0	52.0		Gray fine sand, trace coarse to medium sand, trace silt, very loose, poorly graded, saturated	SS-27 52.0-54.0 3"R	WOH WOH WOH WOH
499.0	54.0		SP/SP-SM		
498.5	54.5		Gray coarse to fine sand, little silt, trace fine gravel, loose, poorly graded, saturated	SS-26AB 54.0-56.0 9"R	2 80+/ 5"
498.2	54.8		SM		
			Gray shale		
			End of Boring at 54.8'		

Water Content: PL □ - - - ○ - - - △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)

20.8
18.2
16.9
25.7
20.4
9.5

NOTES & TEST RESULTS
Rod weight pushed sample.
Borehole was tremie grouted using Volclay grout immediately after drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-75/ATV**
DRILLING STARTED **7/24/92** ENDED **7/24/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ **48'** during drilling
▽ **33.1'** end of drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER B-4 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 5,488.2 E 2,060.4

LOGGED BY KRR
GROUND ELEVATION 530.1

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	NOTES & TEST RESULTS
530.1	0.0		Brown mottled silty clay, trace fine sand, very stiff, medium plasticity, wet CL	AU-1 0.0-2.0		
				SS-2 2.0-4.0 24"R	5 5 5 4	
				SS-3 4.0-6.0 24"R	3 4 5 7	
				3T-4 6.0-8.0 24"R		3T-4: Dry Dens. = 99pcf K = 4.7 E--8cm/s
			Brown at 8.0'	SS-5AB 8.0-10.0 24"R	2 4 5 6	
520.6	9.5		Gray silty clay, trace fine sand, medium stiff to stiff, medium to high plasticity, wet CL/CH	SS-6 10.0-12.0 24"R	1 2 1 1	Soft clay from 10.5' to 11.0'.
				3T-7 12.0-14.0 24"R		
516.1	14.0		Dark gray silty clay, trace fine sand, soft to medium stiff, medium plasticity, wet CL	SS-8 14.0-16.0 24"R	1 1 1 1	SS-8: LL = 32 PL = 20 PI = 12 Gravel = 0% Sand = 8% Silt or Clay = 92%
				SS-9 16.0-18.0 24"R	WOH 1 1 2	
				3T-10 18.0-20.0 24"R		
510.1	20.0					

Water Content: PL □ – – – ○ – – – △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)

23.1
22.1
20.3
28.0
27.4
33.5
45.4
29.1
24.2

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/23/92** ENDED **7/23/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ **31.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER B-4 SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,488.2 E 2,060.4

LOGGED BY KRR
GROUND ELEVATION 530.1

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
510.1	20.0		Dark gray silty clay, trace fine sand, stiff, medium plasticity, wet CL	SS-11 20.0-22.0 24"R	1 2 1 1
				SS-12 22.0-24.0 24"R	2 2 3 4
505.6	24.5		Gray clayey fine sand, some silt, very loose to loose, poorly graded, moist to saturated SC	SS-13 24.0-26.0 24"R	1 2 1 1
				SS-14 26.0-28.0 24"R	1 3 2 2
				SS-15 28.0-30.0 24"R	1 1 2 2
				SS-16 30.0-32.0 24"R	1 1 1 1
498.1	32.0		Gray coarse to fine sand, trace silt, trace fine gravel, medium dense, poorly graded, saturated SP	SS-17AB 32.0-34.0 24"R	8 10 13 126
496.6	33.5		Gray siltstone/shale		
495.6	34.5		End or Boring at 34.5'.	SS-18 34.0-34.5 0"R	82 100+/- 1"

Water Content
PL ☐ - - - ○ - - - △ LL
10 20 30 40 50
Unconfined Compressive Strength (TSF) ✳
1 2 3 4 5

21.1
18.9
19.7
17.7
19.6
20.4
14.5

NOTES & TEST RESULTS

SS-14:
Gravel = 0%
Sand = 56%
Silt or Clay = 44%

Water level at 31.0' during drilling.
Water level was observed to rise rapidly after retrieving SS-17.

Blow-in at 34.0'

Water level within augers at 6.0' one hour after completion of drilling.

Borehole was termie grouted using Volclay grout.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/23/92** ENDED **7/23/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **31.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-5** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,204.3 E 2,049.3**

LOGGED BY **KRR**
GROUND ELEVATION **529.5**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
529.5	0.0		Brown silty clay, trace coarse to fine sand, soft to very stiff, low to medium plasticity, moist to wet CL	AU-1 0.0-2.0		13.4	
				SS-2 2.0-4.0 12"R	4 3 4 4	13.5 ✳	
			Mottled brown from 4.0'	SS-3 4.0-6.0 18"R	3 2 4 3	✳ 25.3	
				SS-4 6.0-8.0 20"R	3 4 4 4	✳ 22.9	
				SS-5 8.0-10.0 24"R	2 1 2 2	✳ 24.9	
			Little fine sand at 9.5'	SS-6 10.0-12.0 20"R	2 2 2 2	✳ 23.1	
517.2	12.3		Gray silty clay, trace fine sand, medium stiff, medium plasticity, wet CL	SS-7 12.0-14.0 22"R	2 1 1 2	✳ 28.3	
514.5	15.0		Gray fine sand, trace coarse to medium sand, trace silt, very loose, poorly graded, saturated SP	3T-8 14.0-16.0 24"R			Water level at 14.0' during drilling.
512.5	17.0		Gray silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-9AB 16.0-18.0 24"R	1 2 1 2	✳ 30.3	
509.5	20.0			SS-10 18.0-20.0 24"R	1 1 1 1	✳ 25.8	

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/24/92** ENDED **7/24/92**

REMARKS

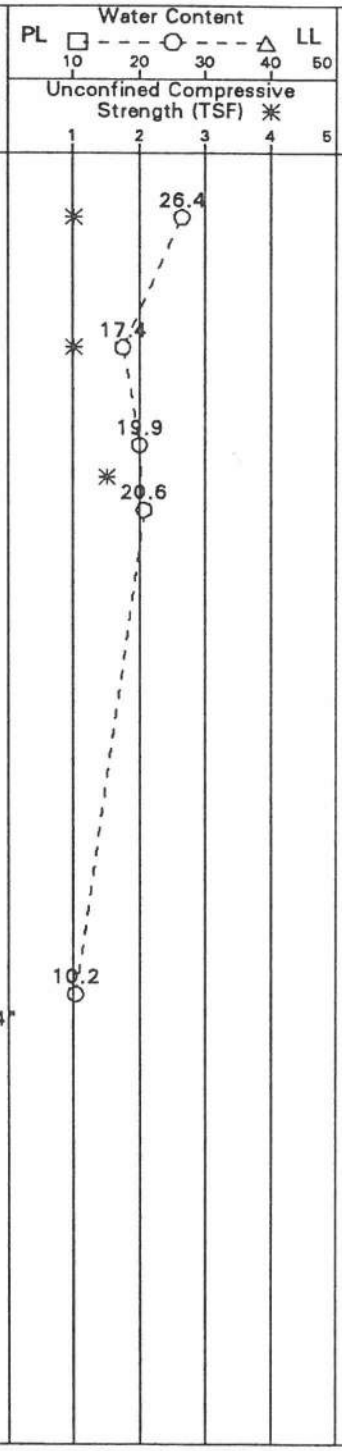
WATER LEVEL (ft.)
▽ **14.0'** during drilling
▽ **6.8'** after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-5** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,204.3 E 2,049.3**

LOGGED BY **KRR**
GROUND ELEVATION **529.5**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
509.5	20.0		Gray silty clay, trace fine sand, stiff, medium plasticity, wet CL	SS-11 20.0-22.0 24"R	3 2 2 2
507.5	22.0		Gray clayey silt to silty clay, little fine sand, stiff, low plasticity, moist to wet CL-ML/CL	SS-12 22.0-24.0 24"R	1 2 3 2
				SS-13AB 24.0-26.0 24"R	2 2 3 2
504.3	25.2		Gray clayey sand, some silt, loose, poorly graded, saturated SC	SS-14 26.0-28.0 24"R	2 2 3 4
			Trace coarse to medium sand at 27.0'		
501.0	28.5		Gray coarse to fine sand, little to some silt, trace fine gravel, loose to medium dense, poorly graded, saturated SP	SS-15 28.0-30.0 24"R	3 4 4 6
				SS-16 30.0-32.0 24"R	3 3 4 4
497.5	32.0		Gray fine sand, trace silt, loose to dense, poorly graded, saturated SP	SS-17 32.0-34.0 24"R	4 14 45 120/4"
496.0	33.5		Gray shale, massive, good		
				PQ-18 37.0-39.0 24"R	
490.5	39.0		End of Boring at 39.0'.		



NOTES & TEST RESULTS

Water level at 6.8' immediately after drilling prior to coring.
Auger refusal at 34.0'. Changed to rock coring. Could not core from 34.0' to 37.0' due to problems with core barrel.
RQD = 80%

Borehole was tremie grouted using Volclay immediately after drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/24/92** ENDED **7/24/92**

REMARKS

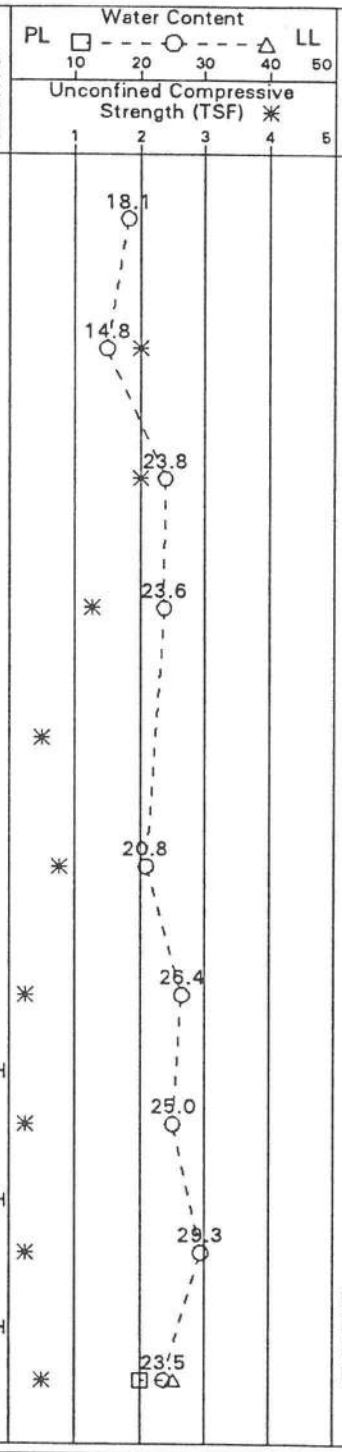
WATER LEVEL (ft.)
▽ **14.0'** during drilling
▽ **6.8'** after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER B-6 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,072.9 E 2,588.6

LOGGED BY KRR
GROUND ELEVATION 530.8

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
530.8	0.0		Brown silty clay, trace coarse to fine sand, stiff, low plasticity, moist CL	AU-1 0.0-2.0	
				SS-2 2.0-4.0 10"R	3 4 4 4
526.8	4.0		Dark gray silty clay, trace coarse to fine sand, stiff, medium plasticity, wet CL	SS-3 4.0-6.0 10"R	1 3 4 5
				SS-4 6.0-8.0 24"R	2 2 2 3
				3T-5 8.0-10.0 20"R	
521.8	9.0		Brown silty clay, trace to little fine sand, soft to medium stiff, medium plasticity, wet CL	SS-6 10.0-12.0 24"R	
			Lenses of fine sand in SS-6		
				SS-7 12.0-14.0 24"R	1 2 1 1
			Lenses of fine sand in SS-7		
				SS-8 14.0-16.0 24"R	WOH 1 1 2
514.8	16.0		Gray silty clay, trace coarse to fine sand, soft, low to medium plasticity, wet CL	SS-9 16.0-18.0 24"R	WOH 1 1 1
				SS-10 18.0-20.0 24"R	WOH 1 1 2
510.8	20.0				



NOTES & TEST RESULTS

SS-10:
LL = 25
PL = 20
PI = 5

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 8/3/92 ENDED 8/3/92

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ 22.0' during drilling.
▽ 9.0' after drilling.

PATRICK ENGINEERING INC.

BORING NUMBER **B-6** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION **N 5,072.9 E 2,588.6**

LOGGED BY **KRR**
GROUND ELEVATION **530.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ ---○--- △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
510.8	20.0		Gray silty clay, trace coarse to fine sand, soft, low to medium plasticity, wet, fill CL	SS-11 20.0-22.0 24"R	WOH 1 1 1	✳ 24.4	PI = 5
508.3	22.5		Gray clayey silt to clayey sand, very loose, poorly graded, saturated CL-ML/SC	SS-12 22.0-24.0 24"R	WOH WOH 1 2	20.3	Water level at 22.0' during drilling.
				SS-13 24.0-26.0 24"R	1 1 1 1	27.1	
				SS-14 26.0-28.0 24"R	1 1 1 1	24.6	SS-14 Gravel = 0% Sand = 44% Silt or clay = 56%
500.8	30.0			SS-15 28.0-30.0 24"R	WOH 1 1 1	21.2	
			Gray fine sand, trace coarse to medium sand, trace fine gravel, very loose, poorly graded, saturated SP	SS-16 30.0-32.0 24"R	1 1 1 1	25.6	
498.8	32.0		Gray coarse to fine sand, trace to little coarse to fine gravel, trace silt, medium dense to dense, well graded, saturated SW/SW-SM	SS-17 32.0-34.0 24"R	10 16 15 15	8.4	Blow-in at 32.0'.
496.3	34.5		Gray silty clay to clay, hard, medium to high plasticity, moist to dry CL/CH	SS-18 34.0-36.0 24"R	6 8 20 41	✳ 15.9	
				SS-19 36.0-38.0 14"R	40 62 100+ /2"	8.9	Hard drilling. Water level at 9.0' after drilling.
493.3	37.5						
492.8	38.0		Gray shale				Borehole was tremie grouted using Volclay grout immediately after drilling.
			End of Boring at 38.0'.				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/3/92** ENDED **8/3/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ **22.0'** during drilling.
▽ **9.0'** after drilling.
▽

PATRICK ENGINEERING INC.

BORING NUMBER B-7 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,743.9 E 2,684.2

LOGGED BY KRR
GROUND ELEVATION 523.3

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	NOTES & TEST RESULTS
523.3	0.0		Brownish-gray to brown silty clay, trace coarse to fine sand, trace roots, very soft, medium plasticity, wet, fill CL	AU-1 0.0-2.0		
522.1	1.2		Gray silty clay, trace to little fine sand, very soft, medium plasticity, wet, fill CL	SS-2AB 2.0-4.0 24"R	WOH	
519.8	3.5		Gray clayey fine sand, little silt, very loose, poorly graded, saturated, fill SC	SS-3 4.0-6.0 4"R	WOH	
518.3	5.0		Gray silty clay, trace to little fine sand, very soft, mucky, medium plasticity, wet, fill. CL	SS-4 6.0-8.0 24"R	WOH	SS-4 Gravel = 0% Sand = 33% Silt or clay = 67%
				SS-5 8.0-10.0 18"R	WOH	
			Lenses of fine sand and wood fragments in SS-6.	SS-6 10.0-12.0 18"R	WOH WOH WOH 6	
510.8	12.5		Gray silty clay, trace to little fine sand, stiff, medium plasticity, wet CL	SS-7 12.0-14.0 20"R	WOH WOH 2 2	Water level at 12.0' during drilling.
508.3	15.0		Gray clayey silt and fine sand, loose, nonplastic, saturated CL-ML	SS-8 14.0-16.0 24"R	WOH WOH 2 3	
				SS-9 16.0-18.0 24"R	2 2 2 2	SS-9 Gravel = 0% Sand = 38% Silt or clay = 62%
				SS-10 18.0-20.0 24"R	1 2 1 2	
503.3	20.0					

Water Content: PL □ - - - ○ - - - △ LL; 10 20 30 40 50
Unconfined Compressive Strength (TSF) ✳: 1 2 3 4 5
Plotted values: 25.9, 27.3, 22.8, 36.7, 24.4, 28.1, 29.9, 24.1, 21.0, 18.2, 20.2

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/5/92** ENDED **8/5/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ **12.0'** during drilling.

PATRICK ENGINEERING INC.

BORING NUMBER **B-7** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,743.9 E 2,684.2**

LOGGED BY **KRR**
GROUND ELEVATION **523.3**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
503.3	20.0		Gray clayey silt and fine sand, loose, nonplastic, saturated CL-ML/SC	SS-11 20.0-22.0 24"R	1 1 1 1	21.7 ○	
				3T-12 22.0-24.0 20"R			Gray fine sand at bottom of Shelby tube.
499.8	23.5		Gray fine sand, trace silt, medium dense to dense, poorly graded, saturated SP	SS-13 24.0-26.0 24"R	10 14 14 22		Artesian conditions.
496.8	26.5		Gray coarse to fine sand, trace coarse to fine gravel, trace silt, loose, well graded, saturated SW	SS-14 26.0-28.0 24"R	WOH		
494.8	28.5		Gray shale, massive, good	SS-15AB 28.0-30.0 16"R	10 52 100+ /"4	12.3 ○	Drilled to 30.0' then, switched to PQ coring.
				PQ-16 30.0-35.0 60"R			RQD = 80%
488.3	35.0		End of Boring at 35.0'.				Borehole was grouted using Volclay grout after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/5/92** ENDED **8/5/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **12.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-8** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,565.9 E 2,706.2**

LOGGED BY **KRR**
GROUND ELEVATION **523.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
523.8	0.0		Brown silty clay, trace fine sand, soft, medium plasticity, wet CL	AU-1 0.0-2.0		21.0	
				SS-2 2.0-4.0 24"R	1 1 2 2	✳ 30.7	
				3T-3 4.0-6.0 24"R		✳	
				SS-4 6.0-8.0 24"R	1 2 2 3	✳ 25.6	
			Fine sand lenses in SS-4				Water Level at 6.0' during drilling.
				SS-5 8.0-10.0 24"R	1 2 2 3	✳ 10.7	
			Trace coarse to fine sand and trace coal in SS-5				
513.3	10.5			SS-6 10.0-12.0 24"R	2 3 3 4	✳ 34.2	
			Gray and olive silty clay to clay, trace fine sand very soft to medium stiff, medium to high plasticity, wet CL/CH	3T-7 12.0-14.0 24"R		✳	
				SS-8 14.0-16.0 24"R	1 1 1 3	✳ 44.5	
			Mucky at 16.0'	SS-9 16.0-18.0 24"R	2 1 1 1	✳ 50.2	
			Mucky at 18.0'	SS-10 18.0-20.0 24"R	WOH WOH WOH WOH	✳ 46.8	
503.8	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/15/92** ENDED **8/15/92**

REMARKS
WOH = Weight of Hammer

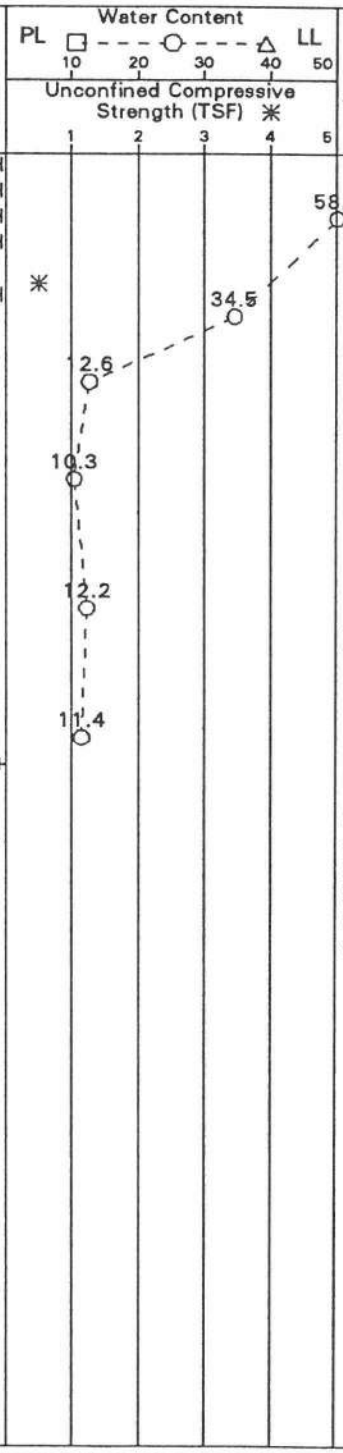
WATER LEVEL (ft.)
▽ **6.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-8** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,565.9 E 2,706.2**

LOGGED BY **KRR**
GROUND ELEVATION **523.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
503.8	20.0		Gray clay, trace silt, very soft, medium to high plasticity, wet CL/CH	SS-11 20.0-22.0 24"R	WOH WOH WOH WOH
501.8	22.0				
501.2	22.6		Gray silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-12ABC 22.0-24.0 24"R	WOH 5 6 15
500.6	23.2		Gray fine sand, little silt, medium to dense, poorly graded, saturated SM	SS-13 24.0-26.0 24"R	3 11 18 22
			Gray coarse to fine sand, trace coarse to fine gravel, trace to little silt, medium dense to dense, well graded, saturated SW-SM/SM	SS-14 26.0-28.0 24"R	6 9 19 17
				SS-15AB 28.0-30.0 24"R	5 12 23 100+
494.8	29.0		Gray shale, soft		
493.8	30.0		End of Boring at 30.0'		



NOTES & TEST RESULTS

Artesian conditions.

Borehole was tremie grouted using Volclay grout immediately after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/15/92** ENDED **8/15/92**

REMARKS
WOH = Weight of Hammer

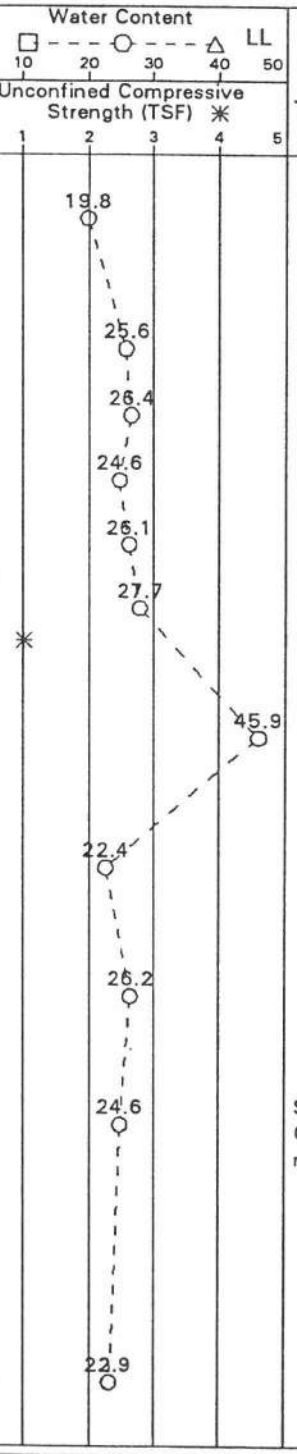
WATER LEVEL (ft.)
▽ **6.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER B-9 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 4,690.7 E 2,506.0

LOGGED BY KRR
GROUND ELEVATION 522.7

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
522.7	0.0		Brown silty clay, trace fine sand, soft, medium plasticity, wet CL	AU-1 0.0-2.0	
				SS-2 2.0-4.0 24"R	1 1 1 2
				SS-3AB 4.0-6.0 24"R	WOH 1 2 1
517.7	5.0		Brown silty clay to clayey fine sand, soft, low plasticity, wet CL/SC		
516.7	6.0		Brown and tan silty clay trace coarse to fine sand, soft, medium plasticity, wet CL	SS-4 6.0-8.0 24"R	2 3 2 4
515.7	7.0		Gray silty clay to clayey silt, trace fine sand, medium soft, medium plasticity, wet CL	SS-5 8.0-10.0 24"R	WOH 1 1 2
513.9	8.8		Gray fine sand, some silt, wood fragments present, very loose, poorly graded, saturated SM	SS-6 10.0-12.0 24"R	WOH 1 1 2
512.7	10.0		Gray clayey sand, little silt, very loose, poorly graded, saturated SC		
510.3	12.4		Trace shells and fine gravel at 12.0' Gray silty clay, trace to little fine sand, soft, medium plasticity, wet CL	SS-7 12.0-14.0 24"R	WOH 1 1 1
				SS-8 14.0-16.0 24"R	WOH WOH WOH WOH
				3T-9 16.0-18.0 24"R	
			Fine sand lenses	SS-10 18.0-20.0 24"R	WOH WOH WOH WOH



NOTES & TEST RESULTS

SS-8:
CEC = 10.7 meq/100gm

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/14/92** ENDED **8/14/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **9.0'** after drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER B-9 SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 4,690.7 E 2,506.0

LOGGED BY KRR
GROUND ELEVATION 522.7

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
502.7	20.0		Gray silty clay, some fine sand, soft, medium plasticity, wet	SS-11 20.0-22.0 24"R	WOH 1 1 2
502.2	20.5		CL		
			Gray clayey fine sand and silt, very loose, poorly graded, saturated	SS-12 22.0-24.0 24"R	WOH WOH 1 2
			SC		
			Wood fragments and trace organics present in SS-12		
498.2	24.5		Gray coarse to fine sand, trace coarse to fine gravel, trace silt, medium dense, well graded, saturated	SS-13 24.0-26.0 24"R	WOH WOH 13 5
			SW-SM		
495.7	27.0		Gray shale	SS-14 26.0-28.0 24"R	3 4 40 73
494.7	28.0		End of Boring at 28.0'		

Water Content: PL □ - - - ○ - - - △ LL (10, 20, 30, 40, 50)
Unconfined Compressive Strength (TSF) ✳ (1, 2, 3, 4, 5)
19.8
22.2
12.2
11.8

NOTES & TEST RESULTS

Water level at 9.0' immediately after drilling.

Borehole was tremie grouted immediately after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/14/92** ENDED **8/14/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ 9.0' after drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-10** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,589.2 E 2,463.3**

LOGGED BY **KRR**
GROUND ELEVATION **523.6**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
523.6	0.0		Brown silty clay, trace fine sand, soft to medium stiff, medium plasticity, wet CL	AU-1 0.0-2.0		24.3 ○	
				SS-2 2.0-4.0 24"R	2 2 2 2	✳ 24.7 ○	
				SS-3 4.0-6.0 24"R	1 2 3 3	✳ 25.7 ○	
				3T-4 6.0-8.0 24"R		✳	
516.1	7.5		Gray silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-5 8.0-10.0 24"R	WOH 1 2 2	✳ 27.2 ○	
			1" lense of fine sand at 9.0'	SS-6 10.0-12.0 24"R	WOH 1 2 1	✳ 25.1 ○	
				SS-7 12.0-14.0 24"R	1 1 1 1	✳ 27.2 ○	Water level at 12.0' during drilling.
			Mucky at 14.0'	SS-8 14.0-16.0 24"R	WOH 1 1 1	✳ 24.1 ○	
				SS-9 16.0-18.0 24"R	WOH WOH WOH 1	✳ 25.5 ○	
				SS-10 18.0-20.0 24"R	WOH 1 1 2	23.8 ○	
503.6	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/15/92** ENDED **8/15/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **12.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-10** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,589.2 E 2,463.3**

LOGGED BY **KRR**
GROUND ELEVATION **523.6**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
503.6	20.0		Gray silty clay, trace to little fine sand, soft, medium plasticity, wet CL	SS-11 20.0-22.0 24"R	WOH 1 1 2
				SS-12 22.0-24.0 24"R	WOH 1 1 3
499.4	24.2		Gray coarse to fine sand, trace coarse to fine gravel, trace silt, loose to medium dense, well graded, saturated SW-SM/SM	SS-13AB 24.0-26.0 24"R	6 7 4 4
498.1	25.5		Gray shale, soft Hard at 26.5'	SS-14 26.0-27.0 13"R	11 43 100+ /1"
496.6	27.0		End of Boring 27.0'		

Water Content: PL □ - - - ○ - - - △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)
23.4 ✳
20.8 ✳
20.0
10.5

NOTES & TEST RESULTS

Artesian conditions immediately after drilling.

Borehole was tremie grouted using Volclay grout immediately after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/15/92** ENDED **8/15/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **12.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-11** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,775.2 E 2,391.2**

LOGGED BY **KRR**
GROUND ELEVATION **523.6**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
523.6	0.0		Brown silty clay, trace fine sand, soft to stiff, medium plasticity, wet CL	AU-1 0.0-2.0		21.4 ○	
			Mottled at 2.0'	SS-2 2.0-4.0 24"R	2 1 2 3	✳ 21.9 ○	
			Tan at 4.0'	SS-3 4.0-6.0 24"R	2 2 2 3	✳ 24.0 ○	
				3T-4 6.0-8.0 22"R		✳	
515.2	8.4		Gray silty clay, trace fine sand, soft, medium plasticity, moist CL	SS-5 8.0-10.0 24"R	1 1 1 2	✳ 29.3 ○	
				SS-6 10.0-12.0 24"R	1 2 2 2	✳ 26.8 ○	
				3T-7 12.0-14.0 22"R		✳	
				SS-8 14.0-16.0 24"R	WOH 1 1 1	✳ 24.7 ○	
				SS-9 16.0-18.0 24"R	WOH 1 2 2	✳ 23.7 ○	Water level at 16.0' during drilling.
			Fine sand pockets in SS-10	SS-10 18.0-20.0 24"R	WOH 1 1 2	✳ 21.7 ○	

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/14/92** ENDED **8/14/92**

REMARKS
WOH = Weight of Hammer

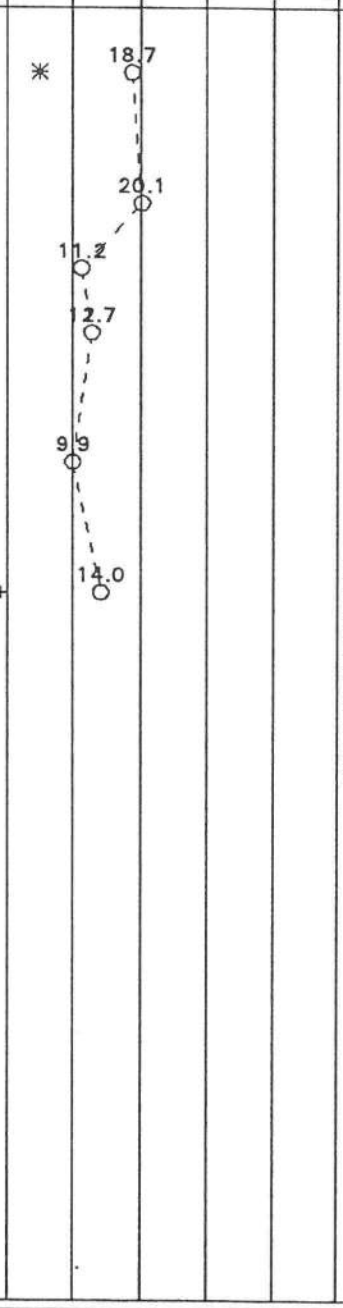
WATER LEVEL (ft.)
▽ **16.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-11** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,775.2 E 2,391.2**

LOGGED BY **KRR**
GROUND ELEVATION **523.6**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
503.6	20.0		Gray silty clay, trace to little fine sand, soft, medium plasticity, wet CL	SS-11 20.0-22.0 24"R	1 2 2 3
501.8	21.8		Gray fine sand and silty, loose to medium dense, poorly graded, saturated SM	SS-12AB 22.0-24.0 24"R	1 3 8 11
500.4	23.2		Gray coarse to fine sand, little coarse to fine gravel, trace silt, medium dense, well graded, saturated SW-SM/SM	SS-13 24.0-26.0 24"R	14 13 15 15
			Clayey at 26.0'	SS-14 26.0-28.0 24"R	5 6 16 12
495.4	28.2		Gray shale, soft	SS-15 28.0-29.2 14"R	8 18 100+ /2"
494.4	29.2		End of Boring at 29.2'		



NOTES & TEST RESULTS

Water level at ground surface immediately after drilling.
Borehole was tremie grouted using Volclay grout immediately after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/14/92** ENDED **8/14/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **16.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-12** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,924.2 E 2,210.8**

LOGGED BY **KRR**
GROUND ELEVATION **524.9**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
524.9	0.0		Brown silty clay, trace fine sand, soft, medium plasticity, wet CL	AU-1 0.0-2.0		20.7	
522.6	2.3			SS-2AB 2.0-4.0 24"R	1 2 1 2	✳ 28.1 26.3	Water level at 3.0' during drilling.
521.9	3.0		Brown clayey silt to silty sand, loose, poorly graded, saturated CL-ML/SM				
			Brown and tan silty clay, trace to little fine sand, soft, medium plasticity, wet CL	SS-3 4.0-6.0 22"R	1 2 2 2	✳ 27.6	
518.9	6.0		Brown and tan clayey fine sand, little silt, very loose, poorly graded, saturated SC	SS-4 6.0-8.0 12"R	1 1 2 3	23.3	
517.4	7.5		Gray silty clay, trace fine sand, soft to medium stiff, medium plasticity, wet CL	SS-5 8.0-10.0 22"R	1 1 1 2	✳ 28.5	
			Lenses of fine sand in SS-5	SS-6 10.0-12.0 24"R	1 2 2 2	✳ 30.1	
			Trace wood fragments in SS-6	3T-7 12.0-14.0 24"R		✳	
				SS-8 14.0-16.0 24"R	1 1 1 1	✳ 24.7	
				SS-9 16.0-18.0 24"R	1 1 2 3	✳ 26.4	
				SS-10 18.0-20.0 24"R	WOH 1 1 1	✳ 25.4	

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D.**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/14/92** ENDED **8/14/92**

REMARKS
WOH = Weight of Hammer

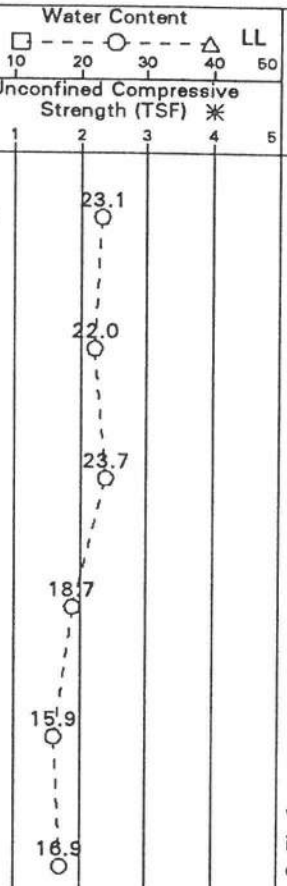
WATER LEVEL (ft.)
▽ **3.0'** during drilling
▽ **4.3'** immediately after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-12** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,924.2 E 2,210.8**

LOGGED BY **KRR**
GROUND ELEVATION **524.9**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
504.9	20.0		Gray, silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-11 20.0-22.0 24"R	WOH 1 1 2
			Little to some fine sand from 23.0'	SS-12 22.0-24.0 24"R	WOH 1 1 2
500.4	24.5		Gray fine sand, some silt, very loose, poorly graded, saturated SM	SS-13 24.0-26.0 24"R	WOH WOH 1 2
498.9	26.0		Gray coarse to fine sand, trace to little coarse to fine gravel, trace silt, loose to medium dense, well graded, saturated SW-SM	SS-14 26.0-28.0 24"R	2 3 3 3
				SS-15 28.0-30.0 24"R	2 3 11 11
494.9	30.0		Gray shale, soft	SS-16 30.0-31.0 12"R	22 100+
493.9	31.0		End of Boring at 31.0'		



NOTES & TEST RESULTS

Water level at 4.3' immediately after drilling.

Borehole was tremie grouted using Volclay grout immediately after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D.**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/14/92** ENDED **8/14/92**

REMARKS
WOH = Weight of Hammer

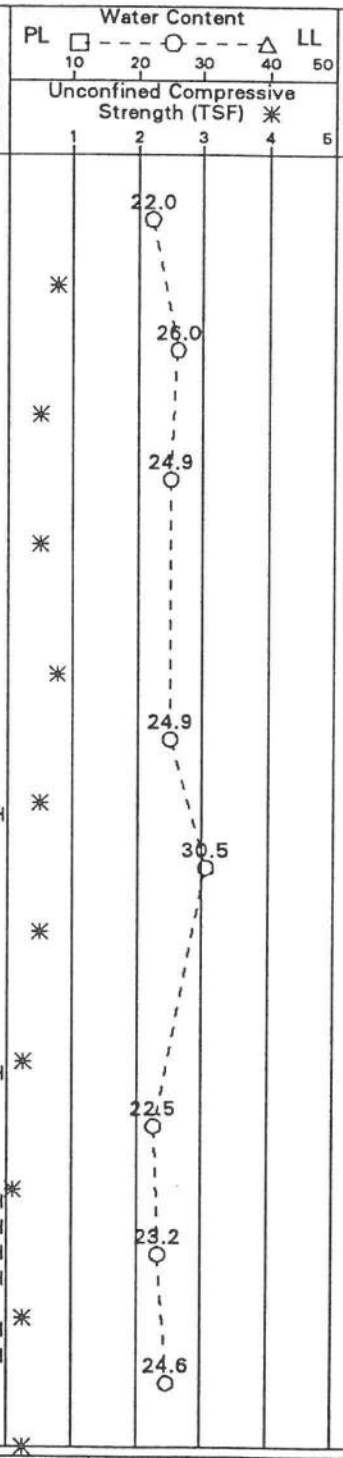
WATER LEVEL (ft.)
▽ **3.0'** during drilling
▽ **4.3'** immediately after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-13** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,524.7 E 2,275.9**

LOGGED BY **KRR**
GROUND ELEVATION **523.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
523.8	0.0		Brown silty clay, trace coarse to fine sand, soft to medium stiff, medium plasticity, wet CL	AU-1 0.0-2.0	
			Brown and tan from 2.0'	SS-2 2.0-4.0 24"R	1 2 2 3
				SS-3 4.0-6.0 24'R	2 1 2 2
			Little fine sand in SS-3		
				3T-4 6.0-8.0 24"R	
516.8	7.0		Gray silty clay, trace coarse to fine sand, medium stiff, medium plasticity, wet CL	SS-5 8.0-10.0 24"R	2 2 2 2
				SS-6 10.0-12.0 24"R	WOH 1 2 3
				3T-7 12.0-14.0 24"R	
509.8	14.0		Gray silty clay, trace to little fine sand, very soft to soft, medium plasticity, wet CL	SS-8 14.0-16.0 24"R	WOH 1 1 1
				SS-9 16.0-18.0 24"R	WOH WOH WOH WOH
				SS-10 18.0-20.0 24"R	WOH WOH 1 1
503.8	20.0				



NOTES & TEST RESULTS

Water level at 7.0' during drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/4/92** ENDED **8/4/92**

REMARKS
WOH = Weight of Hammer

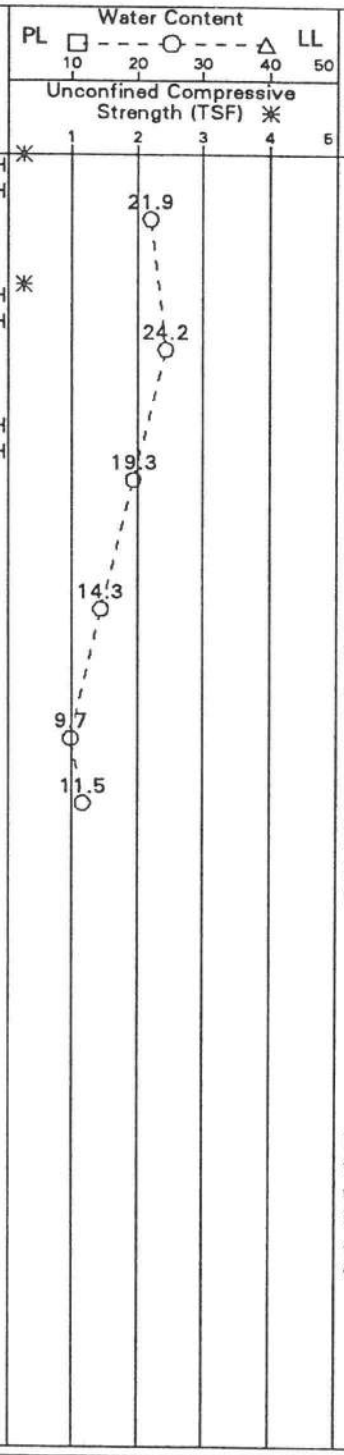
WATER LEVEL (ft.)
▽ **7.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-13** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,524.7 E 2,275.9**

LOGGED BY **KRR**
GROUND ELEVATION **523.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
503.8	20.0		Gray silty clay, trace little fine sand, very soft to soft, medium plasticity, wet CL	SS-11 20.0-22.0 24"R	WOH WOH 1 1
				SS-12 22.0-24.0 24"R	WOH WOH 1 1
499.3	24.5		Gray clayey fine sand, some silt, very loose, poorly graded, saturated SC	SS-13 24.0-26.0 24"R	WOH WOH 1 2
497.8	26.0		Gray coarse to fine sand, little coarse to fine gravel, little silt, medium dense to dense, well graded, saturated SM	SS-14 26.0-28.0 24"R	4 4 12 19
				SS-15AB 28.0-30.0 24"R	15 22 42 58
494.5	29.3		Gray shale, massive, excellent	PQ-16 30.0-35.0 60"R	
488.8	35.0		End of Boring at 35.0'		



NOTES & TEST RESULTS

SS-14:
Gravel = 16%
Sand = 65%
Silt or clay = 19%
Artesian conditions. Water found to overflow.

Auger refusal at 30.0'. Switched to PQ coring.
RQD = 100%

Borehole was tremie grouted using Volclay grout immediately after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/4/92** ENDED **8/4/92**

REMARKS
WOH = Weight of Hammer

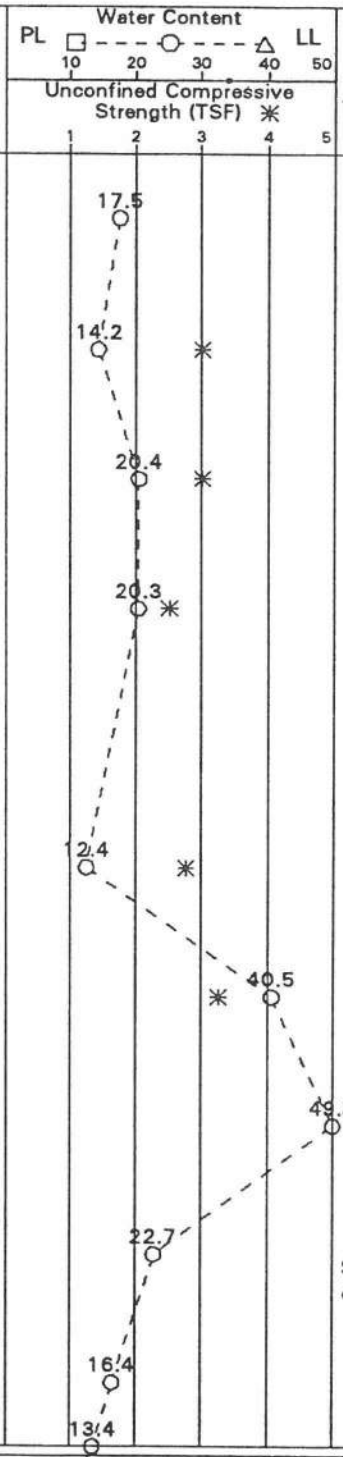
WATER LEVEL (ft.)
▽ **7.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-14** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 3,763.9 E 2,791.1**

LOGGED BY **KRR**
GROUND ELEVATION **572.7**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
572.7	0.0		Brown silty clay, trace fine sand, very stiff, low to medium plasticity, moist to wet CL	AU-1 0.0-2.0	
				SS-2 2.0-4.0 22"R	3 4 4 6
			Trace coarse to medium sand, trace fine gravel from 4.0'	SS-3 4.0-6.0 24"R	4 6 9 11
				SS-4 6.0-8.0 24"R	5 6 7 7
				3T-5 8.0-10.0 24"R	
			Silty sand at 10.0'	SS-6 10.0-12.0 24"R	4 6 6 4
			Little to some sand in SS-6		
560.2	12.5		Dark gray to black organic silty clay, trace fine sand, very stiff, medium plasticity, wet OL	SS-7 12.0-14.0 24"R	4 7 9 15
558.2	14.5		Coal	SS-8 14.0-16.0 24"R	7 18 32 34
				SS-9 16.0-18.0 18"R	22 39 50+
553.7	19.0		Gray shale	SS-10AB 18.0-20.0 24"R	12 10 16 18
552.7	20.0				



NOTES & TEST RESULTS

SS-9 driven 18" only.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/17/92** ENDED **8/17/92**

REMARKS

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER **B-14** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION **N 3,763.9 E 2,791.1**

LOGGED BY **KRR**
GROUND ELEVATION **572.7**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
552.7	20.0		Gray shale.	SS-11 20.0-22.0 2"R	10 11 15 24		Auger refusal of 22.1'. Water was not encountered during or immediately after drilling. Borehole was grouted using Volclay grout immediately after completion of drilling.
550.7	22.0		End of Boring at 22.1'.	SS-12 22.0-22.1 2"R	100 +/2"		

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/17/92** ENDED **8/17/92**

REMARKS

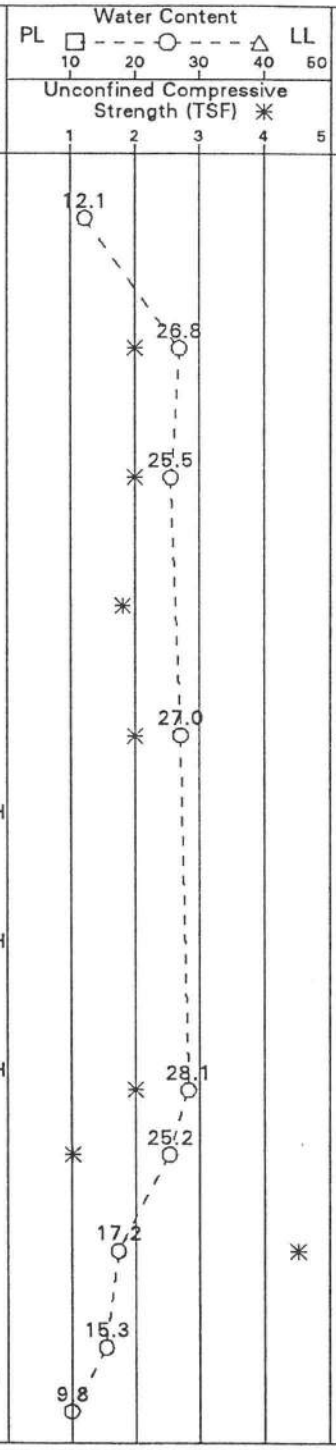
WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER B-15 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 5,579.6 E 1,752.7

LOGGED BY KRR
GROUND ELEVATION 536.7

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
536.7	0.0		Brown silty clay, trace coarse to fine sand, stiff, medium plasticity, wet CL	AU-1 0.0-2.0	
				SS-2 2.0-4.0 14"R	7 6 8 9
				SS-3 4.0-6.0 24"R	4 6 6 9
				3T-4 6.0-8.0 14"R	
			Brown and olive at 8.0'.	SS-5AB 8.0-10.0 24"R	2 2 4 5
527.7	9.0		Brown fine sand, trace silt, loose, poorly graded, saturated SP-SM/SM	SS-6 10.0-12.0 18"R	WOH 2 2 2
				SS-7A/B 12.0-14.0 24"R	WOH 2 2 2
523.7	13.0		Dark gray and gray silty clay, trace organics, trace coarse to fine sand, soft, medium plasticity, wet CL/OL	SS-8AB 14.0-16.0 24"R	WOH 1 2 5
521.7	15.0		Organics present in SS-8A. Brown and olive silty clay, trace coarse to fine sand, very stiff, low plasticity, moist	SS-9 16.0-18.0 24"R	5 6 6 4
520.2	16.5		CL Brown and olive silty clay to clayey silt, trace to fine sand, hard, low plasticity, moist CL Changed to brown from 19.0'.	SS-10AB 18.0-20.0 24"R	2 7 20 32
516.7	20.0				



NOTES & TEST RESULTS

Water level at 9.0' during drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/21/92** ENDED **8/21/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **9.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-15** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION **N 5,579.6 E 1,752.7**

LOGGED BY **KRR**
GROUND ELEVATION **536.7**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
516.7	20.0		Brown shale, soft.	SS-11 20.0-22.0 8"R	80 100 +/2"	9.7 ○	
				SS-12 22.0-24.0 7"R	31 100 +/1"	7.8 ○	
512.7	24.0		End of Boring at 24.5'.				Auger refusal at 24.5'. Borehole was tremie grouted using Volclay grout immediately after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/21/92** ENDED **8/21/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **9.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **CB-1** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,559.1 E 2,663.1**

LOGGED BY **KRR**
GROUND ELEVATION **527.3**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
527.3	0.0		Dark gray silty clay, trace coarse to fine sand, very stiff, medium plasticity, wet, fill CL	AU-1 0.0-2.0		20.1	Grass and weeds at the surface.
				SS-2 2.0-4.0 16"R	6 4 4 5	19.2 ✳	
			Mottled at 4.0'	SS-3 4.0-6.0 20"R	3 4 8 15	✳ 30.3	
522.3	5.0		Dark gray organic silty clay, trace fine sand, trace roots and wood fragments, soft to stiff, medium plasticity, wet, fill OL	SS-4 6.0-8.0 24"R	1 1 2 2	✳ 30.2	
				3T-5 8.0-10.0 24"R		✳ □ 29.4 - ○ - - - △	3T-5: Dry Den. = 94pcf qu = 0.6tsf LL = 41 PL = 23 k = 1.5 E-07 cm/s
				SS-6 10.0-12.0 18"R	1 2 2 2	✳	
514.5	12.8			SS-7ABC 12.0-14.0 24"R	1 1 2 2	✳ 29.9 ✳ 21.2	
513.8	13.5		Gray clayey fine sand, trace coarse to medium sand, trace fine gravel, loose, poorly graded, saturated, fill SC				
513.1	14.2		Dark gray to black organic silty clay, trace coarse to fine sand, wood fragments present, soft, medium plasticity, wet, fill OL	SS-8 14.0-16.0 24"R	1 2 1 1	✳ 35.4	
			Dark gray clayey fine sand, trace coarse to medium sand, trace organics, wood fragments present, very loose, poorly graded, saturated, fill SC	SS-9 16.0-18.0 24"R	1 1 1 1	36.3	
509.3	18.0			SS-10AB 18.0-20.0 24"R	1 1 2 1	56.2	
508.3	19.0		Gray coarse to fine sand, trace silt, trace organics, very loose, poorly graded, saturated, fill SP-SM				
507.3	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/23/92** ENDED **7/23/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **17.0'** during drilling
▽ **15.5'** after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER **CB-1** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,559.1 E 2,663.1**

LOGGED BY **KRR**
GROUND ELEVATION **527.3**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
507.3	20.0		Dark to black organic silty clay, wood fragments present, soft, medium dense, wet, fill OL	SS-11 20.0-22.0 24"R	1 1 2 1		
505.3	22.0		Gray fine sand, trace coarse to medium sand, little to some silt, very loose, poorly graded, saturated SP-SM/SM	SS-12 22.0-24.0 24"R	1 2 1 2		
			Gray silty sand, little clay, very loose, poorly graded, saturated SM	SS-13 24.0-26.0 24"R	1 1 1 2		SS-13: Gravel = 0% Sand = 69% Silt or clay = 31%
				SS-14 26.0-28.0 24"R	WOH 1 1 2		
499.3	28.0		Gray fine sand, trace coarse to medium sand, trace silt, trace coarse to fine gravel, loose, poorly graded, saturated SP/SP-SM	SS-15 28.0-30.0 24"R	WOH 1 3 5		
			Little to some silt, little coarse to medium sand in SS-16	SS-16 30.0-32.0 24"R	3 3 4 6		
495.3	32.0						
495.0	32.3		Gray coarse to fine sand, trace coarse to fine gravel, dense, well graded, saturated SW	SS-17 32.0-34.0	28 100/ 1"	12.9 ○	Auger refusal at 32.5'.
494.8	32.5		Gray shale				
			End of Boring at 32.5'.				Borehole was tremie grouted immediately after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/23/92** ENDED **7/23/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **17.0' during drilling**
▽ **15.5' after drilling**
▽

PATRICK ENGINEERING INC.

BORING NUMBER CB-2 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,427.5 E 2,700.9

LOGGED BY KRR
GROUND ELEVATION 526.2

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL 10 20 30 40 50 / Unconfined Compressive Strength (TSF) ✳ 1 2 3 4 5	NOTES & TEST RESULTS
526.2	0.0		Brownish-gray silty clay, trace coarse to fine sand, medium stiff, medium plasticity, wet, fill CL	AU-1 0.0-2.0		21.1	
				SS-2 2.0-4.0 24"R	2 2 3 3	✳ 26.9	
522.2	4.0		Dark gray silty clay, trace to little fine sand and very soft to soft, medium plasticity, wet to saturated, fill CL	SS-3 4.0-6.0 24"R	1 1 2 2	✳ 31.6	
				3T-4 6.0-8.0 18"R		✳	
				SS-5 8.0-10.0 24"R	WOH WOH 1 2	✳ 28.8	
				SS-6 10.0-12.0 24"R	WOH 1 1 2	✳ 28.2	Water level at 10.0' during drilling.
			Trace organics at 13.0'.	SS-7 12.0-14.0 24"R	WOH 1 2 2	✳ 20.5	
			Wood fragments in SS-8	SS-8 14.0-16.0 24"R	WOH 1 2 2	✳ 42.5	
				3T-9 16.0-18.0 20"R		✳ ⊡ - - △ 37.8	3T-9: LL = 34 PL = 25 PI = 9 Dry dens. = 80pcf k = 2.4 E-07 cm/s
			Organics and wood traces at 18.3'	SS-10AB 18.0-20.0 24"R	WOH	✳ 38.3	
506.7	19.5		Gray and olive silty clay to clay, trace			✳ 29.3	

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 8/2/92 ENDED 8/2/92

REMARKS
WOH = Weight of Hammer

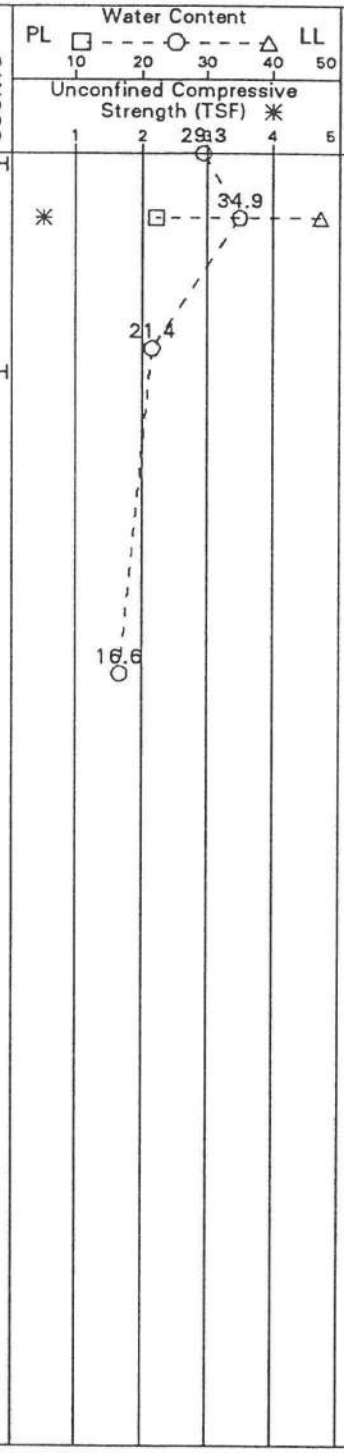
WATER LEVEL (ft.)
▽ 10.0' during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER CB-2 SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,427.5 E 2,700.9

LOGGED BY KRR
GROUND ELEVATION 526.2

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
506.2	20.0		fine sand, soft, medium to high plasticity, moist CL/CH	SS-11 20.0-22.0 24"R	WOH 1 1 2
503.7	22.5		Gray clayey fine sand, little silt, very loose, poorly graded, saturated SC	SS-12 22.0-24.0 24"R	2 1 1 WOH
501.7	24.5		Gray coarse to fine sand, trace fine gravel, trace to little silt, medium dense, poorly graded, saturated SP-SM/SM	SS-13 24.0-26.0 24"R	1 2 7 15
499.2	27.0		Gray silty clay to clay, trace fine sand, hard, medium to high plasticity, dry to moist CL	26.0-27.5 SS-14 27.5-29.5 24"R	3 8 22 32
496.7	29.5		End of Boring at 29.5'		



NOTES & TEST RESULTS

SS-11:
LL = 47
PL = 22
PI = 25

Blow-in at 24.0' water level rose to approximately 3' below ground surface.

Boring was tremie grouted using Volclay grout immediately after drilling completed.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 8/2/92 ENDED 8/2/92

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ 10.0' during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **CB-3** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,359.4 E 2,542.3**

LOGGED BY **KRR**
GROUND ELEVATION **525.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
525.8	0.0		Brown silty clay, trace coarse to fine sand, stiff, medium plasticity, wet, fill CL	AU-1 0.0-2.0		21.5	
				SS-2 2.0-4.0 20"R	2 2 3 4	✳ 22.7	
				SS-3 4.0-6.0 14"R	2 2 3 5	✳ 25.3	
519.8	6.0		Dark gray at 4.0'				
			Brown and tan clayey silt and fine sand, very loose, poorly graded, wet to saturated, fill CL-ML	SS-4 6.0-8.0 24"R	2 2 1 1	20.5	SS-4: Gravel = 0% Sand = 48% Silt or Clay = 52%
				SS-5 8.0-10.0 14"R	WOH 1 2 2	22.5	
515.5	10.3		Olive at 10.0'				
			Dark gray to black organic silty clay, trace coarse to fine sand, wood fragments present, soft, medium plasticity, wet OL	SS-6AB 10.0-12.0 18"R	2 2 2 3	24.9	
513.8	12.0					33.7	
			Gray clayey silt and fine sand, very loose, poorly graded, saturated CL-ML	SS-7 12.0-14.0 24"R	WOH WOH WOH WOH	23.3	
				SS-8AB 14.0-16.0 24"R	WOH 1 2 3	21.9	Water level at 14.0' during drilling.
			Gray silty sand from 15.0' to 15.5'			22.6	
				SS-9 16.0-18.0 24"R	WOH 1 1 1	27.	SS-9: Gravel = 0% Sand = 33% Silt or Clay = 67%
				SS-10 18.0-20.0 24"R	WOH WOH WOH WOH	23.5	
505.8	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/2/92** ENDED **8/2/92**

REMARKS
WOH = Weight of Hammer

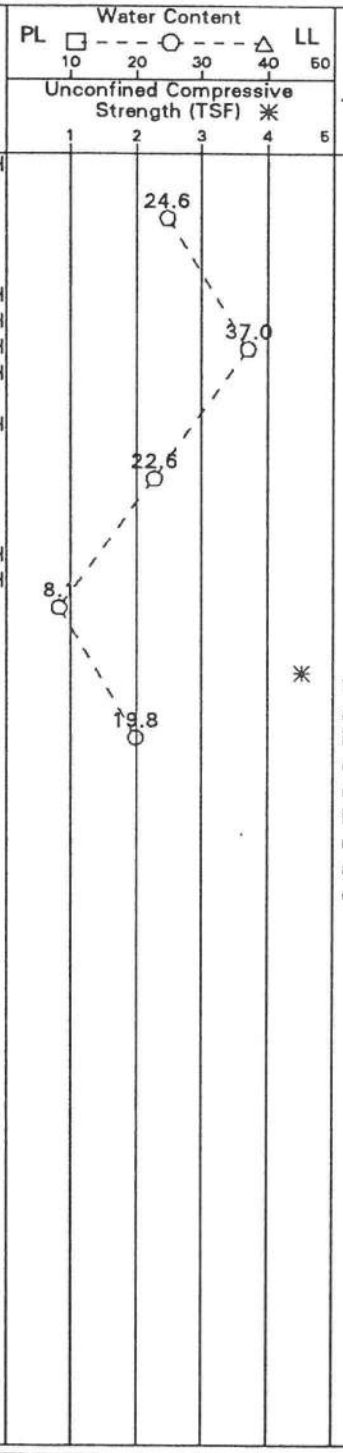
WATER LEVEL (ft.)
▽ **14.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **CB-3** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,359.4 E 2,542.3**

LOGGED BY **KRR**
GROUND ELEVATION **525.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
505.8	20.0		Gray clayey silt and fine sand, very loose, poorly graded, saturated CL-ML/SC	SS-11 20.0-22.0 24"R	WOH 1 1 2
				SS-12 22.0-24.0 24"R	WOH WOH WOH WOH
				SS-13 24.0-26.0 24"R	WOH 1 2 2
				SS-14 26.0-28.0 24"R	WOH WOH 12 21
498.8	27.0		Gray coarse to fine sand, trace coarse to fine gravel, trace to little silt, medium dense to dense, well graded, saturated SW-SM	SS-15 28.0-30.0 24"R	4 4 14 29
496.8	29.0		Gray silty clay to clay, trace fine sand, hard, medium to high plasticity, dry to moist CL/CH		
495.8	30.0		End of Boring at 30.0'.		



NOTES & TEST RESULTS

Water level in augers at 4.7' immediately after completion of drilling.
Boring was grouted using Volclay grout after drilling completed.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/2/92** ENDED **8/2/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **14.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER CB-4 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,240.9 E 2,490.4

LOGGED BY KRR
GROUND ELEVATION 525.1

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	NOTES & TEST RESULTS
525.1	0.0		Dark gray silty clay, trace coarse to fine sand, roots present, trace organics, stiff, medium plasticity, wet, fill CL	AU-1 0.0-2.0		
				SS-2 2.0-4.0 12"R	3 3 4 4	
521.1	4.0		Dark gray to black organic silty clay, trace fine sand, soft, medium to high plasticity, wet to saturated, fill OL/OH	SS-3 4.0-6.0 "R	1 2 3 4	
				SS-4 6.0-8.0 10"R	1 2 2 2	
			Wood fragments in SS-4			
			Wood fragments in SS-5	SS-5 8.0-10.0 4"R	WOH WOH WOH 2	SS-5 driven on wood.
			Wood fragments in SS-6A	SS-6AB 10.0-12.0 10"R	1 1 1 1	
513.3	11.8		Gray silty clay to clayey silt, trace fine sand, soft to medium stiff, low to medium plasticity, wet CL/CL-ML	SS-7 12.0-14.0 24"R	1 1 1 1	Sample slipped from tube. Obtained a jar sample.
				3T-8 14.0-16.0 10"R		
				3T-9 16.0-18.0 24"R		3T-9: LL = 25 PL = 22 PI = 3 Dry dens. = 103pcf k = 4.3 E-07 cm/s
				SS-10 18.0-20.0 24"R	WOH WOH WOH 2	
505.1	20.0		1" fine sand lense at 19.5'			

Water Content: PL □ - - - ○ - - - △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)

26.3
27.8
34.4
40.9
35.0
96.4
31.3
25.1
22.8
23.8
23.6
24.0

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 8/3/92 ENDED 8/3/92

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER **CB-4** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,240.9 E 2,490.4**

LOGGED BY **KRR**
GROUND ELEVATION **525.1**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
505.1	20.0		Gray silty clay to clayey silt, trace fine sand, soft, low to medium plasticity, wet. CL/CL-ML	SS-11 20.0-22.0 24"R	WOH WOH WOH 2	✳ ○ 23.9	Water was not encountered during drilling.
503.1	22.0		End of Boring at 22.0'.				Borehole was tremie grouted using Volclay grout immediately after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/3/92** ENDED **8/3/92**

REMARKS
WOH = Weight of Hammer

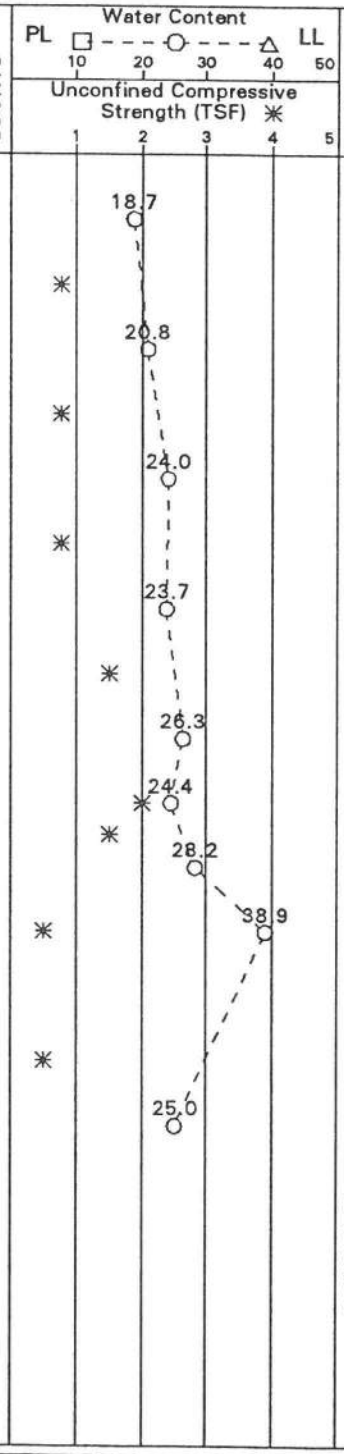
WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER CB-5 SHEET 1 OF 1
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,197.4 E 2,390.9

LOGGED BY KRR
GROUND ELEVATION 523.4

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
523.4	0.0		Brown and dark gray silty clay, trace coarse to fine sand, medium stiff, low plasticity, moist CL	AU-1 0.0-2.0	
				SS-2 2.0-4.0 10"R	3 3 3 4
520.4	3.0		Brown silty clay, trace fine sand, medium stiff, medium plasticity, wet CL	SS-3 4.0-6.0 20"R	2 2 2 3
				SS-4 6.0-8.0 24"R	2 2 2 3
515.6	7.8				
515.2	8.2		Brown silty sand, loose, poorly graded, saturated SM	SS-5AB 8.0-10.0 24"R	2 2 2 2
			Brown, gray and olive silty clay, trace fine sand, stiff, medium plasticity, wet CL	SS-6AB 10.0-12.0 24"R	2 3 2 3
512.4	11.0		Gray and olive silty clay, trace fine sand, stiff, medium to high plasticity, wet CL/CH	3T-7 12.0-14.0 24"R	
511.4	12.0		Gray silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-8 14.0-16.0 24"R	1 2 2 2
507.4	16.0		End of Boring at 16.0'.		



NOTES & TEST RESULTS

Water level at 8.0' during drilling.

Borehole was tremie grouted using Volclay grout immediately after drilling completed.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 8/3/92 ENDED 8/3/92

REMARKS

WATER LEVEL (ft.)
▽ 8.0' during drilling.
▽ ~~No water level after drilling.~~
▽

PATRICK ENGINEERING INC.

BORING NUMBER **CB-6** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,079.8 E 2,367.5**

LOGGED BY **KRR**
GROUND ELEVATION **527.0**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
527.0	0.0		Dark gray silty clay, trace coarse to fine sand, roots present, low plasticity, moist	AU-1 0.0-2.0		16.7 ○	
526.0	1.0		CL				
			Brown and dark gray silty clay, trace coarse to fine sand, very stiff, medium plasticity, wet to saturated	SS-2 2.0-4.0 18"R	4 5 6 5	18.4 ○ ✳	
			CL				
			Dark gray and trace organics from 4.0'	SS-3 4.0-6.0 20"R	6 4 5 7	22.5 ○ ✳	
				SS-4 6.0-8.0 8"R	3 2 4 4	34.0 ○	
518.8	8.2						
			Gray coarse to fine sand, trace fine gravel, little silt, trace coal, very loose, well graded, saturated	SS-5AB 8.0-10.0 18"R	2 1 1 1	✳ 24.4 ○	Water level at 8.0' during drilling
518.0	9.0		SM				
			Gray to light gray silty clay, trace fine sand, soft to medium stiff, medium plasticity, wet	SS-6 10.0-12.0 24"R	WOH 1 1 1	✳ 25.0 ○	
			CL				
			Trace organics and little fine sand in SS-5B	3T-7 12.0-14.0 24"R		✳ 26.4 ○	3T-7: dry dens. = 99pcf qu = 1.4 tsf k = 5.3 E-7 cm/s
				SS-8 14.0-16.0 24"R	WOH 1 1 2	✳ 27.0 ○	
				SS-9 16.0-18.0 24"R	WOH 1 1 1	✳ 25.1 ○	
				SS-10 18.0-20.0 24"R	1 1 1 1	✳ 27.0 ○	
507.0	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/25/92** ENDED **7/25/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **8.0'** during drilling
▽
▽

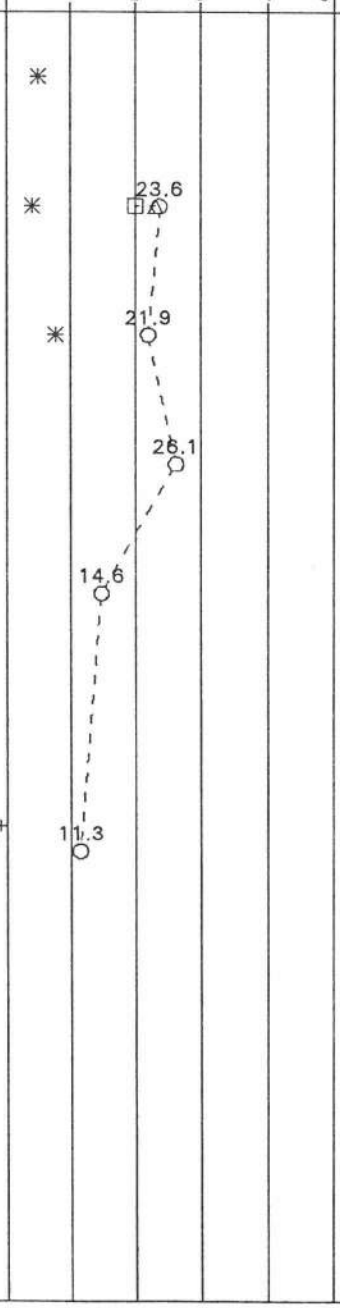
PATRICK ENGINEERING INC.

BORING NUMBER CB-6 SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 5,079.8 E 2,367.5

LOGGED BY KRR
GROUND ELEVATION 527.0

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
507.0	20.0		Gray silty clay, trace coarse to fine sand, soft, medium plasticity, wet CL	3T-11 20.0-22.0 24"R	
505.5	21.5		Gray silty clay to clayey silt, trace to little fine sand, soft, low plasticity, wet CL/CL-ML	SS-12 22.0-24.0 24"R	1 1 1 1
				SS-13 24.0-26.0 24"R	1 1 1 2
501.0	26.0		Gray clayey sand, some silt, very loose, poorly graded, saturated SC	SS-14 26.0-28.0 24"R	1 1 1 1
499.0	28.0		Gray fine sand, some silt, loose, poorly graded, saturated SM	SS-15 28.0-30.0 24"R	2 3 4 4
497.8	29.2		Gray coarse to fine sand, little fine gravel, little sand, loose, poorly graded, saturated SM		
497.0	30.0			SS-16 30.0-32.0 24"R	6 6 8 8
496.3	30.7		Gray fine sand, trace coarse to medium sand, trace silt, medium dense, poorly graded, saturated SP		
494.5	32.5		Gray coarse to fine sand, little fine gravel, trace silt, medium dense, well graded, saturated SW-SM	SS-17 32.0-34.0 8"R	13 100+ /2"
493.0	34.0		Gray shale		
			End of Boring at 34.0'.		

Water Content: PL □ ---○--- △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)



NOTES & TEST RESULTS

SS-12:
LL = 23
PL = 20
PI = 3

SS-14:
Gravel = 0%
Sand = 62%
Silt or clay = 38%

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 7/25/92 ENDED 7/25/92

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ 8.0' during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER CB-7 SHEET 1 OF 1
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 4,938.0 E 2,377.9

LOGGED BY KRR
GROUND ELEVATION 523.8

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
523.8	0.0		Brown silty clay, trace fine sand, soft, medium plasticity, wet CL	AU-1 0.0-2.0		22.2	
				SS-2 2.0-4.0 10"R	2 3 3 2	✳ 28.8	
			Mottled and tan from 4.0'	SS-3 4.0-6.0 12"R	1 2 3 4	✳ 25.6	
				SS-4 6.0-8.0 20"R	2 2 3 3	✳ 25.1	
515.0	8.8		Gray silty clay, trace coarse to fine sand, stiff, medium plasticity, wet CL	SS-5 8.0-10.0 24"R	WOH 2 3 2	✳ ✳ 23.6	
			Trace fine sand only from 10.0'	3T-6 10.0-12.0 20"R		✳	
				SS-7 12.0-14.0 24"R	WOH 1 2 2	✳ 25.9	
				SS-8 14.0-16.0 24"R	1 1 2 2	✳ 26.4	
507.8	16.0		End of Boring at 16.0'				Water was not encountered during or immediately after drilling. Borehole was tremie grouted using Volcaly grout immediately after drilling.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA
DRILLING EQUIPMENT CME 55/ATV
DRILLING STARTED 8/13/92 ENDED 8/13/92

REMARKS
WOH = Weight of Hammer

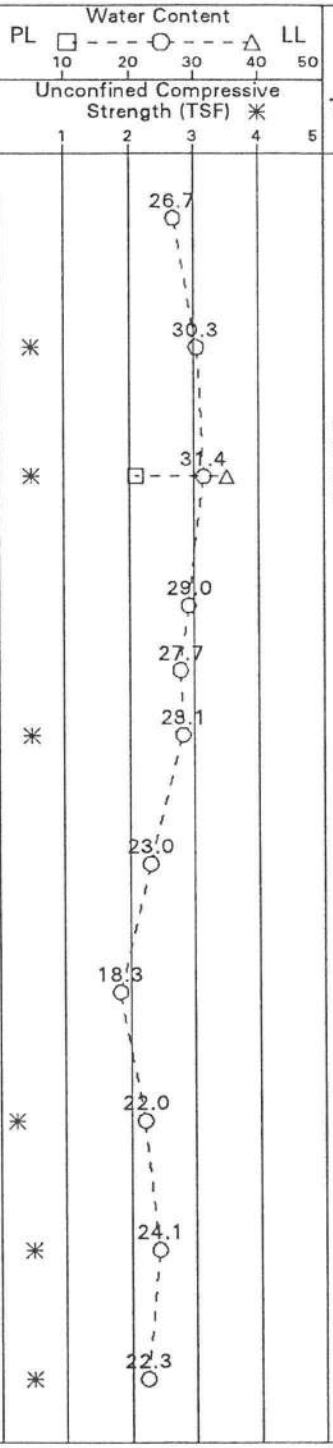
WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER CB-8 SHEET 1 OF 1
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,862.3 E 2,564.6

LOGGED BY KRR
GROUND ELEVATION 522.7

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
522.7	0.0		Dark gray to black silty organic clay to clay, trace fine sand, soft, medium to high plasticity, wet to saturated, fill OL/OH	AU-1 0.0-2.0	
				SS-2 2.0-4.0 4"R	2 2 3 3
				SS-3 4.0-6.0 10"R	1 2 2 1
			Trace wood fragments in SS-4.	SS-4 6.0-8.0 4"R	1 1 1 2
				SS-5AB 8.0-10.0 20"R	1 1 1 2
			Trace wood fragements in SS-5B.		
512.9	9.8		Gray clayey fine sand, trace coarse to medium sand, little silt, very loose, poorly graded, moist SC	SS-6 10.0-12.0 8"R	WOH 1 1 1
510.7	12.0		Gray silty fine sand, very loose, poorly graded, moist SM	SS-7 12.0-14.0 20"R	1 1 1 2
508.9	13.8		Gray silty clay to clayey silt, trace coarse to fine sand, soft, medium plasticity, wet CL/CL-ML	SS-8 14.0-16.0 20"R	1 1 1 2
				SS-9 16.0-18.0 22"R	1 1 2 2
				SS-10 18.0-20.0 20"R	
502.7	20.0		End of Boring at 20.0'		



NOTES & TEST RESULTS
SS-3: LL = 35 PL = 21 PI = 14
Tube pushed at 18.0' but no recovery. Then pushed split spoon. No water during drilling. W.L immediately after completion of drilling. Borehole was grouted using volclay grout immediately after drilling.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA
DRILLING EQUIPMENT CME 55/ATV
DRILLING STARTED 8/12/92 ENDED 8/12/92

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER CB-9 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,799.8 E 2,736.2

LOGGED BY KRR
GROUND ELEVATION 525.5

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
525.5	0.0		Brown and dark gray silty clay, trace coarse to fine sand, roots and wood fragments present, very stiff, medium plasticity, wet, fill	AU-1 0.0-2.0		23.6	
			CL	SS-2 2.0-4.0 14"R	7 8 11 12	22.1 ✳	
520.7	4.8		Dark gray to black organic silty clay, trace fine sand, wood fragments present, soft to medium stiff, medium plasticity, wet, fill.	SS-3 4.0-6.0 6"R	4 3 2 3	✳ 29.9	SS-3: CEC = 18.1 meq/100g
			OL	SS-4 6.0-8.0 6"R	2 3 3 4	✳ 30.7	
				SS-5 8.0-10.0 10"R	1 2 2 2	✳ 34.2	
				SS-6AB 10.0-12.0 20"R	1 1 1 1	29.2 ✳ 20.2	
513.9	11.6						
513.5	12.0		Gray fine sand, trace coarse to medium sand, little silt, trace shells, very loose, poorly graded, fill	SS-7 12.0-14.0 24"R	WOH 1 2 2	✳ 29.9	
			SM				
511.3	14.2		Dark gray organic silty clay, trace fine sand, wood fragments present, soft, medium plasticity, wet, saturated, fill	SS-8 14.0-16.0 18"R	WOH 1 1 1	30.3	Water level at 14.0' during drilling.
			SC				
			Gray clayey fine sand, little silt, very loose, poorly graded, saturated, fill				
509.3	16.2		SC				
			Gray silty clay, trace to little fine sand, soft, medium plasticity, wet	SS-9 16.0-18.0 20"R	WOH WOH 1 1	✳ 26.0	
			CL	SS-10 18.0-20.0 22"R	WOH 1 2 2	25.2	

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA
DRILLING EQUIPMENT CME 55-ATV
DRILLING STARTED 8/13/92 ENDED 8/13/92

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ 14.0' during drilling.
▼ 5.0' after drilling.

PATRICK ENGINEERING INC.

BORING NUMBER **CB-9** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,799.8 E 2,736.2**

LOGGED BY **KRR**
GROUND ELEVATION **525.5**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
505.5	20.0		Gray silty clay, trace to little fine sand, medium stiff, medium plasticity, wet CL	3T-11 20.0-22.0 24"R		✳	
503.5	22.0		Gray silty fine sand, loose, poorly graded, saturated SM	SS-12 22.0-24.0 24"R	3 2 2 2		
501.0	24.5		Gray coarse to fine sand, trace fine gravel, trace to little silt, loose, poorly graded, saturated SP-SM/SM	SS-13 24.0-26.0 24"R	1 1 3 4	21.8 ○	Blow-in at 26.0'
499.5	26.0		End of Boring at 26.0'				Water level at 5.0' immediately after drilling.
							Borehole was tremie grouted using Volclay grout immediately after completion of drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55-ATV**
DRILLING STARTED **8/13/92** ENDED **8/13/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **14.0'** during drilling
▼ **5.0'** after drilling
▼

PATRICK ENGINEERING INC.

BORING NUMBER P-1D SHEET 1 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 4,806.1 E 1,973.1

LOGGED BY KRR
GROUND ELEVATION 553.4

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
553.4	0.0		Brown and dark gray silty clay, some coarse to fine sand, trace fine gravel, very stiff, medium plasticity, moist to wet, fill CL	AU-1 0.0-2.0	
			Trace coarse to fine sand from 2.0' Trace roots in SS-2	SS-2 2.0-4.0 14"R	1 2 3 5
			Light olive at 4.0'	SS-3 4.0-6.0 16"R	2 4 6 10
546.9	6.5		Dark gray to black organic silty clay, trace coarse to fine sand, very stiff, medium plasticity, moist to wet, fill OL	SS-4ABC 6.0-8.0 18"R	4 4 9 10
				SS-5 8.0-10.0 20"R	3 6 4 6
			Mottled at 11.0'	SS-6 10.0-12.0 20"R	3 3 5 6
541.4	12.0		Dark gray to black organic clay to silty clay, trace wood fragments and coal, trace fine sand, very stiff, medium plasticity, wet, fill OL	SS-7 12.0-14.0 24"R	2 3 5 6
				SS-8 14.0-16.0 24"R	3 3 5 6
				SS-9 16.0-18.0 19"R	4 5 8 8
535.2	18.2		Brown silty clay, trace coarse to fine sand, trace fine gravel, stiff, medium plasticity, wet, fill CL	SS-10ABC 18.0-20.0 24"R	1 2 4 5
534.4	19.0				
533.4	20.0				

Water Content: PL □ - - - ○ - - - △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)

14.7, 19.4, 20.5, 21.6, 22.7, 20.4, 25.3, 26.1, 22.3, 23.8, 22.7, 22.0, 23.7

NOTES & TEST RESULTS
SS-5: LL = 46 PL = 20 PI = 26

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 7/20/92 ENDED 7/20/92

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ 39.0' during driling
▽ 38.0' after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-1D** SHEET **2** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,806.1 E 1,973.1**

LOGGED BY **KRR**
GROUND ELEVATION **553.4**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
533.4	20.0		Dark gray organic silty clay, trace wood and coal fragments, stiff, medium plasticity, wet OL	SS-11 20.0-22.0 24"R	2 7 7 9	20.7	
			Dark gray to black organic silty clay, trace fine sand, trace wood fragments and coal, stiff, medium plasticity, wet, fill OL	SS-12 22.0-24.0 24"R	2 6 7 9	22.0	
			Brownish-gray, olive and black from 23.0'-23.5' and 24.0'-25.0'	SS-13AB 24.0-26.0 24"R	3 3 6 7	20.9 26.4	
			Changed to dark gray and black from 25.0'	SS-14AB 26.0-28.0 24"R	4 5 8 8	31.6 35.7	
526.4	27.0		Trace wood fragments in SS-14A				
525.4	28.0		Black to dark gray organic silty clay to clayey silt, trace to little fine sand, medium dense, moist, fill OL/CL-ML	SS-15 28.0-30.0 2"R	1 2 3 3	72.8	Disturbed sample.
			Black to dark gray organic clay to silty clay, roots present, trace fine sand, medium stiff, medium to high plasticity, wet, fill OL/OH	SS-16 30.0-32.0 24"R	2 2 2 2	30.1	
				3T-17 32.0-34.0 24"R			
			Wood fragments in SS-18	SS-18 34.0-36.0 24"R	1 3 3 3	35.4	
			Wood fragments in SS-19	SS-19 36.0-38.0 24"R	1 2 3 3	25.8 22.4	
514.9	38.5			SS-20 38.0-40.0 24"R	2 2 2 3	31.2 22.4	Water level at 39.0' during drilling.
513.9	39.5		Brownish-gray and olive clayey sand, trace fine gravel, loose, well graded, saturated SC				
513.4	40.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/20/92** ENDED **7/20/92**

REMARKS
WOH = Weight of Hammer

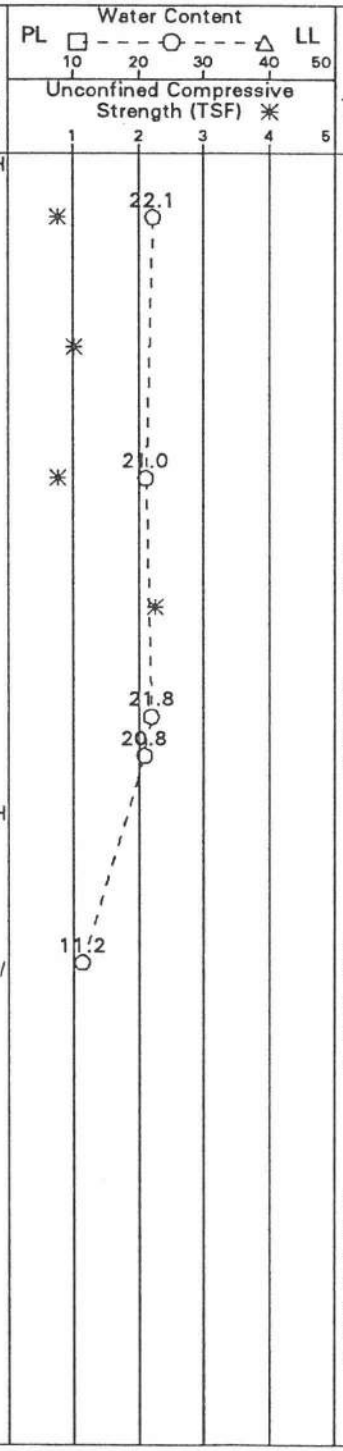
WATER LEVEL (ft.)
▽ **39.0'** during driling
▼ **38.0'** after drilling

PATRICK ENGINEERING INC.

BORING NUMBER **P-1D** SHEET **3** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,806.1 E 1,973.1**

LOGGED BY **KRR**
GROUND ELEVATION **553.4**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
513.4	40.0		Gray silty clay, trace fine sand, medium stiff, medium plasticity, wet CL	SS-21 40.0-42.0 24"R	WOH 1 2 2
			Gray silty clay, trace fine sand, medium stiff, medium plasticity, wet CL	SS-22 42.0-44.0 24"R	2 3 4 4
			Gray and olive from 42.0'	SS-23 44.0-46.0 24"R	2 2 2 2
			Little fine sand in 3T-24	3T-24 46.0-48.0 24"R	
504.4	49.0		Gray clayey fine sand, little silt, loose, poorly graded, saturated SC	SS-25AB 48.0-50.0 24"R	1 1 3 4
502.6	50.8			SS-26AB 50.0-52.0 24"R	WOH 2 2 1
501.9	51.5		Gray fine sand, some silt, trace coarse to medium sand, trace coarse to fine gravel, very loose, poorly graded, saturated. SM	SS-27 52.0-52.5 7"R	41 120/ 1"
501.4	52.0				
500.9	52.5		Gray coarse to fine sand, trace silt, very loose, poorly graded, saturated SP		
			Gray Shale		
			End of Boring at 52.5'.		



NOTES & TEST RESULTS

Ceased drilling on 07/20/92.

Resumed drilling on 07/21/92.

SS-25B:
Gravel = 0%
Sand = 64%
Silt or clay = 36%

Auger refusal at 52.5'.

Water level at 38.0' immediately after drilling.

Piezometer was installed after completion of drilling. See as-built diagram P-6D for more details.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/20/92** ENDED **7/20/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **39.0'** during driling
▽ **38.0'** after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-1S** SHEET **1** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,821.3 E 1,973.9**

LOGGED BY **KRR**
GROUND ELEVATION **553.4**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
553.4	0.0		Drilled to 36.0' without sampling (See Boring Log P-1D for soil conditions from 0' to 36')				

DRILLING CONTRACTOR **Patrick Drillling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/21/92** ENDED **7/21/92**

REMARKS

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-1S** SHEET **2** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,821.3 E 1,973.9**

LOGGED BY **KRR**
GROUND ELEVATION **553.4**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
533.4	20.0		Drilled to 36.0' without sampling (See Boring Loag P-1D for soil conditions from 0' to 36')				
517.4	36.0		Black to dark gray organic silty clay, trace wood fragments, trace coarse to fine sand, stiff, medium plasticity, wet, fill	SS-1 36.0-38.0 20"R	2 3 3 5	✳ ○ 32.2	Water in SS-2A
515.4	38.0		OL				SS-2A: Gravel = 2% Sand = 65% Silt or clay = 33%
514.7	38.7		Gray clayey fine sand, little silt, trace coarse to medium sand, loose, poorly graded, saturated	SS-2AB 38.0-40.0 24"R	2 1 2 2	○ 18.7 ✳ ○ 23.5	
			SC				

DRILLING CONTRACTOR **Patrick Drillling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/21/92** ENDED **7/21/92**

REMARKS

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER P-1S SHEET 3 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 4,821.3 E 1,973.9

LOGGED BY KRR
GROUND ELEVATION 553.4

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
513.4	40.0		Gray silty clay, trace fine sand, medium stiff to stiff, medium plasticity, wet CL	SS-3 40.0-42.0 24"R	3 3 4 5	✳ 22.6 ○	No water immediately after drilling.
511.4	42.0		End of Boring at 42.0'.				Piezometer P-1S was installed after completion of drilling. Refer to as-built diagram P-1S for details.

DRILLING CONTRACTOR Patrick Drillling
DRILLING METHOD 4-1/4" I.D. HSA
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 7/21/92 ENDED 7/21/92

REMARKS

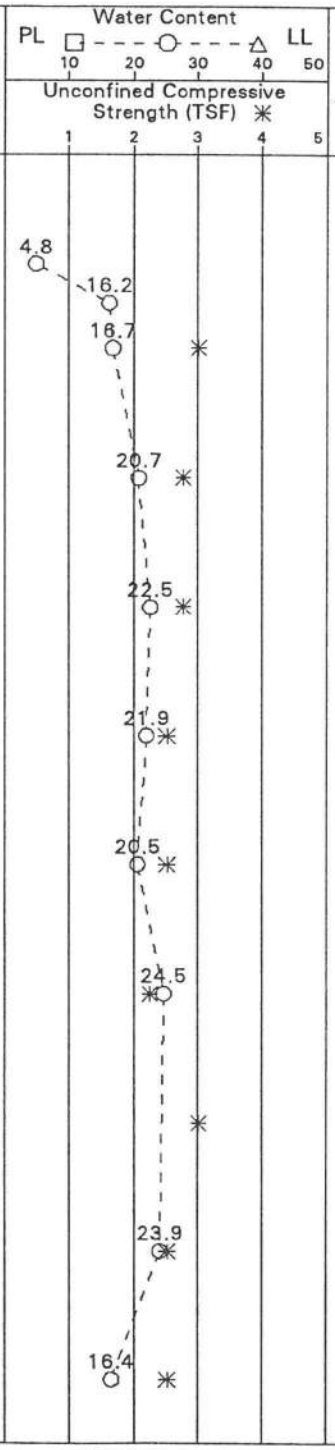
WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-2D SHEET 1 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 5,256.0 E 1,975.9

LOGGED BY KRR
GROUND ELEVATION 553.9

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
553.9	0.0		Brown coarse to fine sand, some silt, well graded, dry, fill	AU-1AB 0.0-2.0	
552.9	1.0		SM		
			Dark gray to black silty clay, trace fine sand, trace organics, very stiff, low plasticity, moist, fill	SS-2 2.0-4.0 10"R	5 7 9 9
			CL		
549.9	4.0		Mottled brown silty clay, trace coarse to fine sand, trace fine gravel, very stiff, medium plasticity, wet, fill	SS-3 4.0-6.0 12"R	3 4 4 6
			CL		
				SS-4 6.0-8.0 16"R	4 5 8 10
545.9	8.0		Dark gray silty clay, trace organics, trace coarse to fine sand, very stiff, medium plasticity, wet, fill	SS-5 8.0-10.0 14"R	2 4 6 7
			OL		
543.9	10.0		Brown and dark gray silty clay, trace coarse to fine sand, very stiff, medium plasticity, wet, fill	SS-6 10.0-12.0 14"R	3 4 6 7
			CL		
			Brown and gray at 12.0'	SS-7 12.0-14.0 20"R	2 4 4 7
			Mottled brown from 14.0'	3T-8 14.0-16.0 20"R	
				SS-9 16.0-18.0 22"R	4 6 9 10
				SS-10 18.0-20.0 22"R	2 3 6 6
			Dark brown from 19.0'		
533.9	20.0				



NOTES & TEST RESULTS

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/22/92** ENDED **7/22/92**

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ **28.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-2D SHEET 2 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 5,256.0 E 1,975.9

LOGGED BY KRR
GROUND ELEVATION 553.9

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
533.9	20.0		Dark brown silty clay, trace to little fine sand, very stiff, medium plasticity, wet, fill	SS-11 20.0-22.0 22"R	6 5 7 8
532.9	21.0		CL		
			Dark gray silty clay, trace fine sand, trace wood fragments and roots, very stiff, medium plasticity, wet, fill	SS-12 22.0-24.0 24"R	2 3 3 5
530.7	23.2		CL/OL		
			Changed to brownish-gray and olive at 22.0'		
			Dark brown silty clay, trace coarse to fine sand, soft to stiff, medium plasticity, wet, fill	SS-13 24.0-26.0 24"R	2 2 2 3
			CL		
			Mottled from 25.0'	SS-14 26.0-28.0 24"R	2 3 4 3
				3T-15 28.0-30.0 24"R	
				SS-16 30.0-32.0 24"R	WOH 1 1 1
			Mucky at 32.0'	SS-17 32.0-34.0 24"R	1 2 2 2
				SS-18 34.0-36.0 24"R	1 2 2 2
				SS-19ABC 36.0-38.0 24"R	2 2 3 4
516.9	37.0				
516.4	37.5		Brown clayey fine sand, some silt, loose, poorly graded, saturated		
			SC		
			Dark gray silty clay, trace coarse to fine sand, trace fine gravel, trace shells, very stiff, medium plasticity, wet	SS-20 38.0-40.0 24"R	2 2 3 6
513.9	40.0		CL		

Water Content: PL □ - - - ○ - - - △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)

19.9 22.7 23.5 26.4 26.6 25.9 27.6 25.6 24.9 24.0 22.5 27.3 18.1

NOTES & TEST RESULTS
3T-15: Dry Dens = 99.1 pcf k = 7.3E-07 cm/s

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/22/92** ENDED **7/22/92**

REMARKS
WOH - Weight of Hammer.

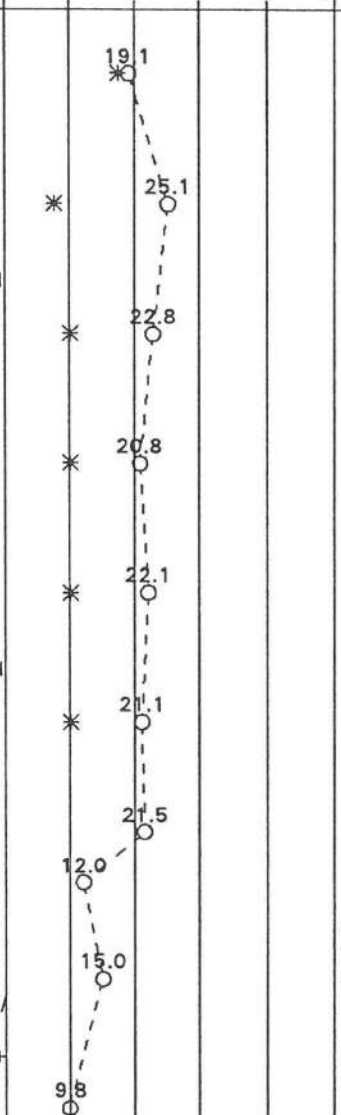
WATER LEVEL (ft.)
▽ **28.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-2D** SHEET **3** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,226.0 E 1,975.9**

LOGGED BY **KRR**
GROUND ELEVATION **553.9**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
513.9	40.0		Dark gray to gray silty clay, trace fine sand, medium to stiff, medium plasticity, wet CL	SS-21 40.0-42.0 24"R	2 4 4 5
				SS-22 42.0-44.0 24"R	2 2 2 3
			Pockets of sand at 43.6' Light gray and olive from 44.0'	SS-23 44.0-46.0 24"R	WOH 1 3 3
				SS-24 46.0-48.0 24"R	2 1 4 4
			Little fine sand in SS-25 1" fine sand lense at 48.5	SS-25 48.0-50.0 24"R	1 2 2 2
				SS-26 50.0-52.0 24"R	WOH
			Gray and little to some fine sand from 51.0'	SS-27AB 52.0-54.0 24"R	5 8 8 8
500.9	53.0		Gray clayey coarse to fine sand, little silt, medium dense, well graded, saturated SC		
499.9	54.0			SS-28ABC 54.0-56.0 20"R	4 7 40 18+/ 2"
499.4	54.5		Gray coarse to fine sand, trace silt, medium dense, well graded, saturated SW		
498.9	55.0				
498.1	55.8		Gray coarse to fine sand, trace silt, medium dense, poorly graded, saturated SP/SP-SM		
497.4	56.5			SS-29 56.0-57.3 6"R	100+
			Gray clayey coarse to fine sand, little silt, trace coarse to fine gravel, dense, well graded, saturated SC		
			Gray siltstone/shale		
			End of Boring at 56.5'.		



NOTES & TEST RESULTS

SS-28A:
Gravel = 3%
Sand = 91%
Silt or clay = 6%

Piezometer P-2D was installed after completion of drilling. Refer to as-built diagram P-2D for more details.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/22/92** ENDED **7/22/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **28.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-2S** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,237.1 E 1,976.3**

LOGGED BY **KRR**
GROUND ELEVATION **533.9**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL 10 20 30 40 50 / Unconfined Compressive Strength (TSF) ✳ 1 2 3 4 5	NOTES & TEST RESULTS
533.9	0.0		Drilled to 26.0' without sampling. See Boring Log P-2D for details on soils encountered from 0' to 26'				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/22/92** ENDED **7/22/92**

REMARKS

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-2S** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,237.1 E 1,976.3**

LOGGED BY **KRR**
GROUND ELEVATION **533.9**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
513.9	20.0		Drilled to 26.0' without sampling. See Boring Log P-2d for details on soils encountered from 0' to 26'				
507.9	26.0		Brown silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-1 26.0-28.0 24"R	3 3 4 5	✳	25.9 ○
				SS-2 28.0-30.0 24"R	1 1 2 3	✳	27.0 ○ — Piezometer P-2S was installed immediately after completion of drilling. Refer to as-built diagram P-2S for more details.
503.9	30.0		End of Boring at 30.0'.				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/22/92** ENDED **7/22/92**

REMARKS

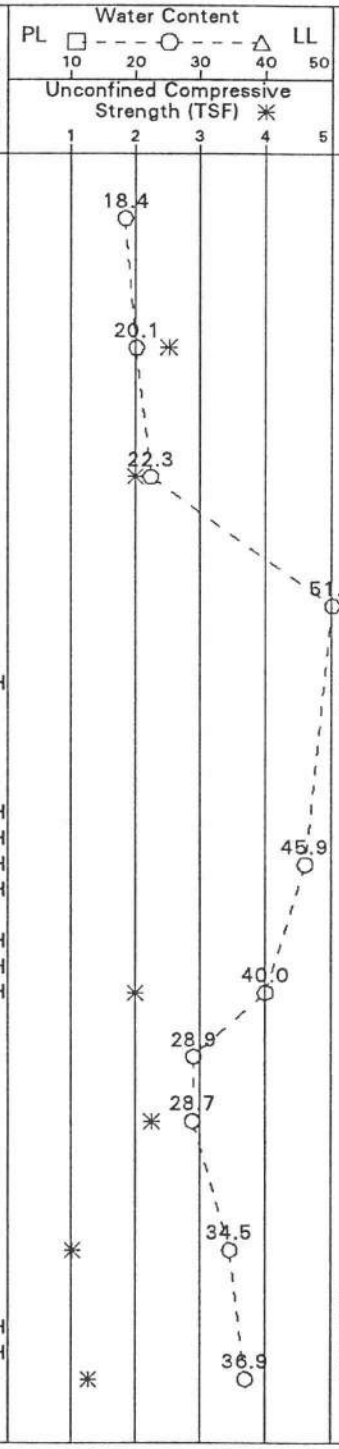
WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-3D SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 5,672.5 E 2,645.4

LOGGED BY KRR
GROUND ELEVATION 530.5

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
530.5	0.0		Brownish gray silty clay, trace coarse to fine sand, very stiff, low plasticity, moist, fill CL	AU-1 0.0-2.0	
			Dark gray and brown at 3.0', trace fine gravel and coal in SS-2	SS-2 2.0-4.0 20"R	4 5 5 7
			Trace coal and organics in SS-3	SS-3 4.0-6.0 14"R	3 4 4 5
524.0	6.5		Dark gray to black clayey sand to silty sand, trace organics, loose, poorly graded, saturated, fill SC/SM	SS-4 6.0-8.0 8"R	2 2 3 3
				SS-5 8.0-10.0 0"R	WOH 1 1 1
				SS-6 10.0-12.0 6"R	WOH WOH WOH WOH
518.5	12.0		Dark gray organic silty clay, trace fine sand, wood fragments present, medium to high plasticity, wet to saturated, fill OL	SS-7AB 12.0-14.0 24"R	WOH WOH WOH 3
517.0	13.5		Brown to brownish gray silty clay, trace coarse to fine sand, stiff to very stiff, medium to high plasticity, wet CL	SS-8 14.0-16.0 24"R	2 3 3 4
				3T-9 16.0-18.0 20"R	
				SS-10 18.0-20.0 24"R	WOH WOH 2 2
510.5	20.0				



NOTES & TEST RESULTS

Water level at 8.0' while drilling.

3T-9:
Dry dens = 89.2 pcf
k = 1.3E-08 cm/s

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/17/92** ENDED **8/17/92**

REMARKS
WOH - Weight of Hammer.

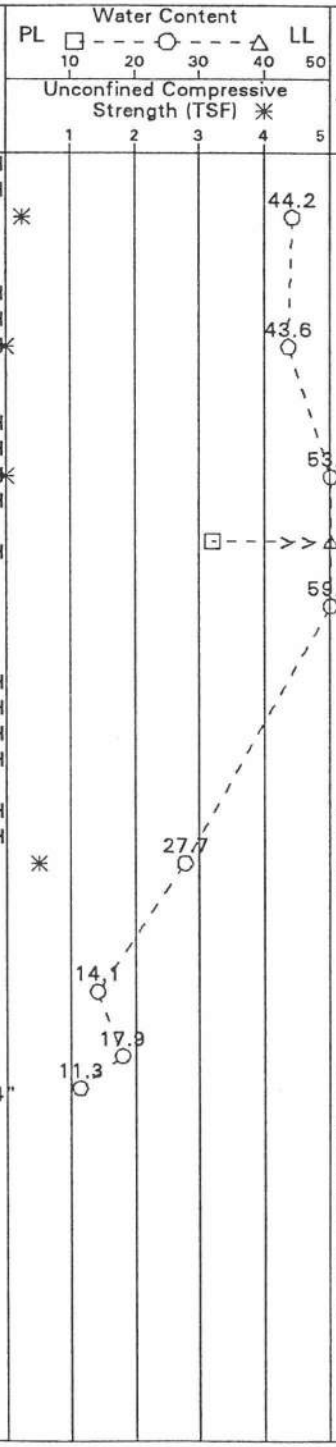
WATER LEVEL (ft.)
▽ **8.0'** during drilling
▽ **14.0'** after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-3D SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 5,672.5 E 2,645.4

LOGGED BY KRR
GROUND ELEVATION 530.5

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
510.5	20.0		Brownish-gray silty clay, trace coarse to fine sand, stiff, medium plasticity, wet	SS-11 20.0-22.0 24"R	WOH WOH 2 2
509.5	21.0		CL		
			Gray clay to silty clay, trace fine sand, very soft to soft, mucky, medium to high plasticity, wet to saturated	SS-12 22.0-24.0 24"R	WOH WOH WOH 1
			CH	SS-13 24.0-26.0 24"R	WOH WOH WOH WOH
				SS-14 26.0-28.0 24"R	WOH 1 1 1
502.5	28.0		Gray silty fine sand, very loose, poorly graded, saturated	SS-15 28.0-30.0 24"R	WOH WOH WOH WOH
			SM		
500.5	30.0		Gray silty clay to clayey silt, little fine sand, soft, low to medium plasticity, wet	SS-16 30.0-32.0 24"R	WOH WOH 1 1
			CL/CL-ML		
498.5	32.0		Gray fine sand, little silt, very loose, poorly graded, saturated	SS-17AB 32.0-34.0 24"R	1 1 7 10
497.5	33.0		SM		
497.0	33.5		Gray coarse to fine sand and silt, trace coarse to fine gravel, medium dense, well graded, saturated	SS-18 34.0-35.0 10"R	42 100/4"
			SM		
495.5	35.0		Gray shale		
			End of Boring at 35.0'		



NOTES & TEST RESULTS

SS-13:
LL = 71
PL = 32
PI = 39

SS-17B:
Gravel = 0%
Sand = 58%
Silt or Clay = 42%

Water level at 14.0' immediately after drilling. Piezometer was installed immediatley after drilling. Refer to As-Built Diagram P-3D for more details.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/17/92** ENDED **8/17/92**

REMARKS
WOH - Weight of Hammer.

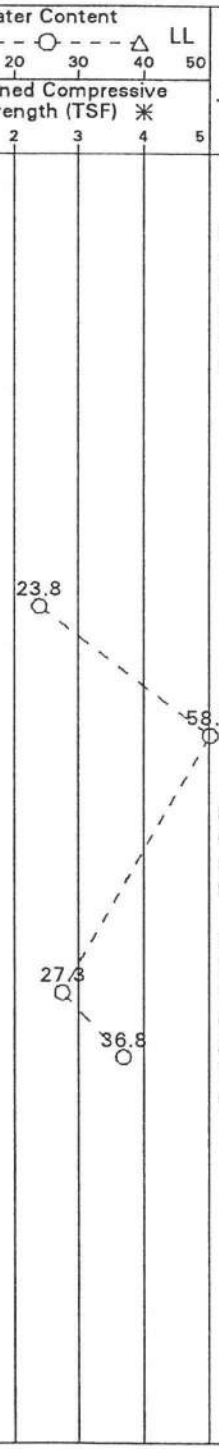
WATER LEVEL (ft.)
▽ **8.0'** during drilling
▼ **14.0'** after drilling

PATRICK ENGINEERING INC.

BORING NUMBER P-3S SHEET 1 OF 1
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 5,672.5 E 2,651.4

LOGGED BY KRR
GROUND ELEVATION 530.5

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
530.5	0.0		Drilled without sampling to 6.0'. Refer to Boring Log P-3D for soil conditions from 0' to 6'.		
524.5	6.0		Brown and dark gray silty clay, trace coarse to fine sand, trace fine gravel, trace coal, trace organics, soft, medium plasticity, wet CL/OL	SS-1 6.0-8.0 14"R	2 2 2 3
522.5	8.0		Dark gray to black silty sand, trace organics, wood fragments present, very loose, poorly graded, saturated SM	SS-2 8.0-10.0 24"R	WOH 1 1 1
				SS-3 10.0-12.0 24"R	WOH WOH WOH WOH
518.5	12.0		Gray and olive silty clay, trace to fine sand, trace organics, soft, medium plasticity, wet CL	SS-4AB 12.0-14.0 24"R	WOH 1 2 3
517.5	13.0				
516.5	14.0		Brown silty clay, trace to fine sand, stiff, medium plasticity, wet to saturated CL		
			End of Boring at 14.0'		



NOTES & TEST RESULTS

Soil conditions were consistent with soil conditions encountered in P-3D based on soil cuttings.

SS-3:
Gravel = 0%
Sand = 55%
Silt or Clay = 45%

Piezometer was installed immediately after drilling. Refer to As-Built Diagram P-3S for more details.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/17/92** ENDED **8/17/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER P-4 SHEET 1 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,156.3 E 2,880.7

LOGGED BY KRR
GROUND ELEVATION 535.9

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL 10 20 30 40 50; Unconfined Compressive Strength (TSF) ✳ 1 2 3 4 5	NOTES & TEST RESULTS
535.9	0.0		Brown silty clay, trace coarse to fine sand, stiff to very stiff, medium plasticity, wet CL	AU-1 0.0-2.0		25.3	
				SS-2 2.0-4.0 24"R	3 4 5 5	✳ 24.6	
			Mottled from 4.0'	SS-3 4.0-6.0 20"R	2 2 3 4	✳ 29.6	
				3T-4 6.0-8.0 24"R		✳	
				SS-5 8.0-10.0 24"R	3 3 4 8	20.5	
			Brownish gray at 10.0'	SS-6 10.0-12.0 24"R	3 4 6 10	26.5	
				SS-7 12.0-14.0 24"R	4 4 6 8	25.0 ✳	
				3T-8 14.0-16.0 24"R		✳	
519.9	16.0		Gray clay to silty clay, trace fine sand, very soft to stiff, medium to high plasticity, wet to saturated CH/CL	SS-9 16.0-18.0 24"R	4 4 5 7	✳ 33.9	
				SS-10 18.0-20.0 24"R	1 2 2 3	✳ 40.2	

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/16/92** ENDED **8/16/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **34.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-4 SHEET 2 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 5,156.3 E 2,880.7

LOGGED BY KRR
GROUND ELEVATION 535.9

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
515.9	20.0		Gray clay, trace silt, mucky, very soft, high plasticity, moist to wet CH	3T-11 20.0-22.0 24"R		✳	3T=11: Dry Dens.=78.2 pcf k=2.9 E-08cm/s
			Very mucky at 22.0'	SS-12 22.0-24.0 24"R	WOH WOH WOH ✳ 1	50.4	
				SS-13 24.0-26.0 24"R	WOH WOH WOH ✳ 2	34.4	
			Silty clay lenses at 26.0'	SS-14 26.0-28.0 24"R	WOH WOH WOH ✳ 1	46.6	
				SS-15 28.0-30.0 24"R	WOH WOH 1 ✳ 1	52.6	
				SS-16 30.0-32.0 24"R	WOH WOH WOH ✳ 1	52.6 PL	SS-16: LL = 67 PL = 30 PI = 37
				SS-17 32.0-34.0 24"R	WOH WOH WOH ✳ 1	52.6	
501.9	34.0		Gray coarse to fine sand, some fine gravel, trace silt, trace coal, medium dense to dense, poorly graded, saturated SW-SM	SS-18 34.0-36.0 24"R	WOH 6 11 27		Water level at 34.0' during drilling.
				SS-19 36.0-38.0 24"R	7 8 7 7		Blow-in 36.0' washed off with water. SS-19: Gravel = 23% Sand = 69% Silt or Clay = 8%
				SS-20 38.0-40.0 24"R	8 7 7 8		

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/16/92** ENDED **8/16/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ **34.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-4 SHEET 3 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 5,156.3 E 2,880.7

LOGGED BY KRR
GROUND ELEVATION 535.9

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
495.9	40.0		Gray coarse to fine sand, some fine gravel, trace silt, medium dense, well graded, saturated SW-SM	SS-21 40.0-42.0 24"R	6 7 8 8	○ 15.1	Piezometer was installed immediately after completion of drilling. Refer to as-built diagram P-4 for more details.
493.6	42.3		Gray shale, soft	SS-22 42.0-43.0 10"R	11 100 +/4"		
492.9	43.0		End of Boring at 43.0'				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/16/92** ENDED **8/16/92**

REMARKS
WOH = Weight of Hammer.

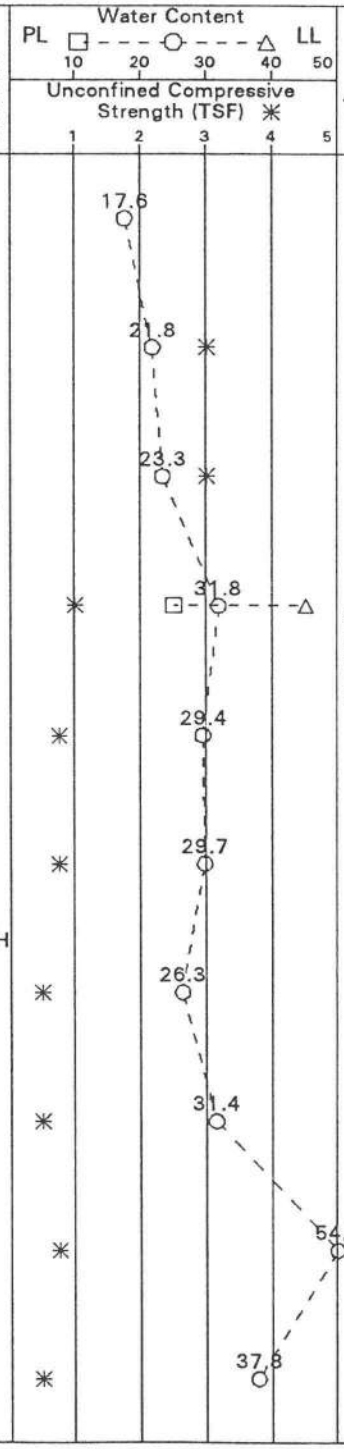
WATER LEVEL (ft.)
▽ **34.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-5D SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,516.7 E 2,885.0

LOGGED BY KRR
GROUND ELEVATION 534.9

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
534.9	0.0		Brown silty clay, trace fine sand, soft, low plasticity, moist, fill CL	AU-1 0.0-2.0	
532.4	2.5		Dark gray to black organic silty clay, trace coarse to fine sand, trace roots, soft to very soft, medium to high plasticity, wet to saturated, fill OL	SS-2 2.0-4.0 20"R	3 4 6 9
				SS-3 4.0-6.0 24"R	3 6 11 12
				SS-4 6.0-8.0 24"R	3 4 5 5
				SS-5 8.0-10.0 24"R	2 3 2 4
				SS-6 10.0-12.0 24"R	2 3 3 2
			Changed from organic silty clay to organic clayey silt from 12.0'.	SS-7 12.0-14.0 24"R	WOH 2 3 2
				SS-8 14.0-16.0 22"R	1 2 2 3
			Wood fragments in SS-9	SS-9 16.0-18.0 24"R	2 2 2 3
				SS-10 18.0-20.0 18"R	1 1 2 2
514.9	20.0				



NOTES & TEST RESULTS
SS-4:
LL = 45
PL = 25
PI = 20

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA
DRILLING EQUIPMENT CME 55/ATV
DRILLING STARTED 8/16/92 ENDED 8/16/92

REMARKS
WOH = Weight of Hammer.

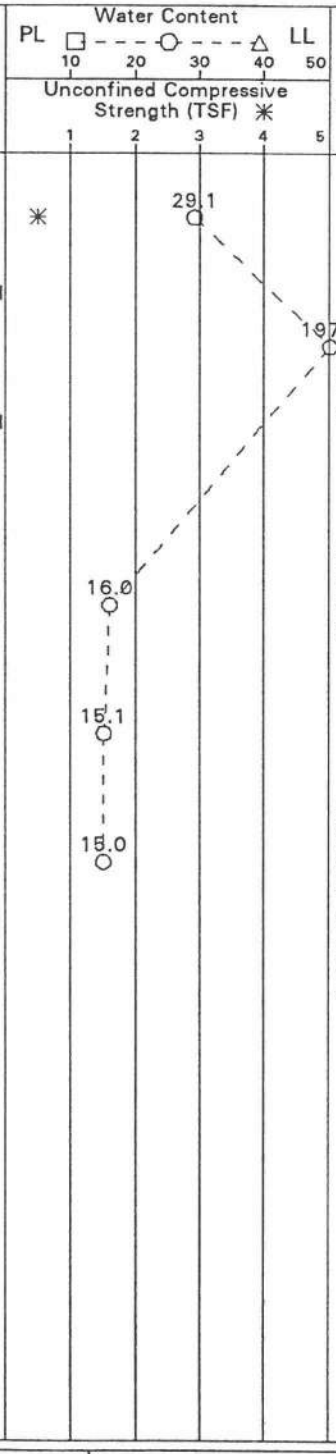
WATER LEVEL (ft.)
▽ 22.0' during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-5D** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION **N 4,516.7 E 2,885.0**

LOGGED BY **KRR**
GROUND ELEVATION **534.9**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
514.9	20.0		Dark gray to black organic silty clay, trace coarse to fine sand, soft, medium to high plasticity, wet to saturated, fill OL	SS-11 20.0-22.0 24"R	2 2 3 4
512.9	22.0		Little coarse to fine sand, trace fine gravel and wood fragments present in SS-11	SS-12AB 22.0-24.0 24"R	WOH 1 1 1
			Gray fine sand, little to some silt, very loose, poorly graded, saturated SM		
			Wood in SS-12B	SS-13 24.0-26.0 24"R	WOH 1 3 2
509.9	25.0		Gray coarse to fine sand, some fine gravel, little silt, loose, well graded, saturated SM	SS-14AB 26.0-28.0 24"R	1 3 5 6
507.6	27.3		Gray shale, soft	SS-15 28.0-30.0 20"R	10 12 14 15
				SS-16 30.0-32.0 22"R	16 18 22 26
502.9	32.0		End of Boring at 32.0'		



NOTES & TEST RESULTS

Water level at 22.0' during drilling.

SS-14A
Gravel = 29%
Sand = 54%
Silt or clay = 17%

Piezometer was installed immediately after completion of drilling. Refer to As-Built Diagram P-5D for more details.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/16/92** ENDED **8/16/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ **22.0'** during drilling
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-5S** SHEET **1** OF **1**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION **N 4,510.7 E 2,887.0**

LOGGED BY **KRR**
GROUND ELEVATION **534.9**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
534.9	0.0		Drilled to 8.0' without sampling. Refer to Boring Log P-5D for soil conditions from 0.0' to 8.0'.				Soil conditions are consistent with soil conditions encountered in P-5D based on soil cuttings.
526.9	8.0		Dark gray to black organic silty clay, trace fine sand, soft, medium to high plasticity, wet to saturated, fill OL	SS-1 8.0-10.0 10"R	2 2 2 3	✳	3T-2: Dry den. = 95.2 pcf k = 7.6 E-08 cm/s
				3T-2 10.0-12.0 16"R		✳ ○ 26.0 ○ 35.2	
522.9	12.0		End of Boring at 12.0'				No water was found during or immediately after drilling. Piezometer was constructed immediately after drilling. Refer to As-Built Diagram P-5S for more details.

DRILLING CONTRACTOR **Patrick Engineering**
DRILLING METHOD **3-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/16/92** ENDED **8/16/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-6D** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,717.0 E 2,186.8**

LOGGED BY **KRR**
GROUND ELEVATION **524.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
524.8	0.0		Brown silty clay, trace to little fine sand, soft, medium plasticity, wet CL	AU-1 0.0-2.0		22.2	
			Mottled at 2.0'	SS-2 2.0-4.0 18"R	2 1 2 3	✳ 21.2	
				SS-3 4.0-6.0 20"R	1 1 2 2	✳ 21.7	
518.3	6.5			SS-4AB 6.0-8.0 18"R	1 2 2 2	✳ 22.0	
517.3	7.5		Brown, clayey, fine sand, little to some silt, loose, poorly graded, saturated SC			25.4	Water level at 6.0' during drilling.
			Brown mottled silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-5 8.0-10.0 10"R	1 1 2 2	✳ 21.7	Wood fragments in SS-5.
514.8	10.0		Gray silty clay, trace fine sand, soft to medium stiff, medium plasticity, wet CL	SS-6 10.0-12.0 20"R	3 1 1 1	✳ 23.8	
				SS-7 12.0-14.0 20"R	2 2 2 2	✳ 28.3	
				SS-8 14.0-16.0 22"R	1 2 4 3	✳ 24.1	
				SS-9 16.0-18.0 24"R	2 2 2 2	✳ 24.7	
				3T-10 18.0-20.0 24"R		✳	
504.8	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/12/92** ENDED **8/12/92**

REMARKS
WOH = Weight of Hammer

WATER LEVEL (ft.)
▽ **6.0'** during drilling
▽ **1.0'** after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-6D SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,717.0 E 2,186.8

LOGGED BY KRR
GROUND ELEVATION 524.8

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
504.8	20.0		Gray silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-11 20.0-22.0 24"R	1 2 2 1
				SS-12 22.0-24.0 24"R	WOH 1 2 1
501.8	23.0		Little fine sand in SS-12		
			Gray clayey silt, trace fine sand, loose, wet to saturated CL-ML/ML	SS-13 24.0-26.0 24"R	2 3 4 4
				SS-14AB 26.0-28.0 24"R	4 4 7 10
497.3	27.5				
496.8	28.0		Gray fine sand, trace coarse to medium sand, some silt, medium dense, poorly graded, saturated SM	SS-15 28.0-30.0 24"R	7 7 18 9
			Gray coarse to fine sand, trace coarse to fine gravel, some silt, medium dense, well graded, saturated SM	SS-16AB 30.0-32.0 22"R	13 16 17 100 +
493.3	31.5				
492.8	32.0		Gray shale		
			End of Boring at 32.0'		

Water Content: PL □ ---○--- △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)

Plotted values: ✳ ✳ 23.3 22.7 18.3 19.5 15.9 14.6 13.2 16.9

NOTES & TEST RESULTS

Water level at 1.0' immediately after drilling.
Piezometer was installed immediatley after completion of drilling.
Refer to As-Built Diagram P-6D for more information.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA
DRILLING EQUIPMENT CME 55/ATV
DRILLING STARTED 8/12/92 ENDED 8/12/92

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ 6.0' during drilling.
▼ 1.0' after drilling.

PATRICK ENGINEERING INC.

BORING NUMBER P-6S SHEET 1 OF 1
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,725.7 E 2,191.4

LOGGED BY KRR
GROUND ELEVATION 524.9

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL 10 20 30 40 50 / Unconfined Compressive Strength (TSF) ✳ 1 2 3 4 5	NOTES & TEST RESULTS
524.9	0.0		Drilled to 4.0' without sampling. Refer to Boring Log P-6D for soil conditions from 0.0' to 4.0'.				Brown silty clay based on soil cuttings up to 4.0'.
520.9	4.0		Brown silty clay, trace to little fine sand, medium stiff, medium plasticity, wet CL	3T-1 4.0-6.0 14"R		✳	SS-2A: Gravel = 0% Sand = 14% Silt or clay = 86%
518.4	6.5		Gray clayey fine sand, some silt, loose, poorly graded, saturated SC	SS-2AB 6.0-8.0 24"R	2 1 1 2	✳ 23.4 22.6	Water level at 7.0' during drilling
515.4	9.5		Brown and tan silty clay to clayey silt, little fine sand, soft to medium stiff, medium plasticity, wet CL/CL-ML	SS-3AB 8.0-10.0 20"R	2 2 1 2	✳ 28.2 21.0	Water level at 3.0' immediately after drilling.
514.9	10.0		2" fine sand lense at 8.5'			27.6	Piezometer was installed immediately after completion of drilling. Refer to As-Built Diagram P-6S for more details.
			Gray silty clay, trace fine sand, medium stiff, medium plasticity, wet CL				
			End of Boring at 10.0'				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/12/92** ENDED **8/12/92**

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ **7.0'** during drilling.
▽ **3.0'** after drilling.
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-6R** SHEET **1** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,719.5 E 2,175.7**

LOGGED BY **KRR**
GROUND ELEVATION **524.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
524.8	0.0		Drilled to top of bedrock at 32.5 feet without sampling. Refer to Boring Log P-6D for soil conditions above top of bedrock.				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/5/92** ENDED **8/6/92**

REMARKS

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-6R** SHEET **2** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 4,719.5 E 2,175.7**

LOGGED BY **KRR**
GROUND ELEVATION **524.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
504.8	20.0		Drilled to top of bedrock at 32.5 feet without sampling. Refer to Boring Log P-6D for soil conditions above top of bedrock.				
							Ceased drilling at 32.5' on 8/5/92. Switched to PQ coring and cored on 8/6/92.
492.3	32.5		Gray shale, massive, excellent	PQ-1 32.5-38.5 72"R			
							RQD = 100%
				PQ-2 38.5-42.5 48"R			RQD = 100%

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **8/5/92** ENDED **8/6/92**

REMARKS

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER P-6R SHEET 3 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 4,719.5 E 2,175.7

LOGGED BY KRR
GROUND ELEVATION 524.8

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
484.8	40.0		Gray shale, massive, excellent				
482.3	42.5		End of Boring at 42.5'.				Piezometer P-6R was installed immediately after completion of drilling. Refer to as-built diagram P-6R for more details.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 6-1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 8/5/92 ENDED 8/6/92

REMARKS

WATER LEVEL (ft.)
▽
▽
▽

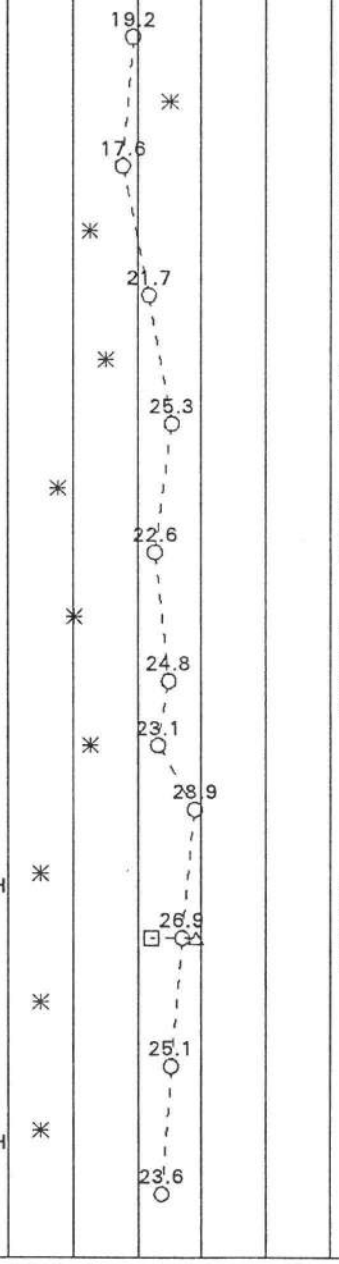
PATRICK ENGINEERING INC.

BORING NUMBER **P-7D** SHEET **1** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION **N 5,342.8 E 2,432.5**

LOGGED BY **KRR**
GROUND ELEVATION **526.5**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	NOTES & TEST RESULTS
526.5	0.0		Brown silty clay, trace fine sand, stiff to very stiff, medium plasticity, wet CL	AU-1 0.0-2.0		
			Mottled from 2.0'.	SS-2 2.0-4.0 24"R	3 3 4 5	
				SS-3 4.0-6.0 24"R	2 3 4 4	SS-3: LL=33 PL=19 PI=14
				SS-4 6.0-8.0 24"R	5 5 5 6	SS-4: CEC = 16.5 meq/100g
				3T-5 8.0-10.0 24"R		3T-5: Dry dens=101pcf k=2.0 E-07 cm/s
				SS-6AB 10.0-12.0 24"R	2 1 2 2	SS-6B: Gravel = 0% Sand = 52% Silt or Clay = 48%
515.0	11.5					
514.5	12.0		Brown clayey fine sand, little silt, loose, poorly graded, moist SC	SS-7 12.0-14.0 24"R	2 2 3 3	
			Gray silty clay, trace fine sand, soft to stiff, low to medium plasticity, wet CL	SS-8 14.0-16.0 24"R	WOH 1 1 1	SS-8: LL = 29 PL = 22 PI = 7
				SS-9 16.0-18.0 24"R	2 2 2 2	
				SS-10 18.0-20.0 24"R	WOH 1 1 1	
506.5	20.0					

Water Content: PL □ - - - ○ - - - △ LL; 10 20 30 40 50
Unconfined Compressive Strength (TSF) ✳: 1 2 3 4 5



DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/30/92** ENDED **7/30/92**

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ **20.0'** during drilling.
▼
▼

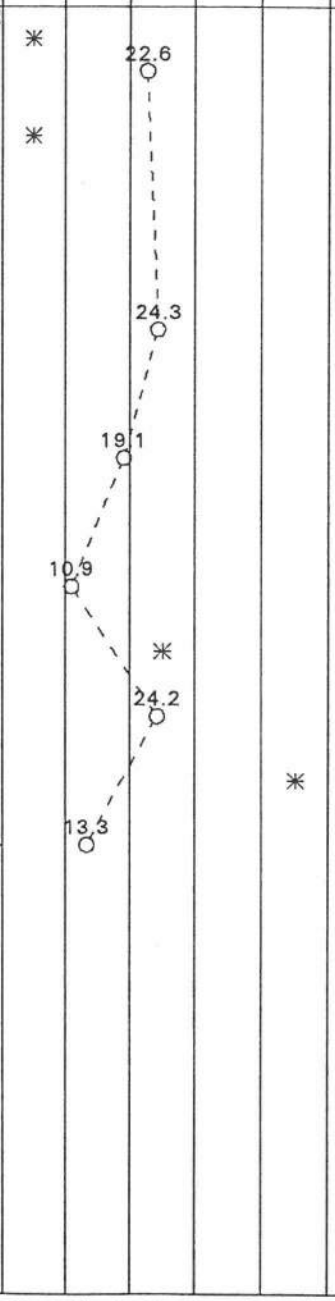
PATRICK ENGINEERING INC.

BORING NUMBER **P-7D** SHEET **2** OF **2**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill - Hydrogeo Invest. - 496B**
LOCATION **N 5,342.8 E 2,432.5**

LOGGED BY **KRR**
GROUND ELEVATION **526.5**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
506.5	20.0		Gray silty clay, trace fine sand, soft, low to medium plasticity, wet CL	SS-11 20.0-22.0 24"R	WOH 1 1 1
				3T-12 22.0-24.0 20"R	
502.5	24.0		Gray clayey silt, some fine sand, loose, poorly graded, saturated CL-ML	SS-13 24.0-26.0 24"R	1 2 1 3
500.5	26.0		Gray fine sand, some silt, very loose, poorly graded, saturated SM	SS-14 26.0-28.0 18"R	1 1 1 1
497.5	29.0		Gray coarse to fine sand, some coarse to fine gravel, little silt, loose, well graded, saturated SW-SM/SM	SS-15 28.0-30.0 20"R	1 1 1 3
495.5	31.0		Gray silty clay to clay, trace fine sand, very stiff to hard, medium to high plasticity, moist CL/CH	SS-16 30.0-32.0 20"R	2 2 4 11
494.0	32.5			SS-17 32.0-34.0 15"R	28 115 200+ /3"
493.3	33.2		Gray shale		
			End of Boring at 33.2'.		

Water Content: PL □ ---○--- △ LL (10 20 30 40 50)
Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)



NOTES & TEST RESULTS

Water level at 20.0' during drilling.

SS-13:
Gravel = 0%
Sand = 34%
Silt or Clay = 66%

SS-16:
Gravel = 27%
Sand = 59%
Silt or clay = 14%

Piezometer was installed immediately after completion of drilling.
Refer to as-built diagram P-7D for more details.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/30/92** ENDED **7/30/92**

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ **20.0'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-7S** SHEET **1** OF **1**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,337.1 E 2,426.3**

LOGGED BY **KRR**
GROUND ELEVATION **526.3**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
526.3	0.0		Drilled to 10.0' without sampling. Refer to Boring Log P-7D for soil conditions from 0' to 10'.				Soil conditions from 0' to 10' were consistent with the soil conditions encountered at P-7D based on soil cuttings.
516.3	10.0						
515.8	10.5		Brown mottled silty clay, trace fine sand, stiff, medium plasticity, wet	SS-1ABC 10.0-12.0 24"R	3	✳	SS-1B: Gravel = 0% Sand = 43% Silt or Clay = 57%
515.3	11.0		CL		2	✳ 24.3 ○	
			Gray clayey silt to clayey sand, loose, poorly graded, moist		2		
514.1	12.2		SC/ML	SS-2 12.0-14.0 24"R	2	✳	Water was not encountered during or immediately after drilling.
			Brown silty clay, trace fine sand, stiff, medium plasticity, wet		3	28.1 ○	
			CL		3		
512.3	14.0		Gray silty clay, medium fine sand, stiff, medium plasticity, wet		4		Piezometer P-6S was installed after completion of drilling. Refer to as-built diagram P-6S for details.
			CL				
			End of Boring at 14.0'.				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/30/92** ENDED **7/30/92**

REMARKS

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-7M SHEET 1 OF 1
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,337.0 E 2,432.8

LOGGED BY KRR
GROUND ELEVATION 525.9

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
525.9	0.0		Drilled to 16.0' without sampling. Refer to Boring Log P-6D for soil conditions from 0' to 16'.				Soil conditions from 0' to 16' were consistent with soil conditions in P-6D based on soil cuttings.
							3T-2: Dry dens. = 101 pcf k = 1.5 E-07 cm/s
509.9	16.0		Gray silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-1 16.0-18.0 24"R	1 1 1 2	✳	Piezometer P-7M was installed immediately after completion of drilling. Refer to as-built diagram P-7M for more details.
				3T-2 18.0-20.0 20"R		✳	
505.9	20.0		End of Boring at 20.0'.				

22.0 ○
20.1 ○
22.5 ○

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 7/30/92 ENDED 7/30/92

REMARKS

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER **P-7R** SHEET **1** OF **3**
CLIENT **City of Springfield CWLP**
PROJECT & NO. **FGDS Landfill-Hydrogeo. Invest. - 496B**
LOCATION **N 5,326.9 E 2,424.5**

LOGGED BY **KRR**
GROUND ELEVATION **525.4**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
525.4	0.0		Drilled to 34.0' (auger refusal) without sampling. Refer to Boring Log P-7D for soil conditions from 0' to 34'.				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **6-1/4" I.D. HSA.**
DRILLING EQUIPMENT **CME-55/ATV**
DRILLING STARTED **7/31/92** ENDED **7/31/92**

REMARKS

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-7R SHEET 2 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,326.9 E 2,424.5

LOGGED BY KRR
GROUND ELEVATION 525.4

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL 10 20 30 40 50; Unconfined Compressive Strength (TSF) ✳ 1 2 3 4 5	NOTES & TEST RESULTS
505.4	20.0		Drilled to 34.0' (auger refusal) without sampling. Refer to Boring Log P-7D for soil conditions from 0' to 34'.				Soil conditions are consistent with soil conditions encountered at P-7D based on soil cuttings.
491.4	34.0		Gray shale, massive, strongly cemented, excellent	PQ-1 34.0-39.0 60"R			Changed to PQ coring from 34.0'. RQD = 100%
				PQ-2 39.0-44.0			

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 6-1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 7/31/92 ENDED 7/31/92

REMARKS

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER P-7R SHEET 3 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 5,326.9 E 2,424.5

LOGGED BY KRR
GROUND ELEVATION 525.4

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
485.4	40.0		Gray shale, massive, stongly cemented, excellent	60"R			RQD = 100%
481.4	44.0		End of Boring at 44.0'.				Piezometer was installed immediately after completion of coring. Refer to as-built diagram P-7R for more details.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 6-1/4" I.D. HSA.
DRILLING EQUIPMENT CME-55/ATV
DRILLING STARTED 7/31/92 ENDED 7/31/92

REMARKS

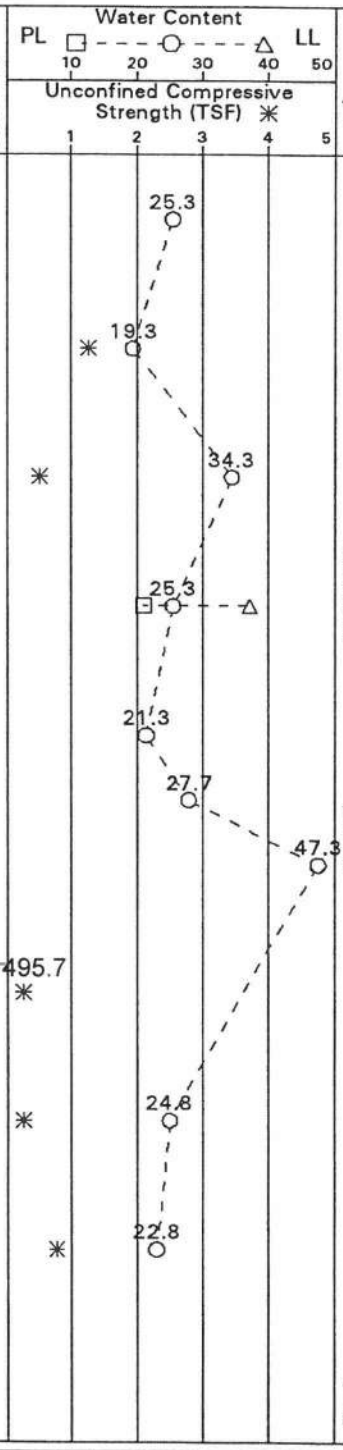
WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-8D SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,939.7 E 2,482.7

LOGGED BY KRR
GROUND ELEVATION 522.7

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
522.7	0.0		Brown to brownish-gray silty clay, trace fine sand, stiff, medium plasticity, wet, fill CL	AU-1 0.0-2.0	
				SS-2 2.0-4.0 8"R	2 2 3 3
518.2	4.5		Dark gray organic silty clay, trace fine sand, wood fragments present, soft, medium plasticity, wet to saturated, fill OL	SS-3 4.0-6.0 10"R	1 2 1 1
			Chunks of wood in SS-4	SS-4 6.0-8.0 8"R	1 2 1 1
514.7	8.0		Gray silty sand, little clay, loose, poorly graded, moist, fill SM	SS-5AB 8.0-10.0 24"R	2 1 2 2
513.9	8.8				
513.2	9.5		Gray clayey sand, little silt, loose, poorly graded, moist, fill SC	SS-6 10.0-12.0 20"R	1 1 1 2
			Dark gray to black organic silty clay, wood fragments present, medium to high plasticity, wet to saturated, fill OL/OH		
510.5	12.2		Chunks of wood and lenses of sand in SS-6	SS-7 12.0-14.0 24"R	1 1 2 1
			Gray silty clay, trace fine sand, soft, medium plasticity, wet CL	SS-8 14.0-16.0 24"R	1 1 1 1
				3T-9 16.0-18.0 20"R	
				3T-10 18.0-20.0 0"R	



NOTES & TEST RESULTS

SS-4:
LL = 37
PL = 21
PI = 16

Water level at 10.0' during drilling.

Tube pushed but no recovery.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/13/92** ENDED **8/13/92**

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ **10.0'** during drilling
▽ **8.0'** after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-8D SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,939.7 E 2,482.7

LOGGED BY KRR
GROUND ELEVATION 522.7

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
502.7	20.0		Gray silty clay, trace to little fine sand, soft, medium plasticity, wet CL	3T-11 20.0-22.0 14"R			
500.7	22.0						
499.9	22.8		Gray silty fine sand, very loose, poorly graded, saturated SM	SS-12AB 22.0-24.0 24"R	WOH WOH WOH 13		SS-13A Gravel = 34% Sand = 50% Silt or clay = 16%
			Gray coarse to fine sand and coarse to fine gravel, little silt, medium dense, well graded, saturated SW-SM/SM	SS-13AB 24.0-26.0 24"R	15 16 12 12	✳	
497.2	25.5		Gray silty clay, trace fine sand, hard, medium to high plasticity, moist CL/CH	SS-14 26.0-27.0 6"R	10 28 100+	○ 18.2 / 13/8 ○	
496.2	26.5		Gray shale				
495.7	27.0		End of Boring at 27.0'				Auger refusal at 27'. Water level at 8.0' immediately after drillling. Piezometer was installed immediately after drilling. Refer to As-Built Diagram P-8D for more details.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 55/ATV**
DRILLING STARTED **8/13/92** ENDED **8/13/92**

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)
▽ **10.0'** during drilling
▽ **8.0'** after drilling
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-8S SHEET 1 OF 1
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,933.1 E 2,486.0

LOGGED BY KRR
GROUND ELEVATION 522.8

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
522.8	0.0		Drilled to 6.0' without sampling. Refer to Boring Log P-8D for soil conditions from 0.0' to 6.0'.				
516.8	6.0		Dark gray silty clay, trace fine sand, organics and wood fragments present, soft, medium plasticity, wet, fill OL	SS-1 6.0-8.0 8"R	1 1 1 1	27.6	
514.8	8.0		Gray clayey fine sand, little silt, loose, poorly graded, moist SC	SS-2AB 8.0-10.0 14"R	1 2 1 2	24.7	SS-3: Gravel = 0% Sand = 12% Silt or clay = 26%
513.3	9.5		Dark gray to black organic silty clay, trace medium to fine sand, wood fragments present, soft, medium plasticity, wet to saturated OL	SS-3 10.0-12.0 16"R	1 2 1 2	41.0	
510.8	12.0		End of Boring at 12.0'				Water was not encountered during or immediately after drilling. Piezometer was installed after completion of drilling. Refer to As-Built Diagram P-8S for more details.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA
DRILLING EQUIPMENT CME 55/ATV
DRILLING STARTED 8/13/92 ENDED 8/13/92

REMARKS
WOH - Weight of Hammer.

WATER LEVEL (ft.)

PATRICK ENGINEERING INC.

BORING NUMBER P-9D SHEET 1 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,446.3 E 2,422.4

LOGGED BY KRR
GROUND ELEVATION 553.2

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
553.2	0.0		Dark brown silty clay, trace fine sand, low plasticity, moist, fill CL				
551.7	1.5		Brown mottled silty clay, trace fine sand, stiff to hard, medium plasticity, moist, fill CL	AU-1 1.0-1.5		14.8	
			Trace sulfur waste	SS-2 2.0-4.0 12"R	2 2 4 5	18.1	
				SS-3 4.0-6.0 12"R	3 4 5 7	16.1	
				SS-4 6.0-8.0 18"R	3 3 6 10	15.1	
				SS-5 8.0-10.0 18"R	4 5 6 8	15.4	
				SS-6 10.0-12.0 18"R	4 5 5 7	20.5	
				SS-7 12.0-14.0 4"R	2 2 4 5	16.4	
				3T-8 14.0-16.0 24"R			3T-8: Dry Den. = 102.3 pcf k = 1.3 E-08 cm/s
				SS-9 16.0-18.0 18"R	3 4 6 6	19.5	
534.7	18.5			SS-10 18.0-20.0 12"R	4 6 9 11	18.7	
533.2	20.0		Dark brown silty clay, trace fine sand, very stiff, low to medium plasticity, moist to wet, fill				

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" I.D. HSA
DRILLING EQUIPMENT CME 75
DRILLING STARTED 8/18/92 ENDED 8/18/92

REMARKS
WOH = Weight of Hammer.

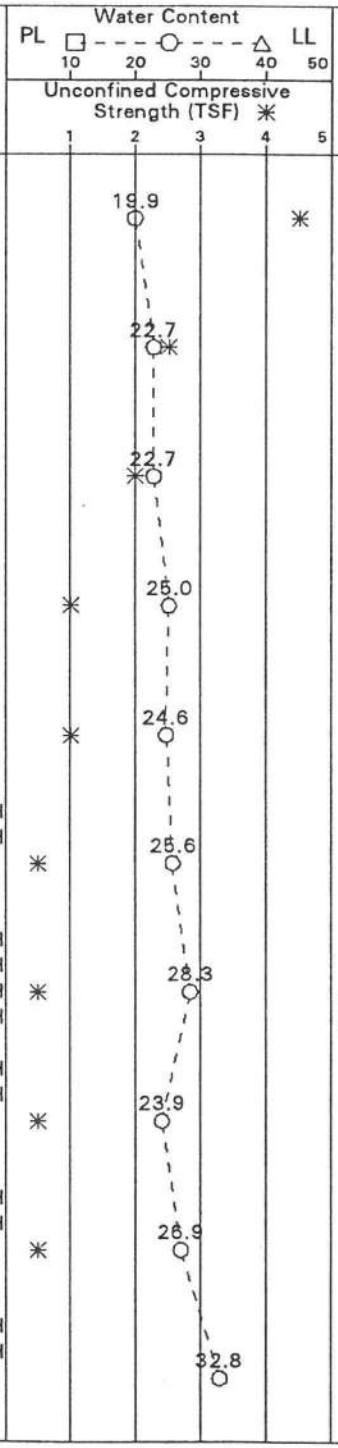
WATER LEVEL (ft.)
▽ 32.5' during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-9D SHEET 2 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,446.3 E 2,422.4

LOGGED BY KRR
GROUND ELEVATION 553.2

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS
533.2	20.0		CL Dark brown silty clay, trace fine sand, very stiff, low to medium plasticity, moist to wet, fill CL	SS-11 20.0-22.0 18"R	7 10 14 16
				SS-12 22.0-24.0 12"R	3 3 4 8
				SS-13 24.0-26.0 18"R	2 3 4 6
526.9	26.3		Brown silty clay, trace fine sand, stiff, medium plasticity, wet CL	SS-14 26.0-28.0 20"R	2 3 3 4
				SS-15 28.0-30.0 24"R	1 2k 2 3
				SS-16 30.0-32.0 24"R	WOH WOH 2 3
521.2	32.0		Gray silty clay, trace fine sand, medium stiff, medium plasticity, wet CL	SS-17 32.0-34.0 24"R	WOH WOH WOH WOH
				SS-18 34.0-36.0 24"R	WOH WOH 1 3
				SS-19 36.0-38.0 24"R	WOH WOH 1 2
514.6	38.6			SS-20 38.0-40.0 24"R	WOH WOH 2 3
513.2	40.0		Gray silty clay to clayey silt and medium to fine sand, very soft, medium plasticity, wet		



NOTES & TEST RESULTS

Water level at 32.5 feet during drilling.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 75**
DRILLING STARTED **8/18/92** ENDED **8/18/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ **32.5'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-9D SHEET 3 OF 3
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,446.3 E 2,422.4

LOGGED BY KRR
GROUND ELEVATION 553.2

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL LL / Unconfined Compressive Strength (TSF)	NOTES & TEST RESULTS
513.2	40.0		CL/CL-ML Gray silty clay to clayey silt and medium to fine sand, very soft, medium plasticity, wet CL/CL-ML	SS-21 40.0-42.0 24"R	WOH WOH WOH 1	29.6	
				SS-22 42.0-44.0 24"R	WOH WOH WOH ✳ 2	24.1	
				SS-23 44.0-46.0 24"R	WOH WOH WOH WOH	24.9	
				SS-24 46.0-48.0 24"R	WOH WOH WOH ✳ WOH	24.4	
				SS-25 48.0-50.0 24"R	WOH WOH 1 ✳ 2	21.3	
				SS-26 50.0-52.0 24"R	WOH WOH WOH ✳ WOH	20.7	SS-26: Gravel = 0% Sand = 33% Silt = 53% Clay = 14%
501.2	52.0		Gray silty sand, very loose, poorly graded, saturated SM	SS-27 52.0-54.0 24"R	WOH WOH 1 1		SS-29A Gravel = 22% Sand = 66% Silt or clay = 12%
497.9	55.3		Gray coarse to fine sand, some fine gravel, very loose to loose, poorly graded, saturated SP-SM/SM	SS-28 54.0-56.0 24"R	WOH WOH 3 7		
495.7	57.5			SS-29AB 56.0-58.0 24"R	6 9 17 32		Piezometer was installed immediately after drilling. Refer to As-built Diagram P-9D for details.
495.2	58.0		Gray shale				
			End of Boring at 58.0'				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME 75**
DRILLING STARTED **8/18/92** ENDED **8/18/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽ **32.5'** during drilling.
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-9S SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill-Hydrogeo. Invest. - 496B
LOCATION N 4,447.3 E 2,415.6

LOGGED BY SAS
GROUND ELEVATION 553.1

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
553.1	0.0		Drilled to 34' without sampling. See Boring Log P-9D for details.				

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4-1/4" ID HSA
DRILLING EQUIPMENT CME 75
DRILLING STARTED 8/19/92 ENDED 8/19/92

REMARKS

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER P-9S SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,447.3 E 2,415.6

LOGGED BY KRR
GROUND ELEVATION 553.1

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
533.1	20.0						
519.1	34.0		Gray silty clay, trace fine sand, medium stiff, medium plasticity, moist to wet CL	3T-1 34.0-36.0 24"R		✳ 24.1 ○	3T-1: Dry dens. = 101.2 pcf k = 1.3 E-06cm/s
516.1	37.0		End of Boring at 37.0'				

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" ID HSA**
DRILLING EQUIPMENT **CME 75**
DRILLING STARTED **8/19/92** ENDED **8/19/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER LP-1 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,326.5 E 2,639.9

LOGGED BY JSV
GROUND ELEVATION 564.6

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
564.6	0.0		Intermediate cover, fill				
563.6	1.0		Light gray sludge, fill				
551.6	13.0		Gray sludge, dry, fill	SS-1 13.0-15.0 19"R	4 7 8 6		
544.6	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4" I.D. HSA**
DRILLING EQUIPMENT **CME-75/ATV**
DRILLING STARTED **7/25/92** ENDED **7/25/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER LP-1 SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,326.5 E 2,639.9

LOGGED BY JSV
GROUND ELEVATION 564.6

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
544.6	20.0		Dark gray sludge, saturated, fill	SS-2 20.0-22.0 22"R	6 10 7 6		
542.6	22.0		End of Boring at 22.0'.				Leachate piezometer was installed immediatelt after completion of drilling. Refer to as-built diagram LP-1 for details.

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4" I.D. HSA
DRILLING EQUIPMENT CME-75/ATV
DRILLING STARTED 7/25/92 ENDED 7/25/92

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER LP-2 SHEET 1 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,257.5 E 2,365.8

LOGGED BY JSV
GROUND ELEVATION 568.2

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
568.2	0.0		Intermediate cover, fill				
567.2	1.0		Light gray sludge, fill				
555.2	13.0		Light gray sludge, dry, fill	SS-1 13.0-15.0 15"R	9 34 60		
548.2	20.0						

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-75/ATV**
DRILLING STARTED **7/25/92** ENDED **7/25/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽
▽
▽

PATRICK ENGINEERING INC.

BORING NUMBER LP-2 SHEET 2 OF 2
CLIENT City of Springfield CWLP
PROJECT & NO. FGDS Landfill - Hydrogeo Invest. - 496B
LOCATION N 4,257.5 E 2,365.8

LOGGED BY JSV
GROUND ELEVATION 568.2

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content PL □ - - - ○ - - - △ LL (10 20 30 40 50) / Unconfined Compressive Strength (TSF) ✳ (1 2 3 4 5)	NOTES & TEST RESULTS
548.2	20.0		Light gray sludge, saturated, fill	SS-2 20.0-22.0 19"R	9 10 12 26		
546.2	22.0		End of Boring at 22.0'.				Leachate piezometer was installed immediately after completion of drilling. Refer to as-built diagram LP-2 for more details.

DRILLING CONTRACTOR **Patrick Drilling**
DRILLING METHOD **4-1/4" I.D. HSA**
DRILLING EQUIPMENT **CME-75/ATV**
DRILLING STARTED **7/25/92** ENDED **7/25/92**

REMARKS
WOH = Weight of Hammer.

WATER LEVEL (ft.)
▽
▽
▽

APPENDIX A2:
FGDS UNIT 2 LANDFILL MONITOR WELL LOGS

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring R-101

Project Name: Monitoring Well Installations Date of Boring: January 15, 1990

Site: CWLP Ash Disposal Facility Project No.: 020-05001

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
*Note 1							
Silty clay to clayey silt, light brown, light grey	5	1-SS	35%				
		2-SS	100%				
	10						
13.0'-13.2': Brown sand, fine to medium		3-SS	75%				While Drilling
Silty clay, grey, mottled brown	15						
		4-SS	100%				
Silt to clayey silt, grey, brown, some sand, fine to medium	20						
		5-SS	100%				
	25						
		6-SS	100%				
	30						
Shale, grey, brown (weathered)		7-SS	100%				
End of Boring							
*Note 1: 0"-6" Brown silty clay with organics							

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring R-102

Project Name: Monitoring Will Installations Date of Boring: January 11, 1990

Site: CWLP Ash Disposal Facility Project No.: 020-05001

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
*Note 1							
Clayey silt, light brown, light grey	5	1-SS	100%				
		2-SS	80%				
Silty clay, grey, mottled brown	10	3-SS	100%				
Clayey silt to silt, dark grey, some sand, fine	15	4-SS	100%				
	20	5-SS	75%				While Drilling
	25	6-SS	100%				
	30	7-SS	75%				
	35						
Sand, fine to medium, grey		8-SS	100%				
Shale, grey, weathered							
End of Boring							
*Note 1: Dark brown silty clay with organcis							

PSI A-100-2

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring R-103

Project Name: Monitoring Well Installations Date of Boring: January 13, 1990

Site: CWLP Ash Disposal Facility Project No.: 020-05001

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
*Note 1							
Clayey silt, light brown, light grey, with white streaks	5	1-SS	100%				
		2-SS	100%				
	10	3-SS	100%				
	15						While Drilling ▽
		4-SS	100%				
19'-19.5' - Grey sand, fine	20						
Silty clay, some sand, fine, organics, grey		5-SS	100%				
(Coal fragments from 22'-29')	25	6-SS	100%				
	30						
Shale, grey, weathered		7-SS	100%				
End of Boring							
*Note 1: Black silty clay with organcis							

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring G-104

Project Name: Monitoring Well Installations Date of Boring: January 12, 1990

Site: CWLP Ash Disposal Facility Project No.: 020-05001

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Clayey silt with coal fragments, organics, mottled brown	5	1-SS	100%				
		2-SS	100%				
	10						
Silty clay, black to dark brown, some organics to 16'		3-SS	75%				
	15						
		4-SS	100%				▽ While Drilling
	20						
Grey sand, fine to coarse		5-SS	60%				
Silty clay, trace sand, grey	25						
		6-SS	100%				
Silty sand, grey, fine to medium	30						
		7-SS	60%				
	35						
Shale, grey, weathered		8-SS	100%				
End of Boring							

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring G-105

Project Name: Monitoring Well Installations Date of Boring: January 9, 1990

Site: CWLP Ash Disposal Facility Project No.: 020-05001

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay to clayey silt, trace organics, brown (fill)	5	1-SS	20%				
	10	2-SS	35%				
		3-SS	25%				
Silty clay, drak grey to black, some organics	15						
Silty clay to clay, grey, mottled brown, trace sand	20	4-SS	100%				
		5-SS	40%				
Silty clay with sand, fine to medium, brown	25	6-SS	35%				While Drilling ▽
	30	7-SS	40%				
	35	8-SS	100%				
Silty clay, trace sand, dark grey, fine	40	9-SS	100%				
	45						

PSI A-100-9

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring G-105 (Continued)

Project Name: Monitoring Well Installations Date of Boring: January 9, 1990

Site: CWLP Ash Disposal Facility Project No.: 020-05001

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
Silty clay, some sand, fine, dark grey	45	10-SS	100%				
48'-48.7': Grey sand, fine to medium	50	11-SS	80%				
Shale, grey, weathered							
End of Boring							

PSI A-100-8

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring G-106

Project Name: Monitoring Well Installations Date of Boring: February 23, 1990

Site: CWLP Ash Disposal Facility Project No.: 020-05001

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Silty clay, brown, moist, trace organics		1-SS	75%			24	▽ 0 HR
	5	2-SS	100%			26	
Silty clay, grey, mottled brown							
Sand, fine to course, brown, wet							
	10	3-SS	100%			37	
Silty clay to clayey silt, grey, trace sand, fine	15					25	
		4-SS	100%			27	
	20	5-SS	100%			23	
	25	6-SS	70%				
Sand, fine to medium, trace silt, grey, wet	30						
		7-SS	50%				
Shale, grey, hard						9	
END OF BORING	35						

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Coordinates
Northing: 3728.6
Easting: 2315.7

Boring Information:
Boring No.: G110
Well No.: G110
Surf. Elev.: 554.5
Depth Information:
Total: 59.5
Auger: 59.5
Rotary: N/A
Dates:
Start: 7/12/93
Finish: 7/12/93

Drilling Contractor:
Name: AE Exploration Corp.
City: Springfield, IL
Equipment: CME 55

Personel:
Geologist: B. Hunsberger
Driller: M. Moore
Helper (s): R. Smith

Sample Type: ▯ - Continuous Barrel ⊠ - Split Spoon ⧄ - Shelby Tube ▮▮ - Core ▭ - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	$q_u/[q_s]$ (in tsf)	% Moisture
	1		1A	3.2'		3.5	
						2.75	
5	2		2A				
			2B			2.8	
						2.5	
			2C	5.0'		0.8	
	3						
10				1.4'			
	4		4A			0.7	
						0.5	
				2.8'		0.85	
			5A			3.25	
15	5					2.75	
						2.25	
			5B			2.0	
				4.8'		2.8	
	6					1.8	
						2.2	
20						1.8	

Borehole Detail: Concrete Plug; Cement/Bentonite Grout

Lithology	Description/*Comments*	USC	Elev. (MSL)
	Gravel backfill-*access road.*		554.5
	Dark gray silty CLAY, little sand and gravel, with rootlets.		549.5
	Dark gray-black clayey SILT, some fine sand, rootlets.		
	Dark gray-black silty CLAY, soft, with rootlets, some fine sand.		544.5
	Dark gray, very moist silty CLAY-clayey SILT, numerous plant and wood fragments *(appears to be original grade).*		539.5
			534.5

NOTE: $\bar{Y}$ = groundwater encountered while drilling.

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, and Power
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AEEI No.: 93-118

Location:
Coord. System: Site Coordinates
Northing: 3728.6
Easting: 2315.7

Boring Information:
Boring No.: G110
Well No.: G110
Surf. Elev.: 554.5
Depth Information:
Total: 59.5
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Rotary: N/A
Dates:
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Name: AE Exploration Corp.
City: Springfield, IL
Equipment: CME 55

Personel:
Geologist: B. Hunsberger
Driller: M. Moore
Helper (s): R. Smith

Sample Type: ▯ – Continuous Barrel ⊠ – Split Spoon ⧄ – Shelby Tube ▯▯ – Core ▭ – Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	$q_u/[q_s]$ (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
												534.5
	8		8A			1.7				Dark gray silty CLAY, moist, trace fine sand, little organics.		
			8B	5.0'		1.6						
25	7			2.0'						Gray mottled light gray-brown silty CLAY, little fine sand, some plant roots.		529.5
			8A			0.7						
	8		8B			2.0 1.2						
				3.0'		1.3						
						2.2						
30			9A			2.2				Gray mottled brown silty CLAY, trace fine sand, little organics.		524.5
	9					2.2 2.75						
						2.75						
			9B	5.0'		1.75				Gray clayey SILT.		
						0.75						
			10A			0.3						
35						0.2						519.5
	10					0.2				Gray CLAY, very soft, some organic clay strata present. *(* The clay was too soft for the pocket penetrometer).*		
						*						
						*						
				5.0'		*						
	11		11A									
40												514.5

Cement/Bentonite Grout

Bentonite Seal

NOTE: ⊻ = groundwater encountered while drilling.

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Coordinates
Northing: 3728.6
Easting: 2315.7

Boring Information:
Boring No.: G110
Well No.: G110
Surf. Elev.: 554.5
Depth Information:
Total: 59.5
Auger: 59.5
Rotary: N/A
Dates:
Start: 7/12/93
Finish: 7/12/93

Drilling Contractor:
Name: AE Exploration Corp.
City: Springfield, IL
Equipment: CME 55

Personel:
Geologist: B. Hunsberger
Driller: M. Moore
Helper (s): R. Smith

Sample Type: ▯ – Continuous Barrel ☒ – Split Spoon ⧄ – Shelby Tube ▯▯ – Core ☐ – Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	$q_u/[q_s]$ (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
								Bentonite Seal				514.5
	11		11B	5.0'						Gray fine silty SAND, little clay.		
45			12A									509.5
	12		12B	5.0'				Filter Pack and/or Formation Sand				
50										Gray, fine clayey SAND, some silt.		504.5
	13		13A	5.0'								
55										Gray shale with muscovite mica. *(Since there was no recovery in Run # 14, the bedrock contact was determined at the depth the down pressure increased from 300 psi to 1500 psi on the auger column.)*		499.5
	14			0.0'				Bentonite Seal				
	15	☒	15A	0.7'	10 31							
60										*E.O.B.=59.5 feet*		494.5

NOTE: ▽ = groundwater encountered while drilling.

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 4,445.0
Easting: 2,249.0

Boring Information:
Boring No.: G-111
Well No.: G-111
Surf. Elev.: 553.6
Depth Information:
Total: 59.60
Auger: 59.60
Rotary: 0.00
Dates:
Start: 7/20/93
Finish: 7/21/93

Drilling Contractor:
Name: AE Exploration Corp.
City: Springfield, IL
Equipment: CME 45 - 4¼" HSA /w 5 foot continuous barrel sampler.

Personel:
Geologist: R. Hasenyager
Driller: A. Weisenhofer
Helper (s): K. Doetzel

Sample Type: Continuous Barrel | Split Spoon | Shelby Tube | Core | Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_u / [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
										Very dark brown, slightly moist, clayey SILT with roots, other organic matter, and trace sand.		553.6
	1							Concrete Plug		Brown, soft, slightly moist, silty CLAY, with trace sand.		
5				0.0								548.6
	2					3.25						
						4.50						
10				5.0								543.6
	3					(1.50) 1.75				Dark brown, moist, plastic, silty CLAY, with trace sand.		
						0.75				Brown, moist, plastic, silty CLAY, with trace sand.		
15				5.0								538.6
	4			1.3						Brown mottled gray, moist, plastic, silty CLAY, With trace sand and organic matter.		
	5					1.75 (1.10) 1.00		Cement/Bentonite Grout		Black dry, friable, clayey SILT, with no sand or pebbles.		
20				3.0								533.6

NOTE: ▽ = water level 13 hours after completion.
Torvane values are actual dial readings.

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 4,445.0
Easting: 2,249.0

Boring Information:
Boring No.: G-111
Well No.: G-111
Surf. Elev.: 553.6
Depth Information:
Total: 59.60
Auger: 59.60
Rotary: 0.00
Dates:
Start: 7/20/93
Finish: 7/21/93

Drilling Contractor:
Name: AE Exploration Corp.
City: Springfield, IL
Equipment: CME 45 - 4¼" HSA /w 5 foot continuous barrel sampler.

Personel:
Geologist: R. Hasenyager
Driller: A. Weisenhofer
Helper (s): K. Doetzel

Sample Type: ▯ - Continuous Barrel ⊠ - Split Spoon ⧄ - Shelby Tube ▮▯ - Core ☐ - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	$q_u/[q_s]$ (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
												533.6
	6			2.0		[3.40]				Brown mottled gray, moist, plastic, silty CLAY, with trace sand and organics. *Soil sample contained 1,170 ppm sulfate.*		
	7											
25				3.0		2.10						528.6
	8											
30				5.0						▽-- *Free water during drilling* Brown, very moist, clayey SILT with some sand (fine-grained). *Very thin SAND (fine-grained) seam at 30.1'*		523.6
	9									Brown, mottled gray, very moist, clayey SILT, with some sand (fine- grained) and trace organics.		
35				5.0								518.6
	10			2.0		[0.85]				Gray, very moist, sandy SILT.		
						0.50				Reddish brown, moist clayey SILT, with trace organics.		
	11					0.75						
40				3.0						Gray, very moist, clayey SILT, with sand (very fine- to fine- grained). *Sandier zones at 38.2'-38.3' and 38.5'-38.8'*		513.6

Cement/Bentonite Grout

NOTE: ▽ = water level 13 hours after completion.
Torvane values are actual dial readings.

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 4,445.0
Easting: 2,249.0

Boring Information:
Boring No.: G-111
Well No.: G-111
Surf. Elev.: 553.6
Depth Information:
Total: 59.60
Auger: 59.60
Rotary: 0.00
Dates:
Start: 7/20/93
Finish: 7/21/93

Drilling Contractor:
Name: AE Exploration Corp.
City: Springfield, IL
Equipment: CME 45 - 4¼" HSA /w 5 foot continuous barrel sampler.

Personel:
Geologist: R. Hasenyager
Driller: A. Weisenhofer
Helper (s): K. Doetzel

Sample Type: ▯ - Continuous Barrel ⊠ - Split Spoon ▨ - Shelby Tube ▮ - Core ☐ - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	$q_u/(q_s)$ (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
										Roots at 39.3'		513.6
	12			2.0						Gray, saturated, clayey SILT, with some sand (very fine-grained).		
	13					0.25 [0.35] 0.25						
45				5.0								508.6
	14									Gray, saturated, silty SAND (very fine- to fine-grained).		
										Gray, saturated, sandy SILT.		
										Gray, saturated, silty SAND (very fine- to fine-grained).		
50				5.0								503.6
	15									Gray, saturated, SAND (very fine- to fine-grained), with some silt.		
										Gray, saturated, silty SAND (very fine- to fine-grained).		
										Gray, very moist, interbedded clayey SILT, with some sand (very-fine grained) and silty SAND (very fine- to fine-grained).		
55				4.0	32					Gray, saturated, silty SAND (fine- to coarse-grained) and PEBBLE (very fine- to medium-grained).		498.6
	16				41							
					27							
	17			2.0	17					*Shale and sandstone fragments more abundant in lower 1.0'*		
					8							
					14							
				1.7	12							
	18				60+					Gray, slightly moist, hard, massive, SHALE. *Bedrock*		
60										*E.O.B. = 59.6 feet*		493.6

Borehole Detail: Cement/Bentonite Grout; Bentonite Seal; Filter Pack

NOTE: ▼ = water level 13 hours after completion.
Torvane values are actual dial readings.

SKS ENGINEERS, INC.
2900 N. MARTIN LUTHER KING JR. DRIVE
DECATUR, ILLINOIS 62526

SOIL BORING LOG

Date 05/26/2009

SKS Project No. 911607

ROUTE _____ DESCRIPTION CWLP / Landfill Well Replacement LOGGED BY T. Mathias/EK/AL

SECTION N/A LOCATION Springfield, IL SEC. ____ TWP. _____ RNG. _____ PM

COUNTY Sangamon DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Safety Hammer

STRUCT. NO. _____
Station _____

BORING NO. R111
Station _____
Offset _____
Ground Surface Elev. _____ ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
GRASS							
BLIND DRILLED TO 44.5 FT.							
-5				-25			
-10				-30			
-15				-35			
-20				-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

SKS ENGINEERS, INC.
2900 N. MARTIN LUTHER KING JR. DRIVE
DECATUR, ILLINOIS 62526

SOIL BORING LOG

Date 05/26/2009

ROUTE _____ DESCRIPTION SKS Project No. 911607 CWLP / Landfill Well Replacement LOGGED BY T. Mathias/EK/AL

SECTION N/A LOCATION Springfield, IL SEC. ____ TWP. _____ RNG. _____ PM

COUNTY Sangamon DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Safety Hammer

STRUCT. NO. _____
Station _____

BORING NO. R111
Station _____
Offset _____
Ground Surface Elev. _____ ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
BLIND DRILLED TO 44.5 FT.							
44.5 Gray, Saturated Sandy Silt							
46.5 Saturated, Silty Fine Sand							
49.5 Gray, Saturated, Silty Fine Sand							
54.5 Gray, Saturated, Silty Fine Sand, with Gravel							
59.5 END OF BORING @ 59.5 FT.							

2" Groundwater Monitor Well Installed

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 4,450.9
Easting: 2,560.6

Boring Information:
Boring No.: G-112
Well No.: G-112
Surf. Elev.: 552.7
Depth Information:
Total: 57.80
Auger: 57.80
Rotary: 0.00
Dates:
Start: 7/21/93
Finish: 7/23/93

Drilling Contractor:
Name: AE Exploration Corp.
City: Springfield, IL
Equipment: CME 45 – 4¼" HSA /w 5 foot continuous barrel sampler.

Personel:
Geologist: R. Hasenyager
Driller: A. Weisenhofer
Helper (s): K. Doetzel

Sample Type: Continuous Barrel – Split Spoon – Shelby Tube – Core – Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	$q_u/[q_s]$ (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
												552.7
	1			0.0				Concrete Plug		Very dark brown, slightly moist, clayey SILT with roots, other organic matter, and trace sand.		
										Brown, soft, slightly moist, silty CLAY, with trace sand.		
5												547.7
	2			1.3								
10												542.7
	3			5.0		1.25		Cement/Bentonite Grout		Dark brown, slightly moist, plastic, silty CLAY, with trace sand.		
						1.00				Brown, moist, plastic, silty CLAY, with trace sand.		
15												537.7
	4			1.7		1.75				Brown mottled gray, moist, plastic, silty CLAY, with trace sand and organic matter.		
	5			3.0		1.50						
						4.25				Black, moist, friable, clayey SILT, with no sand or pebbles.		
20												532.7

NOTE: $\dot{\Upsilon}$ = water level 14 hours after completion.
Torvane values are actual dial readings.

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 4,450.9
Easting: 2,560.6

Boring Information:
Boring No.: G-112
Well No.: G-112
Surf. Elev.: 552.7
Depth Information:
Total: 57.80
Auger: 57.80
Rotary: 0.00
Dates:
Start: 7/21/93
Finish: 7/23/93

Drilling Contractor:
Name: AE Exploration Corp.
City: Springfield, IL
Equipment: CME 45 – 4¼" HSA /w 5 foot continuous barrel sampler.

Personel:
Geologist: R. Hasenyager
Driller: A. Weisenhofer
Helper (s): K. Doetzel

Sample Type: – Continuous Barrel – Split Spoon – Shelby Tube – Core – Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	$q_u/[q_s]$ (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
												532.7
	6			5.0		4.00 2.75 [1.00] 1.50		Cement/Bentonite Grout		Brown mottled gray, slightly moist, plastic, silty CLAY, with trace sand and organics.		
25	7			2.0								527.7
	8			3.0		0.50 0.50				Brown mottled gray, slightly moist, plastic, silty CLAY, with trace sand and organic matter.		
30										▽-- *Free water during drilling*		522.7
	9			5.0		0.75 [0.38] [0.30] 0.50 0.75						
35												517.7
	10			5.0		[0.60] 1.25 1.25 [0.47]				Dark gray, moist, clayey SILT, with trace sand. Reddish brown, moist, clayey SILT, with trace organic matter. Greenish gray, very moist, silty CLAY, with trace sand. *High-angle, dry, parting surfaces at 38.7', 39.1', and 39.5'*		
40												512.7

NOTE: ▽ = water level 14 hours after completion.
Torvane values are actual dial readings.

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, and Power
Location: Springfield, IL
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AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 4,450.9
Easting: 2,560.6

Boring Information:
Boring No.: G-112
Well No.: G-112
Surf. Elev.: 552.7
Depth Information:
Total: 57.80
Auger: 57.80
Rotary: 0.00
Dates:
Start: 7/21/93
Finish: 7/23/93

Drilling Contractor:
Name: AE Exploration Corp.
City: Springfield, IL
Equipment: CME 45 - 4¼" HSA /w 5 foot continuous barrel sampler.

Personel:
Geologist: R. Hasenyager
Driller: A. Weisenhofer
Helper (s): K. Doetzel

Sample Type: - Continuous Barrel - Split Spoon - Shelby Tube - Core - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_u / [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
												512.7
	11			3.0		0.50 0.25 [0.10]		Cement/Bentonite Grout		*Wood chips and small twigs at 41.4'* Gray, very moist, clayey SILT, with trace sand. *Small (2-3 mm.)* Bivalvia *and* Gastropoda *throughout bed.*		
	12			2.0						Gray, saturated, soft, sandy SILT.		
45												507.7
	13			3.0		0.25 [0.22] 0.25				Gray, saturated, silty SAND (very fine- to fine-grained). Gray, very moist, plastic, sandy SILT.		
	14			2.0				Bentonite Seal		Gray, saturated, silty SAND (very fine- to fine-grained). SAND (fine-grained) seams at 46.5' and 46.8'.		
50												502.7
	15			4.5		[0.35] 0.50 [0.30] 0.50 0.50		Filter Pack		Gray, very moist, clayey SILT, with organics and trace sand. Thin SAND (fine-grained) seams at 53.7' and 53.9'. *Decreasing organic content with depth. No organics lower 0.5'.*		
55												497.7
	16			1.5						Gray, very moist, sandy SILT. Gray, saturated, silty SAND (fine- to coarse-grained) and PEBBLE (very fine- to medium-grained). *Shale and sandstone fragments upper 0.3'*		
	17									Gray, slightly moist, hard, massive, SHALE. *Bedrock*		
60										*E.O.B. = 57.8 feet*		492.7

NOTE: ▽ = water level 14 hours after completion.
Torvane values are actual dial readings.

RAPPS

ENGINEERING and APPLIED SCIENCE

821 SOUTH DURKIN – SPRINGFIELD IL 62704 – (217)787-2118

BORING LOG

Site Name: FGDS Development Landfill — Boring No: AW-1

Drilling Firm: Reynolds Drilling Corp. — Drilling Method: HSA — Surface Elev: 552.85

Logged By: KJM — Checked By: KJM — Date Started: 12/29/08 — Completed: 12/30/08

DEPTH	Material Description Classification System	Sampling Tube No.	Type	% Rec.	Tests OVM (ppm)	Qu t/sf PEN	Moist	Comments	Well	DEPTH
0	Fill (not sampled)		5' CONTINUOUS SAMPLER					Blind drilled to 15'		0
15	Gray to brown silty clay fill; Moist; Soft to firm; Sand, pebbles & coal fragments	1		100						15
20	Plant debris	2		100						20
25	Dk. brown to gray clayey silt; Moist; Firm to hard; Laminated	3		100				Base of fill @ 23.6'		25
30										30

Water Level_____ after_____ hrs.

RAPPS

ENGINEERING and APPLIED SCIENCE

821 SOUTH DURKIN – SPRINGFIELD IL 62704 – (217)787-2118

BORING LOG

Site Name: FGDS Development Landfill — Boring No: AW-1

Drilling Firm: Reynolds Drilling Corp. — Drilling Method: HSA — Surface Elev: 552.85

Logged By: KJM — Checked By: KJM — Date Started: 12/29/08 — Completed: 12/30/08

DEPTH	Material Description (Classification System)	Sampling: Tube No.	Sampling: Type	Sampling: % Rec.	Tests: OVM (ppm)	Tests: Qu t/sf PEN	Tests: Moist	Comments	Well	DEPTH
30	Trace fine sand; Mottled	4	5' CONTINUOUS SAMPLER	100				Wet seam @ 32.2' Wet seam @ 33.3'		30
35	Softer	5		100						35
	Gray fine to coarse sand; Moist to wet; Clayey and silty zones; Trace gravel	6		90						
40										40
45		7		80						45
50	Pebbles									50
	Dark gray shale; Weathered/broken	8		25				Increased resistance		
55	End of boring @ 54.34'							Refusal		55
60										60

Water Level_____ after_____ hrs.

RAPPS

ENGINEERING and APPLIED SCIENCE

821 SOUTH DURKIN – SPRINGFIELD IL 62704 – (217)787-2118

BORING LOG

Site Name: FGDS Development Landfill — Boring No: AW-2

Drilling Firm: Reynolds Drilling Corp. — Drilling Method: HSA — Surface Elev: 526.68

Logged By: KJM — Checked By: KJM — Date Started: 1/2/09 — Completed: 1/2/09

DEPTH	Material Description Classification System	Sampling Tube No.	Type	% Rec.	Tests OVM (ppm)	Qu t/sf PEN	Moist	Comments	Well	DEPTH
0	Dark brown silty clay; Moist; Firm	1	5' CONTINUOUS SAMPLER	100						0
5	Sandy	2		100				Water on bit		5
10	Lt. brown to gray mottled clayey silt; Moist; Firm; Trace sand; Fe oxidation stains	3		100						10
	Dark gray silt; Moist; Firm									
15	Softer; Trace sand	4		100						15
20	Sandy	5		100				Wet seam @ 19' Wet seam @ 20.7'		20
25		6		100						25
30	Gray fine to medium sand									30

Water Level_____ after_____ hrs.

RAPPS

ENGINEERING and APPLIED SCIENCE

821 SOUTH DURKIN – SPRINGFIELD IL 62704 – (217)787-2118

BORING LOG

Site Name: FGDS Development Landfill — Boring No: AW-2

Drilling Firm: Reynolds Drilling Corp. — Drilling Method: HSA — Surface Elev: 526.68

Logged By: KJM — Checked By: KJM — Date Started: 1/2/09 — Completed: 1/2/09

DEPTH	Material Description Classification System	Sampling Tube No.	Type	% Rec.	Tests OVM (ppm)	Qu tsf PEN	Moist	Comments	Well	DEPTH
30	Gravelly @ base End of Boring @ 32.22'	7	5' CONTINUOUS SAMPLER	100				Refusal Broken shale in bit		30
35										35
40										40
45										45
50										50
55										55
60										60

Water Level_____ after_____ hrs.

RAPPS

ENGINEERING and APPLIED SCIENCE

BORING LOG

821 SOUTH DURKIN – SPRINGFIELD IL 62704 – (217)787-2118

Site Name: FGDS Development Landfill — Boring No: AW-3

Drilling Firm: Reynolds Drilling Corp. — Drilling Method: HSA — Surface Elev: 537.75

Logged By: KJM — Checked By: KJM — Date Started: 12/30/08 — Completed: 12/31/08

DEPTH	Material Description Classification System	Sampling: Tube No.	Sampling: Type	Sampling: % Rec.	Tests: OVM (ppm)	Tests: Qu t/sf PEN	Tests: Moist	Comments	Well	DEPTH
0	Dark brown clayey silt; Moist; Firm; Organic debris & plant roots									0
	Gray to brown mottled silty clay; Moist; Firm; Trace sand; Laminated; Fe oxidation stains	1	5' CONTINUOUS SAMPLER	100						
5		2		100						5
10		3		95				Wet seam @ 11.5'		10
15	Gray sandy clay; Moist; Firm; Finely laminated	4		95				Water on rods		15
20										20
	Dark gray sandy silt; Moist; Soft to firm; Some clay	5		80						
25		6		30				No recovery 26.5'–30'		25
30										30

Water Level_____ after_____ hrs.

RAPPS

ENGINEERING and APPLIED SCIENCE

821 SOUTH DURKIN – SPRINGFIELD IL 62704 – (217)787-2118

BORING LOG

Site Name: FGDS Development Landfill — Boring No: AW-3

Drilling Firm: Reynolds Drilling Corp. — Drilling Method: HSA — Surface Elev: 537.75

Logged By: KJM — Checked By: KJM — Date Started: 12/30/08 — Completed: 12/31/08

DEPTH	Material Description Classification System	Sampling Tube No.	Type	% Rec.	Tests OVM (ppm)	Qu t/sf PEN	Moist	Comments	Well	DEPTH
30	Dark gray silt; Trace sand	7	5' CONTINUOUS SAMPLER	100						30
35	Sandy									35
	Gray fine to medium silty sand; Wet; Gravelly @ base	8		100						
40	Gray shale							Broken shale in bit No recovery past 40'		40
	End of Boring @ 41.83'	9		0				Refusal		
45										45
50										50
55										55
60										60

Water Level_____ after_____ hrs.

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light & Power – FGDS Development
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 5,612.8
Easting: 2,130.0

Weather:
Sunny, calm, warm (hi-80's)

Boring Information:
Boring No.: B96-1
Well No.: G-121
Surf. Elev.: 553.80

Depth Information:
Total: 56.70
Auger: 56.70
Core: 0.00

Dates:
Start: 05/17/96
Finish: 05/17/96

Drilling Contractor:
Name: AE Explortation Corp.
City: Springfield, IL
Equipment: CME 75 – 4¼" HSA /w 5 foot continuous barrel sampler.

Personnel:
Geologist: R. Hasenyager
Driller: A. Wiesenhofer
Helper (s): K. Doetzel

Sample Type: ▮ – Continuous Barrel ☒ – Split Spoon ⧄ – Shelby Tube ▮ – Core ☐ – Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
0						2.25		Stickup = 1.87'		Brown with 35% dark brown mottles, dry, firm, silty CLAY, trace sand.		553.80
	1			5.0		2.25		Concrete				
						3.25						550
5						2.75						
						3.00						
	2			5.0		2.25				Brown, moist, firm, silty CLAY, trace sand.		
						2.75				Dark brown with 10% greenish blue mottles, moist, firm, silty CLAY, trace sand.		
						3.00				Brown, moist, firm, silty CLAY, trace sand.		545
10										Dark brown, moist, firm, silty CLAY, trace sand.		
						4.5+						
	3			5.0		3.00						
						2.00						
						3.50						540
15										Black, moist, firm, silty CLAY, trace sand.		
						3.25				Dark brown, moist, firm, silty CLAY, trace sand.		
						4.25						
	4			5.0		4.00				Very dark brown, dry, friable, silty CLAY, trace sand, trace roots. *topsoil*		
						3.00						535
20								High-solids Bentonite Grout		Brown, moist, firm, silty CLAY, trace sand.		

NOTES:

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light & Power – FGDS Development
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 5,612.8
Easting: 2,130.0

Weather:
Sunny, calm, warm (hi-80's)

Drilling Contractor:
Name: AE Explortation Corp.
City: Springfield, IL
Equipment: CME 75 – 4¼" HSA /w 5 foot continuous barrel sampler.

Personnel:
Geologist: R. Hasenyager
Driller: A. Wiesenhofer
Helper (s): K. Doetzel

Boring Information:
Boring No.: B96-1
Well No.: G-121
Surf. Elev.: 553.80

Depth Information:
Total: 56.70
Auger: 56.70
Core: 0.00

Dates:
Start: 05/17/96
Finish: 05/17/96

Sample Type: ▮ – Continuous Barrel ⊠ – Split Spoon ⧄ – Shelby Tube ▮▮ – Core ☐ – Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
						3.00		High-solids Bentonite Grout		Brown, moist, firm, silty CLAY, trace sand.		
	5			5.0		2.00						
						1.75				Brown with 40% greenish brown mottles, moist, soft, silty CLAY, trace sand, trace roots.		
						0.75				Greenish brown, very moist, soft, silty CLAY, trace sand.		530
25						<.50				Light brown with 15% greenish brown mottles, very moist, firm, silty CLAY, trace sand.		
	6			5.0		2.50						
						2.50						
						2.00						525
						2.50						
30						2.00				Light brown with 20% light gray mottles, very moist, soft, silty CLAY, trace sand.		
						<.50						
	7			5.0		1.25						
						1.75						
						3.75				Gray, moist, hard, silty CLAY, with sand.		520
35						1.00				Very dark brown, moist, soft, clayey SILT, trace plant fragments.		
						<.50				Dark gray, moist, soft, clayey SILT, trace plant fragements. *more clayey with depth*		
	8			5.0		<.50				Very dark gray, moist, soft, silty CLAY, with very fine-grained sand.		
						<.50						515
						<.50						
40						<.50						

NOTES:

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light & Power – FGDS Development
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 5,612.8
Easting: 2,130.0

Weather:
Sunny, calm, warm (hi-80's)

Boring Information:
Boring No.: B96-1
Well No.: G-121
Surf. Elev.: 553.80

Depth Information:
Total: 56.70
Auger: 56.70
Core: 0.00

Dates:
Start: 05/17/96
Finish: 05/17/96

Drilling Contractor:
Name: AE Explortation Corp.
City: Springfield, IL
Equipment: CME 75 – 4¼" HSA /w 5 foot continuous barrel sampler.

Personnel:
Geologist: R. Hasenyager
Driller: A. Wiesenhofer
Helper (s): K. Doetzel

Sample Type: ▮ – Continuous Barrel ⊠ – Split Spoon ⧄ – Shelby Tube ▮▮ – Core ☐ – Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture
	9			5.0		1.00	
						1.00	
						1.50	
						1.00	
45						1.00	
	10			5.0		1.00	
						1.00	
50							
	11			5.0			
			IIA				
55					31		
	12			1.6	34 35 48	4.5+	
60							

Borehole Detail: High-solids Bentonite Grout; Bentonite Chips; Filter Pack

Lithology	Description/*Comments*	USC	Elev. (MSL)
	Very dark gray, moist, soft, silty CLAY, with very fine-grained sand.		
	Very dark gray, very moist, soft to firm, sandy/silty CLAY.		510
	Very dark gray, very moist, soft, silty CLAY, with very fine-grained sand.		
	Very dark gray, very moist, soft to firm, sandy/silty CLAY.		505
	Very dark gray, wet, soft, clayey, very fine- to fine-grained SAND.		
	Dark gray, very moist, soft, sandy CLAY.		
	Gray, wet, fine- to medium-grained SAND.		500
	Gray, moist, firm, clayey SILT, with sand and rock fragments.		
	Gray, dry, hard, SHALE.		
	Gray, dry, hard, fine-grained, SANDSTONE.		
	End of Boring = 56.70 feet (497.10' MSL)		495

NOTES:

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light & Power - FGDS Development
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 5,613.2
Easting: 2,305.1

Weather:
Sunny, calm, warm (hi-80's)

Boring Information:
Boring No.: B96-2
Well No.: G-122
Surf. Elev.: 552.70

Depth Information:
Total: 58.40
Auger: 58.40
Core: 0.00

Dates:
Start: 05/20/96
Finish: 05/20/96

Drilling Contractor:
Name: AE Explortation Corp.
City: Springfield, IL
Equipment: CME 75 - 4¼" HSA /w 5 foot continuous barrel sampler.

Personnel:
Geologist: R. Hasenyager
Driller: A. Wiesenhofer
Helper (s): K. Doetzel

Sample Type: ▮ - Continuous Barrel ☒ - Split Spoon ⧄ - Shelby Tube ▮ - Core ☐ - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
0								Stickup = 1.74'				
								Concrete				
	1			4.7		3.50				Brown, moist, firm, silty CLAY, trace sand.		
						3.00				Very dark brown, moist, firm, silty CLAY, trace sand.		550
						3.00						
						4.5+				Brown, moist, hard to firm, silty CLAY, trace sand.		
5						3.50						
	2			5.0		2.50						
						3.00						
						3.00				Very dark brown with 40% brown mottles, moist, firm, silty CLAY, trace sand.		545
						4.5+						
10						4.00						
						3.25				Brown, moist, firm, silty CLAY, trace sand.		
	3			5.0		2.25						
						2.50				Dark brown with 50% brown mottles, moist, firm, silty CLAY, trace sand.		540
						1.25						
15						2.25				Very dark brown, firm, moist, silty CLAY, trace sand.		
						3.50				Brown, moist, soft, silty CLAY, trace sand.		
	4			5.0		4.25				Dark brown, moist, soft, silty CLAY, trace sand.		535
						3.25						
						3.00						
20	5					4.00				Very dark brown, dry, friable, clayey SILT, trace sand.		

High-solids Bentonite Grout

NOTES:

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light & Power – FGDS Development
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 5,613.2
Easting: 2,305.1

Weather:
Sunny, calm, warm (hi-80's)

Boring Information:
Boring No.: B96-2
Well No.: G-122
Surf. Elev.: 552.70

Depth Information:
Total: 58.40
Auger: 58.40
Core: 0.00

Dates:
Start: 05/20/96
Finish: 05/20/96

Drilling Contractor:
Name: AE Explortation Corp.
City: Springfield, IL
Equipment: CME 75 – 4¼" HSA /w 5 foot continuous barrel sampler.

Personnel:
Geologist: R. Hasenyager
Driller: A. Wiesenhofer
Helper (s): K. Doetzel

Sample Type: ▮ – Continuous Barrel ☒ – Split Spoon ⧄ – Shelby Tube ▮ – Core ☐ – Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
	5			5.0		2.00 2.50 3.00		High-solids Bentonite Grout		Very dark brown, dry, friable, clayey SILT, trace sand.		530
25						3.00 2.75				Black, dry to slightly moist, friable, clayey SILT, trace sand.		
	6			5.0		2.25 1.00 <.50				Very dark brown, moist, firm to soft, silty CLAY, trace sand.		525
						<.50				Dark brown, very moist, soft, silty CLAY, trace sand.		
30						<.50 <.50				Brownish gray, very moist, soft, silty CLAY, trace sand.		
	7			5.0		<.50 1.00 1.00						520
						1.00				Gray with 25% reddish brown mottles, very moist, soft, silty CLAY, trace sand.		
35						1.00 1.50						
	8			5.0		<.50 1.25						515
						1.25						
40	9					1.00						

NOTES:

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light & Power - FGDS Development
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 5,613.2
Easting: 2,305.1

Weather:
Sunny, calm, warm (hi-80's)

Drilling Contractor:
Name: AE Explortation Corp.
City: Springfield, IL
Equipment: CME 75 - 4¼" HSA /w 5 foot continuous barrel sampler.

Personnel:
Geologist: R. Hasenyager
Driller: A. Wiesenhofer
Helper (s): K. Doetzel

Boring Information:
Boring No.: B96-2
Well No.: G-122
Surf. Elev.: 552.70

Depth Information:
Total: 58.40
Auger: 58.40
Core: 0.00

Dates:
Start: 05/20/96
Finish: 05/20/96

Sample Type: ▮ - Continuous Barrel ⊠ - Split Spoon ⧄ - Shelby Tube ▮ - Core □ - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
										Gray with 25% reddish brown mottles, very moist, soft, silty CLAY, trace sand.		
						1.25				Gray, very moist, soft, silty CLAY, with very fine-grained sand.		
	9			5.0		1.00						
						1.00				Gray, very moist, soft, sandy CLAY.		
										Dark gray, moist, soft to firm, silty CLAY.		510
						<.50				Gray, wet, soft, silty, very fine- to fine-grained SAND.		
45										Dark gray, moinst, soft, silty CLAY, trace sand.		
						1.50		High-solids Bentonite Grout				
	10			5.0		2.00		Bentonite Chips		Gray, moist, soft, clayey SILT, trace sand.		
			10A							Gray, wet, soft, fossiliferous, fine- to medium-grained SAND. *Small (3-7 mm.)* Bivalvia *and* Gastropoda.		505
						1.00				Gray, very moist, soft, clayey SILT, trace sand.		
50										Gray, wet, soft, fine- to very coarse-grained, SAND, with shell fragments.		
	11			3.0				Filter Pack and/or Formation Sand		Gray, very moist, soft, clayey SILT, with sand.		
			11A							Bluish gray, moist, soft, silty CLAY.		
										Gray, wet, soft, fine- to very coarse-grained, SAND, with shell fragments.		500
										Gray, wet, soft, fine- to medium-grained, SAND, with shell fragments.		
55					3							
	12		12A	2.0	10							
					12							
					10							
	13			1.7	0					Dark gray, moist, soft, silty CLAY, trace sand.		
					3							495
					4							
					23					Gray, dry, hard, SHALE.		
60										*End of Boring = 58.70 feet (494.00' MSL)*		

NOTES:

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light & Power – FGDS Development
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 5,615.9
Easting: 2,481.5

Weather:
Sunny, calm, warm (hi-80's)

Boring Information:
Boring No.: B96-3
Well No.: G-123
Surf. Elev.: 552.20
Depth Information:
Total: 57.80
Auger: 57.80
Core: 0.00
Dates:
Start: 05/16/96
Finish: 05/16/96

Drilling Contractor:
Name: AE Explortation Corp.
City: Springfield, IL
Equipment: CME 75 – 4¼" HSA /w 5 foot continuous barrel sampler.

Personnel:
Geologist: R. Hasenyager
Driller: A. Wiesenhofer
Helper (s): K. Doetzel

Sample Type: Continuous Barrel – Split Spoon – Shelby Tube – Core – Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
								Stickup = 1.70'		Dark brown, moist, firm, silty CLAY, trace sand.		
								Concrete		Brown, moist, firm, silty CLAY, trace sand.		
										Dark brown, moist, firm, silty CLAY, trace sand.		
	1			4.9		3.00						
						4.00				Brown with 10% dark brown mottles, moist, firm, silty CLAY, trace sand.		
5										Dark brown, moist, firm, silty CLAY, trace sand.		550
						3.00						
	2			5.0		2.50						
						2.00						545
						1.50				Brown, moist, soft, silty CLAY, trace sand.		
10										Dark brown, moist, soft, silty CLAY, trace sand.		
						1.75				Brown, moist, soft, silty CLAY, trace sand.		
						1.75						
	3			5.0		2.50				Yellowish brown, moist, soft, silty CLAY, trace sand, trace fly ash.		540
						2.00				Dark brown with 30% greenish blue mottles, very moist, soft, silty CLAY, trace sand.		
15										Dark brown, very moist, soft, silty CLAY, trace sand.		
						3.25						
						4.00				Yellowish brown, slightly moist, hard, silty CLAY, trace sand.		
	4			5.0		3.75						535
						4.00				Dark brown, very moist, soft, silty CLAY, trace sand.		
										Yellowish brown, slightly moist, friable, silty CLAY, trace sand.		
20								High-solids Bentonite Grout		Dark brown, moist, firm, silty CLAY, trace sand.		

NOTES:

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light & Power - FGDS Development
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 5,615.9
Easting: 2,481.5

Weather:
Sunny, calm, warm (hi-80's)

Boring Information:
Boring No.: B96-3
Well No.: G-123
Surf. Elev.: 552.20
Depth Information:
Total: 57.80
Auger: 57.80
Core: 0.00
Dates:
Start: 05/16/96
Finish: 05/16/96

Drilling Contractor:
Name: AE Explortation Corp.
City: Springfield, IL
Equipment: CME 75 - 4¼" HSA /w 5 foot continuous barrel sampler.

Personnel:
Geologist: R. Hasenyager
Driller: A. Wiesenhofer
Helper (s): K. Doetzel

Sample Type: - Continuous Barrel - Split Spoon - Shelby Tube - Core - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
						3.00				Black, moist, firm, silty CLAY, trace sand, trace fly ash, trace plant fragments.		
						3.50				Black, moist, firm, silty CLAY, trace sand.		
5	5			5.0		1.25						530
						1.00				Black, moist, soft, clayey SILT, trace sand.		
						1.00				Black, moist, soft, silty CLAY, trace sand.		
25						<.50						
						<.50				Dark brown, moist, soft, silty CLAY, trace sand.		
	6			5.0		<.50						525
						<.50				Brown, very moist, soft, silty CLAY, trace sand.		
						<.50				Gray, very moist, soft, silty, very fine- to fine-grained SAND.		
30						<.50				Brown, very moist, soft, silty CLAY, trace sand.		
						<.50				Gray, wet, soft, silty, very fine- to fine-grained SAND.		
	7			4.3						Gray, very moist, soft, silty CLAY, with sand.		520
						<.50				Gray, very moist, soft, clayey SILT, with sand and plant fragments.		
35										*Peat layer at 35.5'-35.6'*		
						<.50						
	8			5.0		<.50				Gray, very moist, soft, sandy SILT, trace organic matter.		515
										Gray, very moist, soft, silty CLAY, with sand and plant fragments.		
40										Gray, wet, fine-grained SAND.		

Borehole Detail: High-solids Bentonite Grout; Bentonite Chips; Filter Pack

NOTES:

Andrews Environmental Engineering, Inc.

3535 Mayflower Boulevard, Springfield, IL 62707 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light & Power - FGDS Development
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEEI No.: 93-118

Location:
Coord. System: Site Grid
Northing: 5,615.9
Easting: 2,481.5

Weather:
Sunny, calm, warm (hi-80's)

Boring Information:
Boring No.: B96-3
Well No.: G-123
Surf. Elev.: 552.20
Depth Information:
Total: 57.80
Auger: 57.80
Core: 0.00
Dates:
Start: 05/16/96
Finish: 05/16/96

Drilling Contractor:
Name: AE Explortation Corp.
City: Springfield, IL
Equipment: CME 75 - 4¼" HSA /w 5 foot continuous barrel sampler.

Personnel:
Geologist: R. Hasenyager
Driller: A. Wiesenhofer
Helper (s): K. Doetzel

Sample Type: - Continuous Barrel - Split Spoon - Shelby Tube - Core - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
										Gray, wet, fine-grained SAND.		
										Gray, wet, fine-grained SAND, trace plant fragments.		
										Gray, very moist, soft, silty CLAY, with sand.		510
	9		9A	2.1						Gray, wet, fine-grained SAND, trace *Gastropoda* fossils.		
45												
										Gray, wet, very fine- to fine-grained SAND, trace coarse sand and shale fragments.		
	10		10A	3.0								505
50												
	11		11A	3.6						Brown, wet, medium- to very coarse-grained SAND, trace shale and sandstone fragments.		500
55					31							
	12			1.5	34 35 48							
	13			0.8						Gray, dry, hard, SHALE		495
										Gray, dry, hard, fine-grained, SANDSTONE.		
60										*End of Boring = 57.80 feet (494.40' MSL)*		

Filter Pack

Bentonite Chips

NOTES:

APPENDIX A3:
IMPOUNDMENT WELL BORING LOGS

Professional Service Industries, Inc.
480 North Street
Springfield, Illinois 62704
Telephone: 217/544-6663
Fax: 217/544-6143

LOG OF BORING AP-1

PSI Job No.: 0020522
Project: Piezometer Installation
Location: CWLP Ash Pond
East Lake Shore Drive
Springfield, Illinois

Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: CME Automatic; ETR = 86%
Boring Location: See attached boring location plan.

WATER LEVELS

While Drilling	9 feet
Upon Completion	N/A
Delay	N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			1	18	Dark brown silty CLAY, very stiff, slightly moist	CL	7-8-9 N_{60}=24		
	5			2	18	Dark brown clayey SILT, stiff, slightly moist	ML	5-5-5 N_{60}=14		
				3	18	Gray clayey SILT, trace brown, firm, moist		2-2-3 N_{60}=7		
	10			4	18		ML	2-2-3 N_{60}=7		
				5	18			1-2-2 N_{60}=6		
	15			6	18	Gray silty CLAY, few brown sand, firm, saturated	CL	1-2-2 N_{60}=6		
				7	18	Gray sandy CLAY, stiff, saturated	CLS	4-3-4 N_{60}=10		
	20			8	18	Blue-gray clayey SILT, soft to very stiff, moist to saturated		3-3-4 N_{60}=10		
	25			9	18		ML	1-2-1 N_{60}=4		
	30			10	18	Gray SAND with SILT, medium dense/very stiff, saturated	SW-SM	6-7-6 N_{60}=19		
				11	6	Gray SHALE, hard, slightly moist	CL	50/6"		
						Boring terminated ay -31.5'				
	35									

STANDARD PENETRATION TEST DATA
N in blows/ft
Moisture, PL, LL: 0 — 25 — 50
STRENGTH, tsf: Qu, Qp: 0 — 2.0 — 4.0

Well Diagram: J-Plug; Concrete Cap; 2" PVC Solid Riser; Bentonite Seal; Sand Filter Pack; 0.01" PVC Slotted Well Screen

Completion Depth: 35.0 ft
Date Boring Started: 4/21/10
Date Boring Completed: 4/21/10
Logged By: Rob Preuss
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting; Split-Spoon; Rock Core; Shelby Tube; Hand Auger; Texas Cone

Latitude:
Longitude:
Drill Rig: ATV D50
Remarks: N_{60} denotes the normalization to 60% efficiency as described in ASTM D4633. Moistures determined by visual methods.

The stratification lines represent approximate boundaries. The transition may be gradual.

Professional Service Industries, Inc.
480 North Street
Springfield, Illinois 62704
Telephone: 217/544-6663
Fax: 217/544-6143

LOG OF BORING AP-2

PSI Job No.: 0020522
Project: Piezometer Installation
Location: CWLP Ash Pond
East Lake Shore Drive
Springfield, Illinois

Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: CME Automatic; ETR = 86%
Boring Location: See attached boring location plan.

WATER LEVELS

While Drilling	9 feet
Upon Completion	N/A
Delay	N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ● × Moisture ◪ PL ✙ LL (0 - 25 - 50) STRENGTH, tsf ▲ Qu ✳ Qp (0 - 2.0 - 4.0)	Additional Remarks	Well Diagram
	0			1	10	Dark brown silty CLAY, some sand, stiff, slightly moist (FILL)	CL	4-4-6 N_{60}=14				J-Plug
	5			2	8	Dark brown silty CLAY, soft to firm, moist	CL	2-2-2 N_{60}=6				Concrete Cap
				3	6	Gray silty CLAY, soft to firm, moist	CL	1-1-2 N_{60}=4				2" PVC Solid Riser
	10			4	18	Gray clayey SILT, soft to firm, saturated		2-2-2 N_{60}=6				Bentonite Seal
				5	18		ML	2-1-1 N_{60}=3				Sand Filter Pack
	15			6	18			2-1-2 N_{60}=4				0.01" PVC Slotted Well Screen
				7	18	Light gray SAND, dense, saturated	SP	4-9-16 N_{60}=36				
	20			8	14	Gray SHALE, hard, slightly moist Boring terminate at -20'	CL	19-24-50/2"				

Completion Depth: 20.0 ft
Date Boring Started: 4/21/10
Date Boring Completed: 4/21/10
Logged By: Rob Preuss
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting, Split-Spoon, Rock Core, Shelby Tube, Hand Auger, Texas Cone

Latitude:
Longitude:
Drill Rig: ATV D50
Remarks: N_{60} denotes the normalization to 60% efficiency as described in ASTM D4633. Moistures determined by visual methods.

The stratification lines represent approximate boundaries. The transition may be gradual.

Professional Service Industries, Inc.
480 North Street
Springfield, Illinois 62704
Telephone: 217/544-6663
Fax: 217/544-6143

LOG OF BORING AP-3

Sheet 1 of 1

PSI Job No.: 0020522
Project: Piezometer Installation
Location: CWLP Ash Pond
East Lake Shore Drive
Springfield, Illinois

Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: CME Automatic; ETR = 86%
Boring Location: See attached boring location plan.

WATER LEVELS
While Drilling: None feet
Upon Completion: N/A
Delay: N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks	Well Diagram
	0		SS	1	18	Dark brown silty CLAY, very stiff, slightly moist	CL	6-7-8 N_{60}=21			J-Plug
	5		SS	2	18	Gray/brown clayey SILT, soft to stiff, moist to saturated	ML	3-3-4 N_{60}=10			Concrete Cap
			SS	3	18			1-1-1 N_{60}=3			2" PVC Solid Riser
	10		SS	4	18	Gray clayey SILT, soft to very stiff, saturated		2-1-2 N_{60}=4			Bentonite Seal
			SS	5	18			2-2-4 N_{60}=9			Sand Filter Pack
	15		SS	6	16		ML	2-2-4 N_{60}=9			0.01" PVC Slotted Well Screen
			SS	7	18			4-4-6 N_{60}=14			
	20		SS	8	10	Gray SHALE, hard, slightly moist Boring terminated at -19.5	CL	32-50/3"			

STANDARD PENETRATION TEST DATA
N in blows/ft
Moisture PL LL
0 25 50
STRENGTH, tsf
Qu Qp
0 2.0 4.0

Completion Depth: 20.0 ft
Date Boring Started: 4/21/10
Date Boring Completed: 4/21/10
Logged By: Rob Preuss
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Shelby Tube
Hand Auger
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV D50
Remarks: N_{60} denotes the normalization to 60% efficiency as described in ASTM D4633. Moistures determined by visual methods

The stratification lines represent approximate boundaries. The transition may be gradual.

Professional Service Industries, Inc.
480 North Street
Springfield, Illinois 62704
Telephone: 217/544-6663
Fax: 217/544-6143

LOG OF BORING AP-4

Sheet 1 of 1

PSI Job No.: 0020522
Project: Piezometer Installation
Location: CWLP Ash Pond
East Lake Shore Drive
Springfield, Illinois

Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: CME Automatic; ETR = 86%
Boring Location: See attached boring location plan.

WATER LEVELS

While Drilling	11 feet
Upon Completion	N/A
Delay	N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0		SS	1	17	Brown silty CLAY, some brown sand, firm to stiff, slightly moist (FILL)	CL	4-4-3 N_{60}=10		
	5		SS	2	18	Brown silty CLAY, trace roots, firm to stiff, moist (FILL)	CL	4-3-2 N_{60}=7		
			SS	3	10	Brown SILT, trace gray, firm to stiff, moist (FILL)	ML	6-3-2 N_{60}=7		
	10		SS	4	12	5" Brown SAND transitioning to Black FLY ASH at 9.4', stiff to very stiff, slightly moist (FILL)		2-2-4 N_{60}=9		
			SS	5	18		SAND/FLY ASH	2-2-2 N_{60}=6		
	15		SS	6	16			2-1-1 N_{60}=3		
			SS	7	16	Black FLY ASH, some fine sub-round gravel, stiff to very stiff, moist to saturated (FILL)	FLY ASH	6-6-5 N_{60}=16		
	20		SS	8	18	Gray/green (organic?) CLAY, stiff, trace fine sand, moist to saturated	CL	3-3-3 N_{60}=9		
	25		SS	9	1			3-3-4 N_{60}=10		
	30		SS	10	18	Brown/gray silty CLAY, fiorm to stiff, saturated	CL	2-2-3 N_{60}=7		
	35		SS	11	18	Gray SILT, stiff to very stiff, saturated		3-3-4 N_{60}=10		
	40		SS	12	18		ML	4-4-4 N_{60}=11		
	45		SS	13	18			4-4-6 N_{60}=14		
	50		SS	14	18	Gray fine to coarse SAND, medium dense, saturated		4-5-7 N_{60}=17		
	55		SS	15	18		SW	5-5-7 N_{60}=17		
	60		SS	16	1	Gray SHALE, hard, moist	CL	50/1"		
						Boring terminated at -60'				

STANDARD PENETRATION TEST DATA
N in blows/ft
Moisture PL LL
0 25 50
STRENGTH, tsf
Qu Qp
0 2.0 4.0

Well Diagram: J-Plug; Concrete Cap; 2" PVC Solid Riser; Bentonite Seal; Sand Filter Pack; 0.01" PVC Slotted Screen

Completion Depth: 60.0 ft
Date Boring Started: 4/20/10
Date Boring Completed: 4/20/10
Logged By: Rob Preuss
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Shelby Tube
Hand Auger
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV D50
Remarks: N_{60} denotes the normalization to 60% efficiency as described in ASTM D4633. Moistures determined by visual methods.

The stratification lines represent approximate boundaries. The transition may be gradual.

Andrews Engineering, Inc.

3300 Ginger Creek Drive, Springfield, IL 62711 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, & Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEEI No.: 2011-127

Location:
Coord. System: Site Grid
Northing: 5132.40
Easting: 831.70

Weather:
Cloudy; 38° F; West 10-15 MPH

Boring Information:
Boring No.: AP-1R
Well No.: AP-1R
Surf. Elev.: 533.10

Depth Information:
Total: 32.50
Auger: 32.50
Core:

Dates:
Start: 1/30/2012
Finish: 1/30/2012

Drilling Contractor:
Name: Terra Drill, Inc.
City: Dupo, IL
Equipment: CME 550 with 4¼" I.D. HSA and 5' CB

Personnel:
Geologist: M. Hewitt
Driller: J. Brown
Helper (s): J. Horn

Sample Type: ▯ - Continuous Barrel ☒ - Split Spoon ⧄ - Shelby Tube ▮▯ - Core ▯ - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
								Slickup = 2.50'				
	1			NA				Concrete		Dark brown silty CLAY; very stiff; slightly moist	CL	
										Dark brown clayey SILT; stiff; slightly moist	ML	530
5	2			NA						Gray clayey SILT; trace brown; firm; moist	ML	525
10	3			NA				Bentonite Grout				
												520
										Gray silty CLAY; few brown sand; firm; saturated	CL	
15	4			NA				Bentonite Chips		Gray sandy CLAY; stiff; saturated	SC	
												515
	5							Silica Sand		Blue-gray clayey SILT; soft to very stiff; moist to saturated	ML	
20												

NOTES: AP-1R blind-drilled to 19.0 ft bgs
Geology from 0-19.0 ft bgs based on AP-1 log

Andrews Engineering, Inc.

3300 Ginger Creek Drive, Springfield, IL 62711 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, & Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEEI No.: 2011-127

Location:
Coord. System: Site Grid
Northing: 5132.40
Easting: 831.70

Weather:
Cloudy; 38° F; West 10-15 MPH

Boring Information:
Boring No.: AP-1R
Well No.: AP-1R
Surf. Elev.: 533.10

Depth Information:
Total: 32.50
Auger: 32.50
Core:

Dates:
Start: 1/30/2012
Finish: 1/30/2012

Drilling Contractor:
Name: Terra Drill, Inc.
City: Dupo, IL
Equipment: CME 550 with 4¼" I.D. HSA and 5' CB

Personnel:
Geologist: M. Hewitt
Driller: J. Brown
Helper (s): J. Horn

Sample Type: ▯ - Continuous Barrel ⊠ - Split Spoon ⁄ - Shelby Tube ▯▯ - Core ☐ - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
										(Cont'd) Blue-gray clayey SILT; soft to very stiff; moist to saturated	ML	
	5			100%								
												510
25										Gray SAND with silt; medium dense; saturated	SM	
	6			100%				Silica Sand				
										Dark gray SAND and GRAVEL; loose; saturated	SW	505
30	7			100%								
										Dark gray SHALE; weathered; dense; moist	CL	
										End of Boring = 32.5 '		500
35												
												495
40												

NOTES: AP-1R blind-drilled to 19.0 ft bgs
Geology from 0-19.0 ft bgs based on AP-1 log

Andrews Engineering, Inc.

3300 Ginger Creek Drive, Springfield, IL 62711 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, & Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEEI No.: 2011-127

Location:
Coord. System: Site Grid
Northing: 4184.70
Easting: 725.50

Weather:
Cloudy; 38° F; West 10-15 MPH

Boring Information:
Boring No.: AP-2R
Well No.: AP-2R
Surf. Elev.: 533.10

Depth Information:
Total: 18.50
Auger: 18.50
Core:

Dates:
Start: 1/31/2012
Finish: 1/31/2012

Drilling Contractor:
Name: Terra Drill, Inc.
City: Dupo, IL
Equipment: CME 550 with 4¼" I.D. HSA and 5' CB

Personnel:
Geologist: M. Hewitt
Driller: J. Brown
Helper (s): J. Horn

Sample Type: Continuous Barrel; Split Spoon; Shelby Tube; Core; Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
0								Stickup = 2.50'				
								Concrete				
	1			NA				Grout		Dark brown silty CLAY; some sand; stiff; slightly moist		
								Bentonite Chips		Dark brown silty CLAY; soft to firm; moist	CL	530
5												
	2			NA						Gray silty CLAY; soft to firm; moist	CL	525
10										Gray clayey SILT; very soft; moist to wet		
	3			70%				Silica Sand			ML	520
15												
	4			100%						Light gray SAND; dense; saturated	SP	
										Gray SHALE; hard; slightly moist	CL	515
20										*End of Boring = 18.5'*		

NOTES: AP-2R blind-drilled to 10.0 ft bgs
Geology from 0-10.0 ft bgs based on AP-1 log

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEI No.: 160192

Location:
Coord. System: Site Grid
Northing: 4185.2
Easting: 735.9

Weather: Sunny, 40F

Boring Information:
Boring No: AP-2A
Well No: AP-2A
Surf Elev.: 533.6

Depth Information:
Total: 19.0
Auger: 19.0
Core:

Dates:
Start: 2/16/16
Finish: 2/16/16

Drilling Contractor:
Contractor Name: Bulldog Drilling
City: Dupo, IL
Equipment: AMS Powerprobe w/ 4.25" HSA and 5' MC

Personnel:
Geologist: C. Myrvold
Driller: J. Edwards
Helper(s): Z. Strickland

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	533.6
	1						Blind drilled to 9.0 feet. For detailed geology refer to the original log for AP-2R	530.0
5								525.0
10	2		3.2/4				Gray CLAYEY SILT; moist to wet; moderately loose	
15	3		4.0/4					520.0
	4		2.0/2				Light gray SAND; fine to medium grained; saturated; some gravel Gray SHALE; weathered; hard; slightly moist	515.0
20							End of Boring = 19 Feet	

Notes:

Andrews Engineering, Inc.

3300 Ginger Creek Drive, Springfield, IL 62711 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, & Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEEI No.: 2011-127

Location:
Coord. System: Site Grid
Northing: 3164.10
Easting: 3203.10

Weather:
Cloudy; 38° F; West 10-15 MPH

Boring Information:
Boring No.: AP-5
Well No.: AP-5
Surf. Elev.: 581.6

Depth Information:
Total: 49.0
Auger: 49.0
Core:

Dates:
Start: 2/1/2012
Finish: 2/1/2012

Drilling Contractor:
Name: Terra Drill, Inc.
City: Dupo, IL
Equipment: CME 550 with 4¼" I.D. HSA
5' CB and 2' SS

Personnel:
Geologist: M. Hewitt
Driller: J. Brown
Helper (s): J. Horn

Sample Type: - Continuous Barrel - Split Spoon - Shelby Tube - Core - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
0								Slickup = 2.50'				0
	1			100%				Concrete		Dark yellowish brown silty CLAY; very firm; moist; some dark brown mottling; trace organics	CL	
5												-5
	2			76%				Bentonite Grout		Olive brown clayey SILT; moderately soft; moist; some dark yellowish brown mottling		
										grades dark yellowish brown; clay content increasing	ML	
10												-10
	3			100%						Olive brown silty CLAY; very firm; moist; trace coarse sand; few iron concretions; some dark yellowish brown mottling	CL	
15												-15
	4			100%				Bentonite Chips		some gravel		
								Silica Sand		Dark yellowish brown sandy CLAY; some gravel; very soft; moist to wet	SC	
20	5			100%						Dark yellowish brown clayey SILT with sand and gravel; firm; moist	ML-SM	-20

NOTES:

Andrews Engineering, Inc.

3300 Ginger Creek Drive, Springfield, IL 62711 (217) 787-2334

Field Boring Log

Site Information:
Name: City Water, Light, & Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEEI No.: 2011-127

Location:
Coord. System: Site Grid
Northing: 3164.10
Easting: 3203.10

Weather:
Cloudy; 38° F; West 10-15 MPH

Boring Information:
Boring No.: AP-5
Well No.: AP-5
Surf. Elev.: 581.6

Depth Information:
Total: 49.0
Auger: 49.0
Core:

Dates:
Start: 2/1/2012
Finish: 2/1/2012

Drilling Contractor:
Name: Terra Drill, Inc.
City: Dupo, IL
Equipment: CME 550 with 4¼" I.D. HSA
5' CB and 2' SS

Personnel:
Geologist: M. Hewitt
Driller: J. Brown
Helper (s): J. Horn

Sample Type: ▯ - Continuous Barrel ⊠ - Split Spoon ⧄ - Shelby Tube ▮▯ - Core ▯ - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
	5	⊠						Silica Sand		(Cont'd) Dark yellowish brown clayey SILT with sand and gravel; firm; moist	ML-SM	-20
	6	⊠		100%						Dark yellowish brown SAND; coarse-grained; loose; wet	SP	
25	7	▮▯		100%						Yellowish gray clayey SILT with sand; trace gravel; very hard; moist	ML	-25
	8	▮▯		100%						Gray silty SAND with clay; some gravel; soft; wet	SM	
30	9	⊠		90%				Bentonite Chips		Gray clayey SILT; some gravel; very hard; moist		-30
	10	▮▯		100%						some shale and coal fragments	ML	
35	11	▮▯										-35
										Light gray silty SAND; some gravel; trace chert; rounded; moderately firm; moist	SM	
40												-40

NOTES:

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Field Boring Log

Site Information:
Name: City Water, Light, & Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEEI No.: 2011-127

Location:
Coord. System: Site Grid
Northing: 3164.10
Easting: 3203.10

Weather:
Cloudy; 38° F; West 10-15 MPH

Drilling Contractor:
Name: Terra Drill, Inc.
City: Dupo, IL
Equipment: CME 550 with 4¼" I.D. HSA
5' CB and 2' SS

Personnel:
Geologist: M. Hewitt
Driller: J. Brown
Helper (s): J. Horn

Boring Information:
Boring No.: AP-5
Well No.: AP-5
Surf. Elev.: 581.6

Depth Information:
Total: 49.0
Auger: 49.0
Core:

Dates:
Start: 2/1/2012
Finish: 2/1/2012

Sample Type: Continuous Barrel - Split Spoon - Shelby Tube - Core - Blind Drill

Depth (ft.)	Run No.	Sample Type	Sample No.	Sample Recov.	Blow Count	q_p [q_s] (in tsf)	% Moisture	Borehole Detail	Lithology	Description/*Comments*	USC	Elev. (MSL)
												581.6
	11									Dark gray silty CLAY; some gravel; some shale fragments; trace coal fragments; very firm; moist	SM / CL	
45	12			100%				Bentonite Chips				-45
										Gray SHALE; hard; moist	CL	
	13			55%								
										End of Boring = 49.0 '		
50												-50
55												-55
60												-60

NOTES:

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.:

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: sunny, 73 deg

Boring Information:
Boring No: TW3E
Well No: TW3E
Surf Elev.: 0

Depth Information:
Total: 40.5'
Auger: 40.5'
Core: -

Dates:
Start: 06/27/2017
Finish: 06/27/2017

Drilling Contractor:
Contractor Name: Bulldog Drilling
City: Dupo
Equipment: 4.25" HSA, CME 55, 5' Continuous Macrocore

Personnel:
Geologist: D. Ghosh
Driller: J. Gates
Helper(s): C. Clines

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0	1		4.5/5				**CLAYEY SILT** dark brown, iron oxidation staining, moist, firm to hard, moderate cementation, with root structure	
5	2		5.0/5				**SILT** brown to gray, iron oxidation, moist, 2" wet seam at 12', firm, moderate cementation, blocky, some clay	-5.0
10	3		5.0/5				**SILT** gray, firm to hard, trace fine grained sand sandy 14.5-15'	-10.0
15	4		4.5/5				**SILTY CLAY** dark gray, moist to wet, soft to firm, strong cementation, laminated, some wood fragments	-15.0
20								-20.0

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: TW3E Boring No: TW3E Well No: TW3E

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		5.0/5				cont: dark gray, moist to wet, soft to firm, strong cementation, laminated, some wood fragments	
								-25
26							**SILTY CLAY** dark gray, till, moist to wet, soft to firm, moderate cementation, trace fine grained sand and gravel	
	6		3.0/5					
								-30
31								
	7		4.5/5					
							SANDY SILT fine grained sand	-35
36								
							SILTY SAND gray, fine to medeium grained, wet	
	8		4.0/5.5				medium to coarse grained, trace fine grained, angular	
							SHALE	-40
41							End of Boring = 40.5 Feet	

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.:

Location:
Coord. System: Site Coordinates
Northing: 5613.3
Easting: 1737.4

Weather: rain, 55 deg; sunny, 73 deg

Boring Information:
Boring No: TW3N
Well No: RW-3
Surf Elev.: 536.8

Depth Information:
Total: 41.6'
Auger: 41.6'
Core: -

Dates:
Start: 06/26/2017
Finish: 06/27/2017

Drilling Contractor:
Contractor Name: Bulldog Drilling
City: Dupo
Equipment: 4.25" HSA, CME 55, 5' Continuous Macrocore

Personnel:
Geologist: D. Ghosh
Driller: J. Gates
Helper(s): C. Clines

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	536.8
0	1		3.5/5				**SILTY CLAY** dark brown, pervasive iron oxidation staining, dry (moist below 3'), firm to hard, moderate cementation, with root structure	535.0
5	2		5.0/5				**SILTY CLAY** light tan, moist, moderate cementation, blocky **SILT** brown to gray, mottling, iron oxidation staining, moist, firm, moderate cementation	530.0
10	3		4.5/5				**SAND** sand lens, with silt, wet, trace clay **SANDY SILT** brown to gray, laminated, some wood fragments, trace coarse sand, coal and roots	525.0
15	4		5.0/5				**SILTY CLAY** gray, wet to moist, very soft, strong cementation, laminated, some wood fragments, trace fine sand	520.0
20							**SILTY CLAY** dark gray, wet, very soft, strong cementation, homogeneous	

Notes:

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FIELD BORING LOG

Boring Information: RW-3 Boring No: TW3N Well No: RW-3

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							cont: dark gray, wet, very soft, strong cementation, homogeneous	
	5		3.0/5					515
26								
	6		4.0/5				**SILTY CLAY** dark gray, till, moist, firm to hard, trace coarse and fine gravel, trace coal	510
31								
	7		4.5/5					505
							SANDY SILT	
36								
	8		5.0/5				**SILTY SAND** gray, fine to medium graineed, wet, trace angular gravel	500
							SHALE weathered	
41	9							
							End of Boring = 41.6 Feet	495

Notes:

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FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.:

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: rain, 55 deg

Boring Information:
Boring No: TW3W
Well No: TW3W
Surf Elev.: 536.80

Depth Information:
Total: 23.8'
Auger: 23.8'
Core: -

Dates:
Start: 06/26/2017
Finish: 06/26/2017

Drilling Contractor:
Contractor Name: Bulldog Drilling
City: Dupo
Equipment: 4.25" HSA, CME 55, 5' Continuous Macrocore

Personnel:
Geologist: D. Ghosh
Driller: J. Gates
Helper(s): C. Clines

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0							**SILTY CLAY** dark brown, dry, firm to hard, moderate cementation, root structure in upper 2 feet	
	1		4.5/5				high clay content, moist, soft to firm, blocky iron oxidation spots	
5								-5.0
	2		4.5/5				**SILT** brown to gray, iron oxidation pervasive, moist, soft to firm, moderate cementation, some clay very soft	
10							**SILTY SAND** brown, fine to medium grained sand, wet, poor cementation, moderately sorted, trace clay	-10.0
	3		4.0/5				**CLAYEY SAND** brown to dark gray, with gravel, coarse grained towards bottom, wet, strong cementation, poorly sorted	
15							**SILTY CLAY** dark gray, with coal fragments, moist, very soft, strong cementation, homogeneous appearance, coal content high at 19-19.5'	-15.0
	4		4.5/5					
20							**SILTY CLAY** blue gray, till, wet, soft, moderate cementation, homogeneous appearance, trace coarse sand and gravel	-20.0
	5		2.8/3.8				light tan, silty from 22-22.5'	
							SANDY SHALE	
							End of Boring = 23.8 Feet	

Notes: Borehole refusal at 23.8'.

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: Springfield, IL
County: Sangamon
Site No.:
AEEI No.: 180247

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: 65, overcast

Boring Information:
Boring No: GP1
Well No: GP1
Surf Elev.: 537.06

Depth Information:
Total: 40.0'
Auger: 40.0'
Core: N/A

Drilling Contractor:
Contractor Name: Bulldog Drilling
City: Dupo, IL
Equipment: CME 55cc 4.25" HSA w/ 5' MC and 2' SS

Personnel:
Geologist: B. Kenning
Driller: C. Clines
Helper(s): D. Smith

Dates:
Start: 6/14/2019
Finish: 6/14/2019

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Sample Run No.	Sample Type	Sample Recov.	Blow Count	Lithology	Description/Comments	Elev. (MSL)
0						Ground Surface	0.0
						Brown clayey TOPSOIL.	
						Light brown to gray silty CLAY, moist, stiff.	
	1		4.2				
5							-5.0
	2		2.2				
10							-10.0
	3		4.6				
15							-15.0
						Gray clayey SILT, moist to wet, moderately stiff.	
	4		4.3				
20							-20.0
	5		4.2				
						Brown/gray silty CLAY, moist, moderately stiff, contains coal fragments.	
						Gray clayey SILT, moist to wet, moderately stiff.	
25							-25.0

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: GP1 Boring No: GP1 Well No: GP1

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Sample Run No.	Sample Type	Sample Recov.	Blow Count	Lithology	Description/Comments	Elev. (MSL)
	6		3.7				
30							-30
	7		3.7			Gray SAND, fine-grained, wet, loose.	
35							-35
	8		4.1			Gray SAND, fine to medium-grained, wet, loose, trace gravel.	
						Gray SAND, medium to coarse-grained, wet, loose, trace gravel.	
40						Gray SHALE, weathered, moist, soft.	-40
						End of Boring = 40 Feet	
45							-45
50							-50

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: Springfield, IL
County: Sangamon
Site No.:
AEEI No.: 180247

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: 60, partly cloudy, light breeze

Boring Information:
Boring No: GP2
Well No: GP2 /AP-7
Surf Elev.: 425-25

Depth Information:
Total: 40.0'
Auger: 40.0'
Core: N/A

Drilling Contractor:
Contractor Name: Bulldog Drilling
City: Dupo, IL
Equipment: CME 55cc 4.25" HSA w/ 5' MC and 2' SS

Personnel:
Geologist: B. Kenning
Driller: C. Clines
Helper(s): D. Smith

Dates:
Start: 6/14/2019
Finish: 6/14/2019

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Sample Run No.	Sample Type	Sample Recov.	Blow Count	Lithology	Description/Comments	Elev. (MSL)
0						Ground Surface	0.0
						Brown clayey TOPSOIL.	
						Brown silty CLAY, moist, stiff.	
	1		3.0				
5							-5.0
	2		3.5				
10							-10.0
						Brown/gray clayey SILT, moist, stiff.	
	3		3.0				
15							-15.0
	4		3.8				
20							-20.0
	5		2.7				
25							-25.0

Notes: No signs of freewater

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: GP2 Boring No: GP2 Well No: AP-7

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Sample Run No.	Sample Type	Sample Recov.	Blow Count	Lithology	Description/Comments	Elev. (MSL)
	6		4.1			Gray clayey SAND, fine-grained, moist, moderately stiff.	
30							-30
	7		4.1				
						Gray clayey SILT, moist, stiff, coal fragments at 30.4'.	
35							-35
	8		3.4			Gray SHALE, weathered, slightly moist, soft.	
40						End of Boring = 40 Feet	-40
45							-45
50							-50

Notes: No signs of freewater

Andrews Engineering, Inc.
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FIELD BORING LOG

Site Information:
Name: CWLP
Location: Springfield
County: Sangamon
Site No.:
AEEI No.: 180247

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: 65, partly cloudy

Boring Information:
Boring No: GP3
Well No: GP3
Surf Elev.: 549.12

Depth Information:
Total: 25'
Auger: 25'
Core: N/A

Dates:
Start: 6/13/2019
Finish: 6/13/2019

Drilling Contractor:
Contractor Name: Bulldog Drilling
City: Dupo, IL
Equipment: CME 55cc 4.25 in HSA w/ 5' MC and 2' SS

Personnel:
Geologist: B. Kenning
Driller: C. Clines
Helper(s): D. Smith

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Sample Run No.	Sample Type	Sample Recov.	Blow Count	Lithology	Description/Comments	Elev. (MSL)
0						Ground Surface	0.0
						Brown silty to clayey TOPSOIL, moist, stiff.	
						Brown silty CLAY to clayey SILT, moist, stiff.	
	1		4.7				
5				2 4 4 6			-5.0
	2		1.6				
				4 9 12 12		Light brown clayey SILT, slightly moist, stiff.	
	3		1.6				
				6 11 11 12			
10	4		1.8				-10.0
	5		3.0			Brown clayey SAND, fine-grained, slightly moist, moderately stiff.	
15							-15.0
						Brown silty CLAY, moist, stiff, contains coal fragments.	
	6		4.0			Brown clayey SAND, fine-grained, moist, moderately loose.	
20							-20.0

Notes: Macrocore refusal at 23'; Split spoon refusal at 24'; blind drilled to EOB depth of 25'

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: GP3 Boring No: GP3 Well No: GP3

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Sample Run No.	Sample Type	Sample Recov.	Blow Count	Lithology	Description/Comments	Elev. (MSL)
	7		2.2			Gray SHALE, weathered, slightly moist, soft.	
	8		0.7	41 50 3"			
	9		0.0				
25						End of Boring = 25 Feet	-25
30							-30
35							-35
40							-40

Notes: Macrocore refusal at 23'; Split spoon refusal at 24'; blind drilled to EOB depth of 25'

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water Light and Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEI No.: 180247

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: 80's F, Sunny

Boring Information:
Boring No: GP4
Well No: GP4
Surf Elev.: 0

Depth Information:
Total: 38.0
Auger: 38.0
Core: N/A

Drilling Contractor:
Contractor Name: Bulldog Drilling, Inc.
City: Dupo, IL
Equipment: AMS PowerProbe 9500 w/ 5' MC

Personnel:
Geologist: C. Myrvold
Driller: J. Edwards
Helper(s): S. Guy

Dates:
Start: 5/17/19
Finish: 5/17/19

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	0.0
							Gray clayey SILT, moist, loose.	
							Brown/gray silty CLAY, moist, stiff.	
	1		4.3/5					
5								-5.0
	2		3.7/4					
							Gray clayey SILT, moist, moderately loose.	
							Brown silty SAND, fine to medium-grained, moist, moderately tight.	
10								-10.0
	3		4.0/4				Gray to dark gray silty CLAY, moist, stiff; trace to some sand.	
15	4		1.3/4					-15.0
	5		4.0/4					
20								-20.0

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: GP4 Boring No: GP4 Well No: GP4

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							(cont.) Gray to dark gray silty CLAY, moist, stiff; trace to some sand.	
	6		3.1/4					
25								-25.0
	7		4.0/4					
30								-30.0
	8		3.4/4					
35	9		4.0/4					-35.0
							End of Boring = 38 Feet	
40								-40.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: Springfield, IL
County: Sangamon
Site No.:
AEEI No.: 180247

Location:
Coord. System:
Northing: 0
Easting: 0

Weather:

Boring Information:
Boring No: GP5
Well No: GP5
Surf Elev.: 0

Depth Information:
Total: 15.5'
Auger: 15.5'
Core: N/A

Dates:
Start: 6/11/2019
Finish: 6/11/2019

Drilling Contractor:
Contractor Name: Bulldog Drilling
City: Dupo, IL
Equipment: CME 55cc w/ 4.25" HSA and 5' MC

Personnel:
Geologist: C. Myrvold
Driller: C. Clines
Helper(s): D. Smith

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Sample Run No.	Sample Type	Sample Recov.	Blow Count	Lithology	Description/Comments	Elev. (MSL)
0						Ground Surface	0.0
	1		0.5			Brown silty CLAY, moist, stiff.	
5							-5.0
	2		4.5			Brown to gray silty CLAY, moderately stiff, shows of iron oxidation.	
10							-10.0
	3		2			Black COAL, slightly moist, soft.	
	4		3			Gray SHALE, weathered, dry, soft.	
15							-15.0
	5		0.5				
						End of Boring = 15.5 Feet	
20							-20.0

Notes: Refusal at 15.5'; No well installation

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water Light and Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEI No.: 180247

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: 80's F, Sunny

Boring Information:
Boring No: GP6
Well No: GP6 /AP-6
Surf Elev.: 535.40

Depth Information:
Total: 37.0
Auger: 37.0
Core: N/A

Dates:
Start: 5/17/19
Finish: 5/17/19

Drilling Contractor:
Contractor Name: Bulldog Drilling, Inc.
City: Dupo, IL
Equipment: AMS PowerProbe 9500 w/ 5' MC

Personnel:
Geologist: C. Myrvold
Driller: J. Edwards
Helper(s): S. Guy

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	0.0
							Dark brown clayey silt TOPSOIL, moist, moderately loose.	
							Brown/gray silty CLAY to clayey SILT, moist, stiff.	
	1		4.1/5					
5								-5.0
	2		4.0/4					
10								-10.0
	3		4.0/4				Brown silty SAND, fine-grained, saturated, loose.	
							Dark gray clayey SAND, fine-grained, wet to saturated, moderately loose, some silt.	
							Dark gray clayey SILT, moist, moderately stiff to stiff, some sand.	
15	4		1.3/4					-15.0
	5		3.0/4					
20								-20.0

Notes: refusal at 37'

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: GP6 Boring No: GP6 Well No: AP-6

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							(cont.) Dark gray clayey SILT, moist, moderately stiff to stiff, some sand.	
	6		4.0/4				Dark gray silty CLAY, moist, moderately stiff, some sand.	
25								-25.0
	7		4.0/4					
30								-30.0
	8		2.7/4					
35	9		4.0/4					-35.0
							Dark brownish gray clayey SAND, fine-grained, moist to wet, moderately loose.	
							End of Boring = 37 Feet	
40								-40.0

Notes: refusal at 37'

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FIELD BORING LOG

Site Information:
Name: Springfield City Water Light and Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEI No.: 180247

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: 80's F, Sunny

Boring Information:
Boring No: GP7
Well No: GP7
Surf Elev.: 0

Depth Information:
Total: 36.5
Auger: 36.5
Core: N/A

Drilling Contractor:
Contractor Name: Bulldog Drilling, Inc.
City: Dupo, IL
Equipment: AMS PowerProbe 9500 w/ 5' MC

Personnel:
Geologist: C. Myrvold
Driller: J. Edwards
Helper(s): S. Guy

Dates:
Start: 5/16/19
Finish: 5/16/19

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	0.0
							Dark brown clayey silt TOPSOIL, moist, moderately loose.	
							Brown/gray silty CLAY to clayey SILT, moist, stiff, trace sand.	
	1		4.1/5					
5								-5.0
	2		4.0/4					
10								-10.0
	3		4.0/4					
							Gray silty CLAY, moist, stiff.	
15	4		2.7/4					-15.0
							17.0 - 18.0: Soft, saturated.	
							18.0 - 25.0: moderately loose to moderately stiff.	
	5		4.0/4					
20								-20.0

Notes: Refusal at 36.50'

Andrews Engineering, Inc.
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Springfield, IL 62711

FIELD BORING LOG

Boring Information: GP7 Boring No: GP7 Well No: GP7

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							(cont.) Gray silty CLAY, moist, stiff.	
	6		4.0/4				23.0 - 25.0: gray to brown/gray.	
25							Dark gray silty CLAY, moist, moderately stiff; some sand.	-25.0
	7		3.1/4					
							Dark gray silty SAND, fine-grained, wet, loose, some clay.	
30								-30.0
	8		3.7/4					
35	9		3.5/ 3.5					-35.0
							Gray to dark gray SHALE, weathered, soft, dry.	
							End of Boring = 36.5 Feet	
40								-40.0

Notes: Refusal at 36.50'

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water Light and Power
Location: Springfield, IL
County: Sangamon
Site No.:
AEI No.: 180247

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: 80's F, Sunny

Boring Information:
Boring No: GP8
Well No: GP8
Surf Elev.: 530.08

Depth Information:
Total: 42.0
Auger: 42.0
Core: N/A

Drilling Contractor:
Contractor Name: Bulldog Drilling, Inc.
City: Dupo, IL
Equipment: AMS PowerProbe 9500 w/ 5' MC

Personnel:
Geologist: C. Myrvold
Driller: J. Edwards
Helper(s): S. Guy

Dates:
Start: 5/15/19
Finish: 5/16/19

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	0.0
							Dark brown clayey SILT, moist to wet, loose.	
	1		2.7/4				Brown silty CLAY, moist, stiff, trace sand, black mottling.	
5	2		3.3/4					-5.0
10	3		4.0/4					-10.0
	4		4.0/4				Gray silty CLAY, moist, moderately stiff.	
15	5		4.0/4					-15.0
20								-20.0

Notes: Refusal at 42.00'

Andrews Engineering, Inc.
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Springfield, IL 62711

FIELD BORING LOG

Boring Information: GP8 Boring No: GP8 Well No: GP8

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	6		2.2/4				(cont.) Gray silty CLAY, moist, moderately stiff.	
25	7		4.0/4					-25.0
30	8		4.0/4					-30.0
	9		4.0/4					
35							Dark gray clayey SAND, fine-grained, moist, moderately stiff.	-35.0
	10		4.0/4					
40								-40.0

Notes: Refusal at 42.00'

Andrews Engineering, Inc.
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Springfield, IL 62711

FIELD BORING LOG

Boring Information: GP8 Boring No: GP8 Well No: GP8

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	11		2.0/2				Gray to dark gray weathered SHALE, soft, slightly moist.	
							End of Boring = 42 Feet	
45								-45.0
50								-50.0
55								-55.0
60								-60.0

Notes: Refusal at 42.00'

ANDREWS ENGINEERING
3300 Ginger Creek Drive - 217.787.2334
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: Springfield, IL.
County: Sangamon
Site No.:
AEI No.: 200387

Location:
Coord. System:
Northing: 3401.7
Easting: 1265.0

Weather: 52F Sunny

Boring Information:
Boring No: W-9
Well No: AP-8
Surf Elev.: 537.2

Depth Information:
Total: 39.6
Auger: 4.25" HSA
Core: 5ft. Continuous Sampler

Drilling Contractor:
Contractor Name: Total Drilling Services/Skinner ltd.
City: Hindsboro, IL.
Equipment: CME 850

Personnel:
Geologist: C.M. Latham
Driller: Todd Skinner
Helper(s): A. Bruce

Dates:
Start: 2/25/2021
Finish: 2/25/2021

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0							**SILTY TOPSOIL** Dark brown, organic roots, moist, low-moderate firm.	
	1		4/5				**SILTY CLAY** Dark brown, firm, moist. Mottling with light brown and grey silty clay. Oxidation. 3'-5'.	
5								-5.0
	2		5/5				**CLAYEY SILT** Grey, oxidation mottling, moist, soft. Increased oxidation at 8'	
							SAND SEAM Fine-grained, well sorted, subrounded, saturated, soft.	
10							**CLAYEY SILT** Grey, oxidation, moist, soft.	-10.0
	3		5/5				**SILTY CLAY** Light grey, moist, soft	
15								-15.0
	4		5/5					
20								-20.0

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: W-9 Boring No: W-9 Well No: AP-8

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							CLAYEY SILT Brown, moist, soft-firm. Organic roots at 20'	
	5		5/5				Mottling with grey clay at 23.5'	
							SILTY CLAY Grey, moist, soft.	
25							**SILTY CLAY** Dark grey, firm, moist.	-25.0
	6		5/5				Mottled dark grey clay with blue clay at 26.5'	
							CLAY Dark grey, firm, moist.	
							Mottled dark grey clay with blue clay at 26.5'	
30							**SILTY CLAY** Blue, with trace organic coal fragments, moist, soft, moderate plasticity.	-30.0
	7		5/5					
							CLAYEY SILT WITH SAND Moist, poorly sorted, trace coal.	
35								-35.0
	8		3.5/5					
							SAND Loose sands, saturated, poorly sorted.	
				60			**SHALE** Blue, moist, weathered, with lamination.	
	9			40				
40							End of Boring = 39.6 Feet	-40.0

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: Springfield, IL.
County: Sangamon
Site No.:
AEI No.: 200387

Location:
Coord. System:
Northing: 5216.8
Easting: 703.0
Weather: 43F Sunny

Boring Information:
Boring No: W-8
Well No: AP-9
Surf Elev.: 534.3

Depth Information:
Total: 32.5ft.
Auger: 4.25". HSA
Core: 5ft. Continuous Sampler

Dates:
Start: 2/26/2021
Finish: 2/26/2021

Drilling Contractor:
Contractor Name: Total Drilling Services/Skinner ltd.
City: Hindsboro, IL.
Equipment: CME 850

Personnel:
Geologist: C.M. Latham
Driller: Todd Skinner
Helper(s): A. Bruce

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	0.0
	1		5/5				**CLAYEY SILT** Dark brown, organic roots and leaves, moist, soft.	
							CLAYEY SILT Dark brown, moist, firm, slight mottling with dark grey clay.	
5								-5.0
	2		4.5				**SILTY CLAY** Medium brown, silty clay, soft, high plasticity, moist.	
10								-10.0
	3		4.5/5				Oxidation at 11' Moderate mottling with dark grey clay at 12 ft.	
15								-15.0
							SILTY CLAY Dark grey, moist, soft, high plasticity.	
	4		5/5				**CLAY** Light grey clay, moist, soft, mottled with brown clay and oxidation.	
20								-20.0

Notes:

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FIELD BORING LOG

Boring Information: W-8 Boring No: W-8 Well No: AP-9

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							SILTY CLAY Brown, moist, firm, mottled with oxidation.	
							Mottled with blue clay and oxidation.	
	5		5/5				**CLAY** Blue clay, moist, firm, high plasticity.	
							Increasing silt content.	
25								-25.0
							CLAYEY SILT WITH SAND Poorly sorted, moist.	
	6		4.5/5				Gradation to heavier sand content; poorly sorted, moist.	
							SAND AND GRAVEL Sand and gravel with organic coal fragments; moist, poorly sorted.	
30							**SHALE** Grey, laminated, weathered, shale. Firm, Moist.	-30.0
	7			30 88 4				
							End of Boring = 32.5 Feet	
35								-35.0
40								-40.0

Notes:

ANDREWS ENGINEERING

3300 Ginger Creek Drive - 217.787.2334
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: Springfield
County: Sangamon
Site No.:
AEI No.: 200387

Location:
Coord. System:
Northing: 4684.0
Easting: 695.6

Weather: 40F Partly cloudy

Boring Information:
Boring No: W-5
Well No: AP-10
Surf Elev.: 534.4

Depth Information:
Total: 34.97
Auger: 4.25" HSA
Core: 5ft. Continous Sampler

Dates:
Start: 2/24/2021
Finish: 2/24/2021

Drilling Contractor:
Contractor Name: Total Drilling Services/Skinner ltd.
City: Hindsboro, Il.
Equipment: CME 850

Personnel:
Geologist: C.M. Latham
Driller: Todd Skinner
Helper(s): A. Bruce

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0							**SILTY TOPSOIL** Dark brown, moist, very firm, hard silt in shoe.	
	1		2.5/5				**SILT** Medium brown, moist, very firm, hard silt in shoe.	
5							**CLAYEY SILT** Brown, moist, soft, homogenous.	-5.0
	2		4/4				**SILTY CLAY** Brown, high plasticity, moist, very soft, homogenous. Trace sand seen in top of barrel.	
10							Wet from 10'-15'	-10.0
	3		5				Free water at 12'5"	
15							**SILTY CLAY** Grey, soft, moist. Fine sands, trace gravels at 17'	-15.0
	4		5				**CLAYEY SILT WITH SAND** Blueish grey with trace gravel, soft, moderate sorting.	
20								-20.0

Notes:

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FIELD BORING LOG

Boring Information: W-5 Boring No: W-5 Well No: AP-10

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							SANDY GRAVEL Poorly sorted, sub rounded, saturated, unconsolidated sands. Poorly sorted angular gravel.	
	5		5/5				**SILTY CLAY** Blue, high plasticity, firm, moist, tight clay. Very thin sand seam, fine grained, saturated at 23' Very thin sand seam, fine grained, saturated at 29.5'	
25								-25.0
	6		5/5					
30								-30.0
	7		4/5				**DIAMICTON** Blue, subrounded, poorly sorted sandy clay, with angular coal up to 0.3ft. Angular gravels; poorly sorted. Trace silts, saturated. Gradation into larger gravel and sand clasts towards bottom with trace silts and no clay.	
				33			**SHALE** Grey, moist, with lamination.	
	8			60				
35							End of Boring = 34.97 Feet	-35.0
40								-40.0

Notes:

ANDREWS ENGINEERING

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, IL
County: Sangamon
Site No.:
AEI No.: 200387-0025

Location:
Coord. System:
Northing: 4150.6
Easting: 524.5

Weather: Clear 40s

Boring Information:
Boring No: W-4
Well No: AP-11
Surf Elev.: 535.30

Depth Information:
Total: 20.1
Auger: 4.25" HSA
Core: 5ft continous sampler

Dates:
Start: 2/23/2021
Finish: 2/23/2021

Drilling Contractor:
Contractor Name: Total Drilling Services/Skinner LTD
City: Hindsboro
Equipment: CME 850

Personnel:
Geologist: Scott Kangas
Driller: Todd Skinner
Helper(s): Adam Bruce

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	0.0
							CLAYEY SILT TOPSILT Black to dark brown, moist, soft to moderately stiff.	
	1		3.5/5				**CLAYEY SILT** Dark brown, moist, stiff to hard, homogenous.	
5								-5.0
	2		3.75/5				Very hard, trace fine sand, and oxidation with depth	
10								-10.0
	3		5/5				**SILTY CLAY** Olive gray, moist, soft, heavily oxidated, trace fine sand that increases with depth	
15								-15.0
							CLAYEY SAND Dark Gray to reddish brown with depth, wet, soft, fine well sorted sand	
	4		2.5/5				**GRAVEL AND SAND** Gray, poorly sorted up to 1" angular pieces, wet	
20								-20.0

Notes:

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FIELD BORING LOG

Boring Information: W-4 Boring No: W-4 Well No: AP-11

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							SHALE Weathered, gray	
							End of Boring = 20.1 Feet	
25								-25.0
30								-30.0
35								-35.0
40								-40.0

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, IL
County: Sangamon
Site No.:
AEI No.: 200387-0025

Location:
Coord. System:
Northing: 3797.7
Easting: 667.6

Weather: Clear 40s

Boring Information:
Boring No: W-3
Well No: AP-12
Surf Elev.: 537.80

Depth Information:
Total: 27.3
Auger: 4.25" HSA
Core: 5ft continous sampler

Dates:
Start: 2/23/2021
Finish: 2/23/2021

Drilling Contractor:
Contractor Name: Total Drilling Services/Skinner LTD
City: Hindsboro, IL
Equipment: CME 850

Personnel:
Geologist: Scott Kangas
Driller: Todd Skinner
Helper(s): Adam Bruce

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	0.0
							CLAYEY SILT TOPSOIL Dark brown, moist, soft to slightly stiff, root structures	
							CLAYEY SILT Brown, moist, stiff to hard, heavily oxidated, homogenous	
	1		4/5					
5								-5.0
							SILT Light gray, moist, firm to hard, heavily oxidated, mottling, homogenous.	
	2		4/5					
10								-10.0
							CLAYEY SILT Brown, moist, stiff to hard, moderate oxidation	
	3		5/5				Lighter in color, trace fine sand, and increase clay content with depth	
15								-15.0
	4		4/5					
							SANDY CLAY Gray, wet, soft, fine sand, well sorted and homgenous	
20								-20.0

Notes:

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FIELD BORING LOG

Boring Information: W-3 Boring No: W-3 Well No: AP-12

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		2.5/2.5					
							CLAYEY SAND Dark gray, wet, stiff, well sorted fine sand	
	6		2/2.5					
							GRAVEL AND SAND Gray, poorly sorted, angular to subangular, 1.5" or less in size	
25								-25.0
	7		2.3/2.3				**SHALE** Gray, weathered	
							End of Boring = 27.3 Feet	
30								-30.0
35								-35.0
40								-40.0

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: Springfield, IL.
County: Sangamon
Site No.:
AEI No.: 200387

Location:
Coord. System:
Northing: 3451.2
Easting: 852.1

Weather: 50F Sunny

Boring Information:
Boring No: W-2
Well No: AP-13
Surf Elev.: 538.6

Depth Information:
Total: 27.6
Auger: 4.25" HSA
Core: 5ft. Continuous Sampler

Dates:
Start: 2/23/2021
Finish: 2/24/2021

Drilling Contractor:
Contractor Name: Total Drilling Services/Skinner ltd.
City: Hindsboro, IL.
Equipment: CME 850

Personnel:
Geologist: C.M. Latham
Driller: Todd Skinner
Helper(s): A. Bruce

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0							**SILTY TOPSOIL** Dark Brown-black, moist, soft.	
	1		3.5				**CLAYEY SILT** Light brown, firm, moist.	
5							**SILT** Grey, moist, firm, homogenous.	-5.0
	2		4/5				**SILT** Reddish brown, moist, firm, homogenous.	
10								-10.0
	3		5/5				**CLAYEY SILT** Reddish brown, mottled with grey clay, moist, soft-firm, homogenous.	
15								-15.0
	4		5/5					
20								-20.0

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: W-2 Boring No: W-2 Well No: AP-13

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		1.25/ 2.5				**SAND AND GRAVEL** Dirty olive, saturated, poorly sorted, angular.	
25							**SHALE** Grey, weathered, with lamination.	-25.0
				29 60 4				
							End of Boring = 27.6 Feet	
30								-30.0
35								-35.0
40								-40.0

Notes:

ANDREWS ENGINEERING

3300 Ginger Creek Drive - 217.787.2334
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: Springfield, IL
County: Sangamon
Site No.:
AEI No.: 200387

Location:
Coord. System:
Northing: 3171.5
Easting: 1275.2

Weather: 44F Partly Sunny

Boring Information:
Boring No: W-1
Well No: AP-14
Surf Elev.: 536.80

Depth Information:
Total: 27.5
Auger: 4.25" HSA
Core: 5ft Continuous Sampler

Dates:
Start: 2/25/2021
Finish: 2/26/2021

Drilling Contractor:
Contractor Name: Total Drilling Services/Skinner ltd.
City: Hindsboro, IL
Equipment: CME 850 4.25" HSA w/ 5' cont. sampler and 2'SS

Personnel:
Geologist: C.M. Latham
Driller: Todd Skinner
Helper(s): A. Bruce

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0							**SILTY TOPSOIL** Dark brown, moist, soft, organic leaves	
							SILTY CLAY Some gravel	
	1		3.5/5					
5							**CLAYEY SILT** Dark brown, moist, soft, organic leaves and roots, oxidation	-5.0
							SILTY CLAY Medium brown, mottled with grey clay and oxidation, high plasticity, moist, firm.	
	2		5/5					
10								-10.0
	3		4/5				Groundwater encountered at 14'	
15							**SILTY CLAY** Grey, moist, firm, high plasticity, oxidation	-15.0
	4		5/5					
20							21-21.5' coal fragments with undifferentiated organic materials	-20.0

Notes:

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3300 Ginger Creek Drive - 217.787.2334
Springfield, IL 62711

FIELD BORING LOG

Boring Information: W-1 Boring No: W-1 Well No: AP-14

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		3/5				**SILTY CLAY** Some gravel	
							SAND Coarse grained, poorly sorted, unconsolidated, saturated.	
25								-25.0
	6		3/5	30 60 4			**SHALE** Grey, weatherd with lamination	
							End of Boring = 27.5 Feet	
30								-30.0
35								-35.0
40								-40.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1128150.33
Easting: 2455538.81

Weather: Sunny 66 F

Boring Information:
Boring No: B1
Well No: T1
Surf Elev.: 535.33

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 05/01/2024
Finish: 05/01/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	535.3
							Dark brown silty CLAY (topsoil); Sample CS1A	
	1		4.0/5		0.25		Dark brown silty CLAY; moist	
5								530.0
	2		5.0/5		0.25		Sample CS2 7.0-7.5'; saturated 7.5'	
							Free water 9.5'	
10								525.0
					2.0		Light brown silty CLAY; gray mottling; Sample CS3A 11.0-11.3'	
	3		5.0/5				Sample CS3B 13.0-13.5'	
					2.75			
15					1.75			520.0
					0.5		Sample CS4A 15.5-16.0'	
	4		3.0/4.5				Brown SAND and GRAVEL; fine to coarse grained; silty clay matrix	
							Gray SANDSTONE; weathered	
							Greenish gray SANDSTONE; fine grained	
20							End of Boring = 19.5 Feet	

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1128803.76
Easting: 2455006.85

Weather: Sunny 66 F

Boring Information:
Boring No: B2
Well No: T2
Surf Elev.: 547.22

Depth Information:
Total: 35.0'
Auger: 35.0'
Core: -

Dates:
Start: 05/01/2024
Finish: 05/01/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	547.2
							Dark brown silty CLAY (topsoil); Sample CS1A 0-0.5	
							Brown silty CLAY; moist; Sample CS1B 2.5-3.0	
	1		4.3/5		3.0 3.0			545.0
5							Brown clayey SILT; greenish gray mottling; moist	
	2		4.0/5					540.0
					2.25		Sample CS2A 8.0-8.5'	
10							Sample CS3A 11.0-11.5	
							Dark brown CONCRETIONS; Sample CS3B 12.1-12.3'	535.0
	3		5.0/5				Brown silty CLAY; Sample CS3C	
					1.5			
15								

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: B2 Boring No: B2 Well No: T2

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Sample CS4	
	4		5.0/5		4.75			530.0
20	5		2.0/2					
							Gray clayey SILT; brown mottling; moist; trace black organics	525.0
	6		3.0/3		3.25		Sample CS6A 23-23.5'	
25					1.25		Increasing black organics; Sample CS7A 25.5-26	
							Gray silty CLAY; brown mottling; moist; trace organics	520.0
	7		5.0/5		1.75		Sample CS7B 27.0-28.0'	
30								

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: B2 Boring No: B2 Well No: T2

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Sample CS8A	
							Gray to brownish gray SHALE; weathered; wet; Sample CS8B	515.0
	8		5.0/5				Gray SHALE; Sample CS8C 32.25-33.0'	
35							End of Boring = 35 Feet	510.0
40								505.0
45								

Notes:

Andrews Engineering, Inc.
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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1130726.70
Easting: 2455622.14

Weather: Cloudy 50 F

Boring Information:
Boring No: B4
Well No: T4
Surf Elev.: 546.56

Depth Information:
Total: 35.0'
Auger: 35.0'
Core: -

Dates:
Start: 04/26/2024
Finish: 04/26/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	546.6
	1		4.7/5		0.5		Brown silty CLAY; moist; organics	545.0
5							Brown clayey SILT; moist; trace organics; becoming more dense with depth	
	2		5.0/5		3.5 >5			540.0
10								
	3		5.0/5		0.5		Black organics; Sample CS3A	535.0
					0.25		Brown silty CLAY; Sample CS3B	
15								

Notes:

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FIELD BORING LOG

Boring Information: B4 Boring No: B4 Well No: T4

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Brown clayey SILT; moist	
					0.25			530.0
							Brown silty CLAY; moist; medium to fine coarse gravel	
	4		3.6/5		0.5			
							Gray SHALE; weathered	
							Gray SHALE; weathered; moist	
20								
								525.0
	5		3.6/5					
25							End of Boring = 25 Feet	
								520.0
30								

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1130996.32
Easting: 2455852.04

Weather: Sunny 43 F

Boring Information:
Boring No: B5
Well No: T5
Surf Elev.: 538.15

Depth Information:
Total: 20.0'
Auger: 20.0'
Core: -

Dates:
Start: 04/25/2024
Finish: 04/25/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	538.2
0							Brown SILT; moist	
					0.25			
							Dark brown silty CLAY; moist	
	1		4.6/5		2.0			535.0
							Dark brown silty CLAY; brown/tan mottling; moist	
					2.25		Olive green to brown silty CLAY; mottling; moist	
5								
	2		4.8/5		2.25		8.0' Free water	530.0
10							Brown SAND; fine grained; with silt; saturated	
							Olive green clayey SILT; brown mottling	
					>5.0			
	3		3.8/5				Gray SHALE; weathered	525.0
15								

Notes:

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FIELD BORING LOG

Boring Information: B5 Boring No: B5 Well No: T5

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	4		1.6/5				Black SHALE; saturated	520.0
20							End of Boring = 20 Feet	515.0
25								510.0
30								

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1131175.15
Easting: 2456259.47

Weather: Sunny 43 F

Boring Information:
Boring No: B6
Well No: T6
Surf Elev.: 535.96

Depth Information:
Total: 42.2'
Auger: 42.2'
Core: -

Dates:
Start: 04/25/2024
Finish: 04/25/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	536.0
0							Dark brown silty CLAY (topsoil)	
					1.5			535.0
	1		4.1/5				Greenish brown silty CLAY; moist; trace organics	
5							Greenish brown silty CLAY; gray mottling; trace organics	
	2		4.2/5		2.0			530.0
10							Gray/brown clayey SILT; greenish mottling; moist	
								525.0
	3		5.0/5					
					4.5			
							14.0' Wet	
15								

Notes:

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FIELD BORING LOG

Boring Information: B6 Boring No: B6 Well No: T6

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Gray silty CLAY; trace brown mottling; organics	520.0
	4		5.0/5		1.75		18.0' Saturated	
20							Gray CLAY; saturated; soft	515.0
	5		5.0/5		0.25		Dark gray SILT; saturated	
25							Dark gray silty CLAY; saturated; small gravel	510.0
	6		4.7/5		0.5			
30								

Notes:

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FIELD BORING LOG

Boring Information: B6 Boring No: B6 Well No: T6

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Dark gray SILT; saturated; trace white clasts	505.0
	7		5.0/5		0.5			
35					0.5			500.0
	8		3.5/5				Gray SILT to silty SAND; fine to coarse grained	
40							Gray SHALE (bedrock)	
	9		1.5/5					495.0
							End of Boring = 42.2 Feet	
45								

Notes:

APPENDIX A4:
IMPOUNDMENT GEOTECHNICAL INVESTIGATION LOGS

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1127408.40
Easting: 2456167.19

Weather: Rainy 62 F

Boring Information:
Boring No: B-1U
Well No: B-1U
Surf Elev.: 564.17

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 10/13/2023
Finish: 10/13/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kergel
Helper(s): M. Sick

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	564.2
0	1						Black CINDERS; moist; loose	
	2		1.0/1.5	4 5 6	2.0		Dark brown silty CLAY; moist; stiff; some black cinders; trace organics; trace gravel	
	3							560.0
5	4		0.9/1.5	2 3 5	1.5			
	5						Black fly ASH with CINDERS; moist to wet; moderately stiff	
	6		1.0/1.5	2 6 6	1.0			
	7							555.0
10	8		0.8/1.5	2 5 6				
	9							
	10		0.8/1.5	1 2 1				
	11							550.0
15	12		1.4/1.5	0 1 1			Black fly ASH; wet; soft	
	13						CINDERS	
	14		1.1/1.5	1 2 3	0.25		Black fly ASH; wet; soft; laminated	
	15							545.0
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1127370.68
Easting: 2456072.07

Weather: Sunny 72 F

Boring Information:
Boring No: B-1L
Well No: B-1L
Surf Elev.: 552.56

Depth Information:
Total: 24.5'
Auger: 24.5'
Core: -

Dates:
Start: 10/11/2023
Finish: 10/11/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kergel
Helper(s): M. Sick

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	552.6
0	1						Brown silty CLAY; moist; stiff; some dark brown mottling; few organics; trace ash fragments; trace gravel	
	2		1.1/1.5	2 6 7	3.75			550.0
	3							
5	4		1.0/1.5	3 5 4	3.5			
	5							
	6		0.6/1.5	2 3 3	2.5			545.0
	7							
							16 mm VST@ 9.5' = 7.7, 2.4, 2.8	
10	8		0.6/1.5	1 4 3	2.25		Brown SAND; medium to coarse grained; moist; loose	
	9							
							Black coal ASH fragments; wet; loose	
	10		0.3/1.5	1 3 3				540.0
	11							
15	12		0.6/1.5	0 2 2				
	13							
	14		0.5/1.5	4 10 3				535.0
							Dark gray sandy SILT; wet; soft; trace gravel	
	15							
							More clayey	
20	16		1.1/1.5	0 0 2	0.25		Dark gray CLAY; moist; soft; some organic fragments; trace gravel	
	17				0.5			
							20 mm VST@ 22.0' = 13.0+, 3.9, 3.9	
	18		1.4/2.0					530.0
	19							
25					2.0		End of Boring = 24.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128045.00
Easting: 2456005.51

Weather: Sunny 78 F

Boring Information:
Boring No: B-2U
Well No: B-2U
Surf Elev.: 562.33

Depth Information:
Total: 26.0'
Auger: 26.0'
Core: -

Dates:
Start: 10/12/2023
Finish: 10/12/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	562.3
0	1						Black coal ASH (cinders); moist; loose	
	2		0.4/1.5	2 5 1				560.0
	3							
5	4		0.2/1.5	1 1 2				
	5							
	6		0.8/1.5	2 4 8	2.0		Gray silty CLAY; some yellow brown mottling; some iron concretions; moist; stiff; trace gravel	555.0
	7							
10	8		0.4/1.5	2 5 4			Black coal ASH (cinders); wet; loose	
	9							
	10		1.5/1.5	1 2 11	<0.25		Black fly ASH; wet; soft; some cinders	550.0
	11							
15	12		1.0/1.5	1 0 2	<0.25		With cinders	
	13							
	14		0.4/1.5	3 3 4			Black coal ASH (cinders); wet; loose	545.0
	15							
20	16		0.5/2.0				Black fly ASH; wet; soft; 20 mm VST@ 19.5' = 3.0, 3.2, 3.8	
	17				<0.25			
	18		0.5/1.5	1 2 5			Black CINDERS; wet; loose	540.0
	19							
25	20		0.5/1.5	0 1 2	1.25		Olive brown CLAY; moist; stiff; some organics	
							End of Boring = 26 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128015.70
Easting: 2455909.16

Weather: Sunny 65 F

Boring Information:
Boring No: B-2L
Well No: B-2L
Surf Elev.: 536.92

Depth Information:
Total: 24.5'
Auger: 24.5'
Core: -

Dates:
Start: 10/10/2023
Finish: 10/10/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	536.9
0	1						Gray/brown silty CLAY; some iron concretions; moist; stiff; some organics; some ash fragments; some gravel	
	2		0.5/1.5	1 4 4	1.25			535.0
	3							
5	4		1.3/1.5	2 2 3	1.0			
	5							
	6		1.8/2.0				Light gray clayey SILT; few dark yellow brown mottling; moist; firm; trace iron concretions	530.0
	7				2.25			
10	8		1.5/1.5	1 2 2	0.75		20 mm VST@9.5' = 13.0, 3.2, 2.8	
	9				<0.25		Gray clayey SAND; wet; soft	
	10		1.5/1.5	0 1 1	<0.25			525.0
	11							
15	12		1.0/1.5	0 0 1	<0.25			
	13							
	14		1.0/1.5	0 1 1	0.25		Gray clayey SILT; laminated; moist to wet; soft	520.0
	15							
20	16		1.3/1.5	0 1 2			Brown SAND; medium to coarse grained; wet; loose	
	17							
	18		1.5/1.5	1 3 3	0.25		Dark gray clayey SILT; laminated; moist; soft; organic fragments	515.0
	19							
25							End of Boring = 24.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128026.78
Easting: 2455971.03

Weather: Cloudy 62 F

Boring Information:
Boring No: B-2
Well No: B-2
Surf Elev.: 554.71

Depth Information:
Total: 30.0'
Auger: 30.0'
Core: -

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: S. Van Hook
Driller: A. Kargel
Helper(s): M. Sick

Dates:
Start: 10/06/2023
Finish: 10/06/2023

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	554.7
0	1						Gray brown SILT; dry	
	2		0.4/1.5	3 5 5	4.75			
	3							
5	4		0.8/1.5	3 4 6	2.5		Becoming moist	550.0
	5							
	6		0.7/1.5	3 4 4	2.0		Brown silty CLAY; moist	
	7				2.5			
10	8		0.9/1.5	2 4 4				545.0
	9						Greenish brown silty CLAY; moist	
	10		1.0./1.5	2 3 4	1.5			
	11							
15	12		1.0/1.5	1 3 5	2.0		Brown silty CLAY; moist; trace black organics; 16 mm VST@ 14.5' = 7.0, 4.3, 4.2	540.0
	13							
	14		1.0/1.5	1 2 4	2.0			
	15							
20	16		1.4/1.5	1 3 4	2.5		Brownish gray silty CLAY; black/orange inclusions; organics; moist	535.0
	17							
	18		1.9/2.0					
	19							
25	20		1.5/1.5	1 3 4	1.0		Brownish/greenish gray silty CLAY; moist; trace brown organics; 16 mm VST@ 25.0' = 5.4, 3.2, 3.5	530.0
	21							
	22		1.5/1.5	0 2 2	<0.25 <0.25		Becoming trace fine grained sand Orangish brown SILT; moist	
	23							
30							End of Boring = 30 Feet	525.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1127389.92
Easting: 2456246.00

Weather: Sunny 64 F

Boring Information:
Boring No: B-1CCR
Well No: B-1CCR
Surf Elev.: 568.03

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 10/17/2023
Finish: 10/17/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	568.0
0	1						Black bottom ash and CINDERS; moist; loose	
	2		0.5/1.5	5 5 2				565.0
	3							
5	4		0.3/1.5	1 2 3				
	5						Black fly ASH; moist to wet	
	6		0.8/1.5	1 3 3	1.0			
	7						Black bottom ASH; moist to wet; moderately loose	560.0
10	8		1.0/1.5	1 1 1				
	9							
	10		1.2/1.5	1 0 1				555.0
	11							
15	12		1.5/1.5	0 0 1	<0.25		Black fly ASH; moist to wet; moderately firm	
	13						Black bottom ASH; wet; loose	
	14		0.9/1.5	2 6 7				550.0
	15							
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1127355.19
Easting: 2456023.58

Weather: Sunny 65 F

Boring Information:
Boring No: B-1LL
Well No: B-1LL
Surf Elev.: 542.84

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 10/10/2023
Finish: 10/10/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	542.8
0	1						Brown clayey SILT; with sand; moist; loose	
	2		0.2/1.5	6 8 8				540.0
	3							
5	4		0.2/1.5	6 5 5				
	5							
	6		0.6/1.5	4 4 5			Gray silty CLAY; with cinders; dark yellowish brown mottling; moist; stiff	535.0
	7				2.25			
10	8		0.6/1.5	7 9 10			Gray SAND; medium to coarse grained; wet; loose	
	9							
	10		0.7/1.5	3 5 5			Gray silty CLAY; with black organic varved material; few ash fragments	530.0
	11				2.75			
15	12		2.0/2				16 mm VST@ 14.5' = 8.5, 3.6, 4.2	
	13				0.5		Very soft	
	14		1.4/1.5	1 2 2	0.75			525.0
	15							
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1127375.6
Easting: 2456111.7

Weather: Sunny 62 F

Boring Information:
Boring No: B-1
Well No: B-1
Surf Elev.: 557.77

Depth Information:
Total: 29.5'
Auger: 29.5'
Core: -

Dates:
Start: 10/09/2023
Finish: 10/09/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: R. Carson
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	557.8
0	1						CINDER and GRAVEL (fill)	
	2		0.3/1.5	3 4 2				555.0
	3							
5	4		0.2/1.5	1 2 1			CINDER (fill); dry; loose	
	5						Gray silty CLAY; with cinders; dry; medium stiff	
	6		0.5/1.5	1 3 2				550.0
	7							
10	8		0.9/1.5	1 2 8	1.0		Gray silty CLAY; with gravel and sand; moist; stiff; 20 mm VST@ 9.5' = 6.0, 3.2, 4.3	
	9							
	10		0.8/1.5	0 1 3	1.0		Gray sandy CLAY; moist; medium stiff	545.0
	11						Gray SANDY LOAM	
15	12		0.9/1.5	4 18 9			Black CINDER (fill); with gravel and silty clay; wet; loose	
	13							
	14		0.2/1.5	1 1 1				540.0
	15							
20	16		1.1/1.5	1 1 3	0.3		Gray SANDY LOAM; wet; slightly stiff	
	17							
	18		1.1/1.5	0 0 3			Gray SILTY LOAM; wet; soft; 20 mm VST@ 51.5' = 6.7, 2.3, 2.5	535.0
	19							
25	20		1.8/2.0				Gray SANDY LOAM; moist	
	21				0.7			
	22		1.2/1.5	2 3 5	1.5		Gray silty CLAY; moist; stiff	530.0
	23							
30							End of Boring = 29.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128059.37
Easting: 2456087.51

Weather: Sunny 64 F

Boring Information:
Boring No: B-2CCR
Well No: B-2CCR
Surf Elev.: 566.77

Depth Information:
Total: 26.0'
Auger: 26.0'
Core: -

Dates:
Start: 10/17/2023
Finish: 10/17/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	566.8
0	1						Mix of lime sludge, and fly and bottom ASH; some dark yellow brown mottling; moist; soft	
	2		1.3/1.5	1 1 1	0.25			565.0
	3							
5	4		1.6/1.5	1 0 1			More bottom ash	
	5							
	6		0.9/1.5	1 5 3	<0.25		Lime SLUDGE; wet; soft	560.0
	7							
10	8		1.5/1.5	0 0 0	<0.25		Black fly ASH; moist; soft; some organic fragments	
	9							555.0
	10		1.5/1.5	0 0 0			Some bottom ash	
	11							
15	12		1.5/1.5	0 0 0	<0.25			
	13							
	14		0.4/1.5	1 0 1			Black bottom ASH; wet; loose	550.0
	15							
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128663.99
Easting: 2456486.97

Weather: Sunny 69 F

Boring Information:
Boring No: B-3
Well No: B-3
Surf Elev.: 554.19

Depth Information:
Total: 29.5'
Auger: 29.5'
Core: -

Dates:
Start: 10/18/2023
Finish: 10/18/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	554.2
0	1						Dark yellowish brown silty CLAY; organic staining; moist; stiff	
	2		0.5/1.5	1 1 2	1.0			
	3							
5	4		0.9/1.5	2 2 2			Brown/gray SAND; coarse grained; moist to wet; loose	550.0
	5							
	6		0.8/1.5	1 2 3	2.57		Dark yellowish brown silty CLAY; organic staining; moist; stiff	
	7							545.0
10	8		1.5/2.0				16 mm VST@ 9.5' = 9.3, 5.3, 5.4	
	9				1.5			
	10		1.0/1.5	1 3 3	1.5		Black/gray	
	11							540.0
15	12		1.3/1.5	2 3 4	1.5			
	13							
	14		1.2/1.5	1 2 5	1.25		With dark yellow brown mottling	
	15							535.0
20	16		1.6/2.0				16 mm VST@ 19.5' = 11.8, 5.0, 5.1	
	17				1.75			
	18		1.5/1.5	1 2 4			Manganese oxide concretions	
	19						Dark yellowish brown silty CLAY; more silty; organic staining; moist; stiff	
25	20		1.1/1.5	0 2 2	1.25		Yellow brownclayey SILT; some dark yellow brown mottling; laminated; some magnesium oxide concretions; moist; soft; 16 mm VST@ 24.5' = 9.1, 6.0, 5.9	530.0
	21							
	22		1.2/1.5	0 2 4	0.5			
	23				2.75		Yellow brown silty CLAY; some dark yellow brown mottling; few manganese oxide concretions; moist; stiff	525.0
30							End of Boring = 29.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128634.05
Easting: 2456502.96

Weather: Sunny 64 F

Boring Information:
Boring No: B-3U
Well No: B-3U
Surf Elev.: 562.94

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 10/17/2023
Finish: 10/17/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	562.9
0	1						Dark yellowish brown silty CLAY; some iron concretions; moist; stiff; trace gravel	
	2		0.8/1.5	2 4 7	3.25		GYPSUM; moist; loose	560.0
	3							
5	4		0.5/1.5	2 2 2				
	5							
	6		0.7/1.5	2 4 6	1.5		Olive gray silty CLAY; few dark yellow brown mottling; laminated; some bottom ash; moist; stiff; trace gravel	555.0
	7							
10	8		1.3/2.0				16 mm VST@ 9.5' = 0.8, 3.9, 4.2	
	9						Bottom ASH; moist to wet; loose	
	10		0.5/1.5	1 0 1			Fly ASH; wet; soft	550.0
	11							
15	12		1.5/1.5	0 1 0			Little bottom ASH	
	13				0.5			
	14		1.5/1.5	0 0 1	0.5			545.0
	15				<0.25			
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128336.73
Easting: 2456638.09

Weather: Sunny 65 F

Boring Information:
Boring No: B-3CCR
Well No: B-3CCR
Surf Elev.: 564.05

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 10/20/2023
Finish: 10/20/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	564.0
0	1						Fly ash with bottom ASH; moist; moderately firm	
	2		0.7/1.5	1 3 4	1.0			
	3							560.0
5	4		1.5/1.5	1 0 0	<0.25		Light gray lime SLUDGE; with rootlets; some organics; moist; soft	
	5							
	6		0.9/1.5	0 1 1	<0.25			
	7							555.0
10	8		1.1/1.5	0 0 0	<0.25		Fly ASH; moist to wet; soft; strong petroleum odor	
	9						Some organic matter; strong petroleum odor	
	10		1.5/1.5	0 0 0	<0.25			
	11							550.0
15	12		1.4/1.5	0 0 0				
	13						Faint odor	
	14		1.5/1.5	0 0 0				
	15							545.0
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1127789.13
Easting: 2456023.78

Weather: Sunny 62 F

Boring Information:
Boring No: B-4
Well No: B-4
Surf Elev.: 555.18

Depth Information:
Total: 34.5'
Auger: 34.5'
Core: -

Dates:
Start: 10/09/2023
Finish: 10/09/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: R. Carson
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	555.2
0	1						Gray silty CLAY; with cinders; dry; stiff	
	2		0.8/1.5	3 6 6	3.3		Brown silty CLAY; dry; stiff	
	3							
5	4		0.2/1.5	4 6 5	4.0		Gray silty CLAY; with cinders	550.0
	5							
	6		0.7/1.5	2 3 4	1.0		Brown/gray silty CLAY; moist; moderately stiff; trace cinders	
	7							
10	8		0.6/1.5	1 3 4			Gray silty CLAY; moist; moderately stiff; 16 mm VST@ 9.5' = 4.4, 2.5, 2.7	545.0
	9				1.0			
	10		0.8/1.5	0 1 2	0.5		Gray silty CLAY; moist; soft	
	11							
15	12		0.9/1.5	1 2 3	1.0		Brown/gray silty CLAY; mottling; moist; soft	540.0
	13							
	14		0.6/1.5	0 2 2	1.1			
	15							
20	16		1.3/2.0				Brown silty CLAY; oxidation staining; moist; moderately stiff; 16 mm VST@ 19.5' = 2.6, 1.7, 1.7	535.0
	17				2.1			
	18		0.8/1.5	0 0 1	0.5			
	19							
25	20		0.9/1.5	0 0 1	0.2-0.5		Soft	530.0
	21							
	22		1.5/1.5	0 1 2	0.1		Brown/gray silty LOAM; wet; soft; trace sand	
	23							
30	24		1.5/1.5	0 0 0	0.1		Brown sandy LOAM; wet; very soft	525.0
	25							
	26		1.5/1.5	0 0 0	0.5		Brown/gray silty CLAY; wet; soft	
	27							
35							End of Boring = 34.5 Feet	520.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1127802.23
Easting: 2456057.41

Weather: Sunny 78 F

Boring Information:
Boring No: B-4U
Well No: B-4U
Surf Elev.: 563.01

Depth Information:
Total: 29.0'
Auger: 29.0'
Core: -

Dates:
Start: 10/12/2023
Finish: 10/12/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	563.0
0	1						Black CINDERS; moist; loose	
	2		0.4/1.5	3 6 1				560.0
	3						Black silty CLAY; with fly ash; moist; stiff; some organic fragments	
5	4		0.7/1.5	1 0 1	2.75			
	5						Olive gray silty CLAY; some dark yellow brown mottling; moist; stiff	
	6		0.7/1.5	1 2 2	1.75		Black CINDERS; wet; loose	555.0
	7							
10	8		0.8/1.5	1 0 0	<0.25		Black fly ASH; wet; soft	
	9							
	10		1.0/1.5	2 4 3				550.0
	11							
15	12		0.9/1.5	0 2 2				
	13							
	14		1.1/1.5	1 3 6				545.0
	15						Black CINDERS; wet; loose	
20	16		0.7/1.5	2 3 4				
	17						Light gray/black fly ASH	
	18		1.2/1.5	0 0				540.0
	19						Olive gray silty CLAY; some dark yellow brown mottling; moist; moderately stiff; trace organics	
25	20		0.4/1.5	0 0 1	1.25			
	21							
	22		1.9/2.0					535.0
					1.25		End of Boring = 29 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1127732.94
Easting: 2455960.98

Weather: Sunny 65 F

Boring Information:
Boring No: B-4L
Well No: B-4L
Surf Elev.: 533.51

Depth Information:
Total: 21.5'
Auger: 21.5'
Core: -

Dates:
Start: 10/10/2023
Finish: 10/10/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	533.5
0	1						Dark gray silty CLAY; some dark yellow brown mottling; some organic fragments; moist; soft; some gravel; trace coal fragments	
	2		0.4/1.5	3 2 1	0.25			
	3							530.0
5	4		0.7/1.5	1 1 1	<0.25			
	5						Grading to light gray	
	6		1.4/1.5	1 2 2	0.25		Light gray silty CLAY; some dark yellow brown mottling; few iron concretions; moist; soft	
	7							525.0
10	8		1.5/1.5	1 1 2	0.75			
	9							
	10		1.2/2.0				16 mm VST@ 12.0' = 5.6, 2.6, 2.4	
	11				1.75		Gray clayey SILT; some dark yellow brown mottling; trace iron concretions; laminated; moist to wet; soft	520.0
15	12		1.4/1.5	0 1 2	0.5			
	13							
	14		1.5/1.5	0 0 0	<0.25		Light gray silty CLAY; some dark yellow brown mottling; moist; soft	
	15							515.0
20	16		0.0/2.0				Shelby tube attempted but no recovery; 20 mm VST@ 19.5' = 4.2, 1.4, 1.6	
							End of Boring = 21.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1127834.10
Easting: 2456152.87

Weather: Sunny 64 F

Boring Information:
Boring No: B-4CCR
Well No: B-4CCR
Surf Elev.: 567.59

Depth Information:
Total: 21.0'
Auger: 21.0'
Core: -

Dates:
Start: 10/17/2023
Finish: 10/17/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	567.6
0	1						Dark yellow brown silty CLAY; moist; stiff; some bottom ash	
	2		0.8/1.5	1 3 3	1.75			565.0
	3						Dark gray fly ash with bottom ASH; moist; moderately loose	
5	4		0.4/1.5	2 2 2				
	5						Gray lime SLUDGE; with layers of fly ash; wet; soft; few organic fragments	
	6		1.2/1.5	2 3 3	<0.25			560.0
	7							
10	8		1.4/1.5	0 0 0	<0.25		Black fly ASH; moist; soft; trace to some organic fragments	
	9							
	10		1.5/1.5	1 0 0	<0.25			555.0
	11							
15	12		1.5/1.5	0 0 1	<0.25		Black bottom ash with fly ASH; wet; moderately loose; some organic fragments	
	13				<0.25		Black fly ash with bottom ASH; wet; moderately soft; some organic fragments	
	14		0.2/1.5	0 1 1				550.0
	15							
20	16		0.9/1.5	0 1 3			Black bottom ASH; wet; loose	
							End of Boring = 21 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1129302.48
Easting: 2455281.11

Weather: Cloudy, 62 F

Boring Information:
Boring No: B-5
Well No: B-5
Surf Elev.: 553.62

Depth Information:
Total: 39.5'
Auger: 39.5'
Core: -

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: S. Van Hook
Driller: A. Kargel
Helper(s): M. Sick

Dates:
Start: 10/06/2023
Finish: 10/06/2023

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	553.6
0	1						Greenish brown SILT; dry	
	2		0.9/1.5	3 7 7	4.5			550.0
	3							
5	4		0.7/1.5	3 4 8	3.5		Greenish brown silty CLAY	
	5							
	6		0.5/1.5	2 2 4	2.5		Brown mottling	
	7							545.0
10	8		0.9/1.5	2 4 5	1.5			
	9							
	10		0.9/1.5	2 5 6	3.5			
	11							540.0
15	12		0.8/1.5	3 4 7			16 mm VST@15.0' = 1.3, 3.3, 3.2	
	13				3.0			
	14		0.7/1.5	2 5 6	3.5			
	15							535.0
20	16		0.9/1.5	1 5 8	4.5		Dark gray clayey SILT; moist; wood chucks	
	17							
	18		0.9/1.5	2 5 5	2.0			
	19							530.0
25	20		1.9/2.0				16 mm VST@ 24.0' = 3.7-3.8	
	21							
	22		1.3/1.5	0 1 2	0.5		Brown silty CLAY; moist	
	23							525.0
30	24		1.2/1.5	0 0 1	<0.25		Saturated	
	25							
	26		1.2/1.5	0 1 2	0.5		Brown silty CLAY; trace greenish gray and dark brown mottling	
	27							520.0
35	28		1.5/1.5	0 2 2	0.25		BroVery little silt	
	29							
	30		1.5/1.5	0 0 2				
	31							515.0
40							End of Boring = 39.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1129295.29
Easting: 2455215.62

Weather: Sunny, 87 F

Boring Information:
Boring No: B-5L
Well No: B-5L
Surf Elev.: 534.00

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 10/03/2023
Finish: 10/03/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: R. Carson
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	534.0
0	1						Dark brown silty CLAY; dry; stiff	
	2		0.5/1.5	4 6 5	>4.5			
	3							530.0
5	4		1.0/1.5	5 5 7				
	5				2.7			
	6		0.2/1.5	2 2 2				
	7						Soft	525.0
10	8		1.6/2.0		0.5		Gray silty CLAY; soft; 20 mm VST@ 9.5' = 5.8, 2.5, 2.9	
	9				0.2-0.7			
	10		1.5/1.5	0 2 1			Gray CLAY; very soft	
	11							520.0
15	12		1.5/1.5	0 1 2				
	13				0.2-0.5			
	14		1.5/1.5	0 0 0	0.1		Gray sandy CLAY; very soft	
	15						Gray SAND; 20 mm VST@19.0' = 7.2, 3.2, 3.2	515.0
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1129333.75
Easting: 2455341.56

Weather: Sunny, 87 F

Boring Information:
Boring No: B-5CCR
Well No: B-5CCR
Surf Elev.: 552.59

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 10/03/2023
Finish: 10/03/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: R. Carson
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	552.6
0	1						Bottom ASH	
	2		0.9/1.5	14 12				550.0
	3				4.5		Dark gray sandy LOAM; stiff	
5	4		1.4/1.5	3 2 3	1.0		Dark gray SAND; bottom ash; wet	
	5							
	6		1.5/1.5	1 1 1	1.0		Dark gray sandy LOAM; bottom ash	545.0
	7							
10	8		0.6/1.5	1 4 6			Black SAND; bottom ash; wet	
	9							
	10		0.4/1.5	5 9 4				540.0
	11							
15	12		0.2/1.5	0 1 1			Black SAND; coarse grained; bottom ash; wet	
	13							
	14		0.2/1.5	3 2 3				535.0
	15							
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
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Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1130094.72
Easting: 2455316.59

Weather: Mostly Cloudy, 71 F

Boring Information:
Boring No: B-6
Well No: B-6
Surf Elev.: 553.93

Depth Information:
Total: 40.0'
Auger: 40.0'
Core: -

Dates:
Start: 10/05/2023
Finish: 10/05/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: S. Van Hook
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	553.9
0	1		1.3/2.0	5 15 37 33			Dark brown SILTY (fill)	
	2		0.8/2.0	5 5 6 7	+4.5		Dark brown silty CLAY; moist	
	3							550.0
5	4		0.7/1.5	2 3 5	2.25			
	5							
	6		0.8/1.5	1 3 7	2			545.0
	7							
10	8		0.8/1.5	5 8 7			8.2 mm VST@ 9.5' = 1.3-1.4	
	9				4.0			
	10		0.9/1.5	3 4 6	4.0			540.0
	11							
15	12		1.2/1.5	2 4 6	3.0		13 mm VST@ 15.0' = 4.7-4.6	
	13							
	14		2.0/2.0					535.0
20	15		1.4/2.0	2 5 6 10	2.7			
	16		1.5/2.0	5 10 11 12	4.2		Dark greenish gray silty CLAY; moist	
	17		1.3/2.0	2 4 6 8	3.0		Gray CLAY and SAND; with coal; brown mottling	530.0
25	18		1.6/2.0	1 5 6 6	2.0		Gray silty CLAY; 6.1 mm VST@ 25.5' = 4.0-3.9	
	19		2.0/2.0	1 1 2 2	1.0		Gray clayey SILT	
	20		1.9/2.0	0 0 0 2	0.25			525.0
30	21							
	22		2.0/2.0	0 0 0 2	<0.25		Gray silty CLAY; yellow brown mottling	520.0
	23		2.0/2.0	0 0 0 0	<0.25		Brown CLAY; mottling light brown; trace sand	
35	24		1.8/2.0	0 2 2 3	1.0		Light gray clayey sandy SILT; mottling yellow brown	
	25							515.0
40							End of Boring = 40 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1130067.17
Easting: 2455388.17

Weather: Sunny, 65 F

Boring Information:
Boring No: B-6CCR
Well No: B-6CCR
Surf Elev.: 553.32

Depth Information:
Total: 24.5'
Auger: 24.5'
Core: -

Dates:
Start: 10/20/2023
Finish: 10/20/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	553.3
0	1						Gray fly ASH; moist; friable; some gypsum; trace bottom ash	
	2		1.0/1.5	13 12				550.0
	3							
5	4		0.9/1.5	5 3 2			Bottom ASH; moist; loose	
	5							
	6		1.1/1.5	2 2 2	<0.25		Fly ASH; moist to wet; soft	545.0
	7							
10	8		1.5/1.5	1 0 0	<0.25		Fly ASH; wet; soft	
	9							
	10		0.6/1.5	0 0 0	<0.25			540.0
	11							
15	12		1.5/1.5	0 0 0	<0.25			
	13							
	14		1.5/1.5	0 0 0	<0.25			535.0
	15							
20	16		1.5/1.5	0 0 0	<0.25			
	17							
	18		1.5/1.5	0 0 0	<0.25			530.0
	19							
25							End of Boring = 24.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1130413.91
Easting: 2455917.71

Weather: Haze, 79 F

Boring Information:
Boring No: B-7
Well No: B-7
Surf Elev.: 552.56

Depth Information:
Total: 39.5'
Auger: 39.5'
Core: -

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: R. Carson
Driller: A. Kargel
Helper(s): M. Sick

Dates:
Start: 10/04/2023
Finish: 10/04/2023

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	552.6
0	1						Brown/gray sandy CLAY; mottling; dry; very stiff	
	2		0.6/1.5	3 5 6	>4.5			550.0
	3						Brown silty CLAY; slightly moist; very stiff	
5	4		0.5/1.5	3 4 7	2.5			
	5						BrowGray silty LOAM; slightly moist; stiff	
	6		0.7/1.5	3 4 5	2.5			545.0
	7						Gray silty CLAY; 16 mm VST@ 9.5' = 13+, 5.2, 5.2	
10	8		0.7/1.5	2 3 6	2.4		Gray silty LOAM	
	9							
	10		0.8/1.5	2 4 7	2.2		Gray silty LOAMSlightly moist; fractured	540.0
	11							
15	12		0.9/1.5	2 4 7	2.3			
	13						Brown sandy LOAM; moist; stiff	
	14		0.5/1.5	2 4 5	2.5			535.0
	15						Brown/gray silty LOAM; mottling; moist; stiff; 16 mm VST@ 19.5' = 11.4, 6.1, 6.2	
20	16		2.0/2.0					
	17				2.1		Brown/gray silty CLAY; mottling; moist; stiff	
	18		1.2/1.5	2 3 5	1.6			530.0
	19						Red brown SAND; moist; loose	
25	20		1.4/1.5	2 3 5	1.7		Brown sandy LOAM; wet; soft	
	21							525.0
	22		1.5/1.5	0 1 2	0.2		Brown/gray silty LOAM; with sand; moist; soft	
	23							
30	24		1.5/1.5	0 2 2	0.5			
	25				1.2			
	26		1.5/1.5	0 1 1	0.2			520.0
	27							
35	28		1.5/1.5	0 0 2	0.5			
	29							
	30		1.5/1.5	1 1 1	0.8		Gray SILT; very moist; soft	515.0
	31							
40							End of Boring = 39.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1130310.33
Easting: 2455947.06

Weather: Cloudy, 58 F

Boring Information:
Boring No: B-7CCR
Well No: B-7CCR
Surf Elev.: 552.18

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 10/19/2023
Finish: 10/19/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	552.2
0	1						Fly ash, bottom ASH and cinder (fill); moist to wet; soft	
	2		1.0/1.5	3 2 2	0.25			550.0
	3							
5	4		1.0/1.5	0 1 1	<0.25		Bottom ASH; moist; loose	
	5						Fly ASH; wet; soft	
	6		0.6/1.5	0 0 0	<0.25			545.0
	7							
10	8		1.1/1.5	0 0 0	<0.25			
	9							
	10		1.5/1.5	0 0 0	<0.25			540.0
	11							
15	12		1.3/1.5	0 0 0	<0.25			
	13							
	14		1.5/1.5	0 0 0	<0.25			535.0
	15							
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1130083.21
Easting: 2456391.16

Weather: Cloudy, 58 F

Boring Information:
Boring No: B-8U
Well No: B-8U
Surf Elev.: 551.74

Depth Information:
Total: 33.5'
Auger: 33.5'
Core: -

Dates:
Start: 10/19/2023
Finish: 10/19/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	551.7
0	1						Dark gray to brown silty CLAY; moist; moderatyely firm; some organic fragments; some bottom ash	
	2		0.8/1.5	1 2 2	1.0			550.0
	3							
5	4		0.9/1.5	3 5 5	4.0			
	5							545.0
	6		1.0/1.5	3 5 6	4.5			
	7							
10	8		1.8/2.0				16 mm VST@ 9.5' = 10.0, 3.8, 3.9	
	9				0.75			
	10		1.1/1.5	2 2 5	1.5		Color grades to light brown; more clayey; some dark yellow brown mottling; some iron oxide modules	540.0
	11							
15	12		0.8/1.5	2 3 5	1.5		Black/dark brown silty CLAY; moist; stiff; trace coal fragments	
	13							
	14		0.9/1.5	2 4 7	3.0			535.0
	15							
20	16		1.7/2.0		2.25		16 mm VST@ 19.5' = 11.2, 4.0, 3.8	
	17							
	18		1.0/1.5	3 6 7	2.5		Trace organic fragments	530.0
	19							
25	20		1.3/1.5	1 1 3	0.5		16 mm VST@ 24.5' = 5.8, 3.2, 3.0 More silty; some organics	
	21							
	22		1.5/1.5	1 1 2	0.5		Dark gray clayey SILT; moist to wet; moderately soft; some organics	525.0
	23							
30	24		1.3/1.5	1 1 2	0.75			
	25							
	26		1.5/1.5	0 1 1	0.5			520.0
							End of Boring = 33.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1130467.06
Easting: 2455885.37

Weather: Sunny, 85 F

Boring Information:
Boring No: B-7L
Well No: B-7L
Surf Elev.: 533.19

Depth Information:
Total: 20.0'
Auger: 20.0'
Core: -

Dates:
Start: 10/02/2023
Finish: 10/02/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: K. Finke
Driller: M. Sick
Helper(s): A. Kargel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	533.2
0	1				3.5		Gray silty CLAY; dry; very firm; trace sand	
	2		0.5/1.5	3 5 7				530.0
	3							
5	4		0.5/1.5	3 4 7	1.5		Reddish brown clayey SILT; moist; trace sand	
	5							
	6			3 3 3	1.0		Brownish red SAND; wet	525.0
	7							
10	8		0.6/1.5	W 3 2			20 mm VST@ 10.0' = 3.8, 1.2	
							Brownish red SAND with dark black SILT; ash	
	9				0.25			
	10		1.5/1.5	2 1 2			ASH	
	11				0.25		Gray silty CLAY; wet; soft	520.0
15	12		0.9/1.5	W W W			Gray clayey SILT; moist; soft	
					0.25			
	13							
	14		1.1/1.5	W W W	0			515.0
	15							
20							20 mm VST@ 20.0' = 6.7, 3.0, 3.1	
							End of Boring = 20 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1130109.51
Easting: 2456566.64

Weather: Haze, 79 F

Boring Information:
Boring No: B-8L
Well No: B-8L
Surf Elev.: 530.62

Depth Information:
Total: 24.5'
Auger: 24.5'
Core: -

Dates:
Start: 10/04/2023
Finish: 10/04/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: R. Carson
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	530.6
0	1						Brown silty LOAM; dry; hard	
	2		0.8/1.5	4 6 7	>4.5			
	3							
5	4		0.2/1.5	4 3 4			Brown silty CLAY; moist; stiff	525.0
	5							
	6		1.1/1.5	1 1 1	0.1		Wet; soft	
	7							
10	8		1.5/1.5	1 1 1			20 mm VST@9.5' = 5.4, 3.4, 3.8	
	9				0.0-0.1		Wet; very soft	520.0
	10		1.6/2.0				Some mottling; wet; soft	
	11				0.5			
15	12		1.4/1.5	1 1 1	0.5		Brown sandy LOAM; wet; soft	515.0
	13						Gray sandy LOAM; wet; soft	
	14		1.1/1.5	0 1 3			Gray SAND; loose; trace clay	
	15							
20	16		1.4/1.5	0 0 1				
	17				0.2		Gray SILT; wet; soft	510.0
	18		1.5/1.5	0 0 0			20 mm VST@ 22.0' = 6.8, 3.4, 3.8	
	19				0.1		Gray sandy LOAM; wet; soft	
25							End of Boring = 24.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1129690.26
Easting: 2456402.29

Weather: Cloudy, 58 F

Boring Information:
Boring No: B-9U
Well No: B-9U
Surf Elev.: 552.15

Depth Information:
Total: 40.0'
Auger: 40.0'
Core: -

Dates:
Start: 10/19/2023
Finish: 10/19/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	552.2
0	1						Dark brown/gray silty CLAY; moist; stiff	
	2		0.7/1.5	3 7 7	4.0			550.0
	3							
5	4		1.0/1.5	3 4 6	3.75			
	5							
	6		0.5/1.5	3 3 6	2.25		More clayey; trace bottom ash fragments	545.0
	7							
10	8		1.7/2.0				Yellow brown silty CLAY; moist; stiff; laminated; trace iron nodules; 16 mm VST@ 9.5' = 7.5, 4.1, 3.5	
	9				1.0			540.0
	10		0.8/1.5	2 4 5	2.75		Black silty CLAY; few cinders (bottom ash); moist; stiff	
	11							
15	12		0.8/1.5	3 5 8	3.0			
	13							
	14		0.7/1.5	2 4 6	2.5			535.0
	15							
20	16		1.9/2.0				16 mm VST@ 19.5' = 11.3, 6.0, 5.6	
	17				3.25			
	18		0.8/1.5	2 5 7	2.25		Trace organic fragments; trace coal fragments	530.0
	19							
25	20		0.9/1.5	1 4 5	2.25		16 mm VST@ 24.5' = 7.0, 3.8, 3.5	
	21		1.1/2.0	2 5 6 7	2.5 0.75		Light brown silty clay to CLAY; moist; stiff; some iron oxidized nodules; trace organic fragments; rootlets; more clayey at 26.5'	525.0
	22		1.2/2.0	3 4 5 6	0.75		Gray CLAY	
30	23		1.5/2.0	1 2 4 5	1.0		Some dark yellow brown mottling; some iron oxidized nodules	
	24		1.6/2.0	0 1 2 3	0.5		Black to dark gray clayey SILT; moist; soft; trace organic fragments	520.0
35	25		1.7/2.0	0 2 3 4	0.5			
	26		2.0/2.0	0 1 3 3	1.0		Dark gray clayey SILT; moist; moderately stiff; with organic fragments; some coal; glauconite the last 0.3'	515.0
	27		2.0/2.0	0 1 2 4	0.75		Dark gray clayey SAND; moist; moderately stiff; trace coal fragments	
40							Dark gray sandy CLAY; moist; moderately stiff; trace coal fragments	
							End of Boring = 40 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1129680.19
Easting: 2456242.16

Weather: Sunny, 69 F

Boring Information:
Boring No: B-9CCR
Well No: B-9CCR
Surf Elev.: 553.97

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 10/18/2023
Finish: 10/18/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	554.0
0	1						Bottom ASH; moist	
	2		0.3/1.5	1 6 4				
	3							550.0
5	4		1.5/1.5	0 1 0	<0.25		Fly ASH; wet; soft	
	5							
	6		1.5/1.5	0 0 0	<0.25			
	7							545.0
10	8		1.5/1.5	0 0 0	<0.25			
	9							
	10		1.5/1.5	0 0 1	<0.25			
	11							540.0
15	12		1.5/1.5	0 0 0	<0.25			
	13							
	14		1.5/1.5	0 0 0	<0.25			
	15							535.0
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1129778.29
Easting: 2456635.89

Weather: Haze, 79 F

Boring Information:
Boring No: B-9L
Well No: B-9L
Surf Elev.: 524.07

Depth Information:
Total: 19.5'
Auger: 19.5'
Core: -

Dates:
Start: 10/04/2023
Finish: 10/04/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: R. Carson
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	524.1
0	1						Brown silty LOAM; moist; soft	
	2		1.4/1.5	1 2 2	1.0 0.5			
	3							520.0
5	4		1.5/1.5	1 1 1	1.0			
	5				0.1		Brown SAND; medium grained; moist; soft	
	6		2.0/2.0					
	7							515.0
10	8		1.0/1.5	0 0 1	0.1		Brown sandy CLAY; wet; soft; gray at 10.5'	
	9							
	10		0.9/1.5	0 1 2	0.5		Gray silty CLAY; wet; soft	
	11							510.0
15	12		1.5/1.5	0 0 1	0.5 0.2			
	13							
	14		1.5/1.5	0 0 0	0.3			
	15						16 mm VST@19.5' = 5.4, 2.9, 3.1	505.0
20							End of Boring = 19.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1129518.55
Easting: 2455869.56

Weather: Sunny, 65 F

Boring Information:
Boring No: B-10CCR
Well No: B-10CCR
Surf Elev.: 555.35

Depth Information:
Total: 24.5'
Auger: 24.5'
Core: -

Dates:
Start: 10/20/2023
Finish: 10/20/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	555.4
0	1						Bottom ASH; moist to wet; loose	
	2		0.8/1.5	4 5 3				
	3							
5	4		0.8/1.5	2 7 12			Moist; loose	550.0
	5							
	6		1.3/1.5	1 2 1	<0.25		Fly ASH; moist to wet; soft; some bottom ash	
	7							
10	8		1.4/1.5	1 0 1	<0.25		Trace bottom ash	545.0
	9							
	10		1.3/1.5	0 0 0	<0.25		Wet; soft	
	11							
15	12		1.1/1.5	4 1 2			Bottom ASH; wet; loose	540.0
	13							
	14		0.9/1.5	0 0 0	<0.25		Fly ASH; wet; soft	
	15							
20	16		1.5/1.5	0 0 0	<0.25			535.0
	17							
	18		1.5/1.5	0 0 0	<0.25			
	19							
25							End of Boring = 24.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128891.26
Easting: 2456234.99

Weather: Sunny, 69 F

Boring Information:
Boring No: B-11U
Well No: B-11U
Surf Elev.: 552.27

Depth Information:
Total: 29.5'
Auger: 29.5'
Core: -

Dates:
Start: 10/18/2023
Finish: 10/18/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	552.3
0	1						Black silty CLAY; with sand and gravel; moist; moderately stiff	
	2		0.3/1.5	1 3 10/3"				550.0
	3							
5	4		0.4/1.5	1 1 2	1.25		Yellow brown silty CLAY; some dark yellow mottling; some iron oxide nodules; moist; moderately stiff	
	5							
	6		0.8/1.5	1 2 3	2.5			545.0
	7							
10	8		2.0/2.0				16 mm VST@ 9.5' = 9.2, 2.8, 2.8	
	9				2.0			
	10		1.2/1.5	2 4 5				540.0
	11				3.5		Gray	
15	12		0.9/1.5	4 7 7	2.25		Organic fragments	
	13						Dark gray clayey SILT; moist; moderately firm; some organic fragments	
	14		1.3/1.5	1 4 6	2.0			535.0
	15							
20	16		1.8/2.0				Dark gray brown silty CLAY; moist; stiff; 16 mm VST@19.5' = 13+, 7.4, 7.6	
	17				2.5			
	18		1.5/1.5	0 3 4	1.25		Yellow brown silty CLAY; some dark yellow brown mottling; iron oxide and manganese oxide concretions; moist; moderately stiff	530.0
	19						16 mm VST@ 24.5' = 4.9, 3.1, 3.1	
25	20		1.5/1.5	0 0 0	<0.25		Yellow brown clayey silt to SILT; wet; soft	
	21							
	22		1.5/1.5	0 0 0				525.0
	23							
30							End of Boring = 29.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128504.92
Easting: 2455639.11

Weather: Sunny, 74 F

Boring Information:
Boring No: B-12U
Well No: B-12U
Surf Elev.: 553.41

Depth Information:
Total: 8.5'
Auger: 8.5'
Core: -

Dates:
Start: 10/23/2023
Finish: 10/23/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	553.4
0	1						Dark yellow brown silty CLAY; some bottom ash; moist; stiff; trace iron oxide nodules	
	2		1.1/1.5	5 6 7	3.75			550.0
	3							
5	4		1.0/1.5	5 5 6	3.25			
	5							
	6		1.5/1.5	3 5 5	2.75			545.0
							End of Boring = 8.5 Feet	
10								540.0
15								535.0
20								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: Cloudy, 72 F

Boring Information:
Boring No: B-13BN
Well No: B-13BN
Surf Elev.: 0

Depth Information:
Total: 10.5'
Auger: 10.5'
Core: -

Dates:
Start: 10/24/2023
Finish: 10/24/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0	1						Light brown clayey silt to silty CLAY; moist; firm; few dark yellow brown mottling; trace iron oxide nodules	
	2		1.0/1.5	3 5 6	4.25			
	3							
5	4		0.7/1.5	4 4 7	3.75			-5.0
	5						Brown silty CLAY; moist; very firm; trace iron oxide nodules	
	6		1.0/1.5	5 8 11	4.75+		16 mm VST@ 8.0' = 13+, 6.7, 6.5	
	7		1.7/2.0					
10					3.5		End of Boring = 10.5 Feet	-10.0
15								-15.0
20								-20.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: Cloudy, 72 F

Boring Information:
Boring No: B-13BS
Well No: B-13BS
Surf Elev.: 0

Depth Information:
Total: 10.5'
Auger: 10.5'
Core: -

Dates:
Start: 10/24/2023
Finish: 10/24/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0	1						Dark brown clayey silt to silty CLAY; moist; very firm; trace iron oxide nodules; trace rootlets	
	2		1.0/1.5	4 4 5	4.5+			
	3							
5	4		0.5/1.5	4 5 6	4.5			-5.0
	5							
	6		1.1/1.5	3 7 9	4.5+		Grades to dark gray; trace organics; trace rootlets; 16 mm VST@8.5' = 13+, 6.5, 5.8	
	7		1.5/2.0					
10					3.5		End of Boring = 10.5 Feet	-10.0
15								-15.0
20								-20.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: Cloudy, 72 F

Boring Information:
Boring No: B-13L
Well No: B-13L
Surf Elev.: 0

Depth Information:
Total: 16.0'
Auger: 16.0'
Core: -

Dates:
Start: 10/24/2023
Finish: 10/24/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0	1						Dark brown clayey silt to silty CLAY; moist; very firm	
	2		1.0/1.5	4 5 6	4.5+			
	3							
5	4		1.0/1.5	4 5 7	4.5			-5.0
	5							
	6		1.4/1.5	3 7 10	3.75		Some rootlets; some manganese oxide nodules	
	7							
10	8		1.5/1.5	4 6 10	3.5		Trace rootlets; some manganese oxide nodules	-10.0
	9							
	10		1.5/1.5	3 6 8	2.5		Trace rootlets; some iron oxide nodules	
	11							
15	12		1.3/1.5	4 4 7	2.25		Light gray silty CLAY; moist; firm; some organics; some iron staining; few iron oxide nodules	-15.0
							End of Boring = 16 Feet	
20								-20.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 0
Easting: 0

Weather: Sunny, 74 F

Boring Information:
Boring No: B-13LF
Well No: B-13LF
Surf Elev.: 0

Depth Information:
Total: 26.0'
Auger: 26.0'
Core: -

Dates:
Start: 10/23/2023
Finish: 10/23/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	0.0
0	1						Yellow brown clayey SILT; dry; stiff	
	2		0.2/1.5	5 7 5				
	3							
5	4		0.8/1.5	4 5 6	3.75		Light gray silty CLAY; moist; stiff	-5.0
	5							
	6		0.5/1.5	5 50/4"			GYPSUM; dry; loose	
	7							
10	8		0.3/1.5	27 0/3.5				-10.0
	9							
	10		0.8/1.5	35 50/5"				
	11							
15	12		0.7/1.5	37 50/4"				-15.0
	13							
	14		0.4/1.5	0/4.5				
	15							
20	16		1.2/1.5	13 34 50/3"	3.75		Dark yellow brown silty CLAY; moist; firm	-20.0
	17						GYPSUM	
	18		0.6/1.5	50/5"				
	19							
25	20		0.4/1.5	50/5"				-25.0
							End of Boring = 26 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128504.92
Easting: 2455639.11

Weather: Sunny, 74 F

Boring Information:
Boring No: B-12U-
Well No: B-12U-
Surf Elev.: 553.41

Depth Information:
Total: 8.5'
Auger: 8.5'
Core: -

Dates:
Start: 10/23/2023
Finish: 10/23/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: M. Hewitt
Driller: M. Sick
Helper(s): B. Hummel

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	553.4
0	1						Dark yellow brown silty CLAY; some bottom ash; moist; stiff; some organic fragments; trace iron oxide nodules	
	2		0.3/1.5	5 5 6	3.25			550.0
	3							
5	4		1.0/1.5	3 4 5	4.0			
	5							
	6		0.7/1.5	3 3 3	1.5			545.0
	7							
10	8		1.5/2.0		1.5		16 mm VST@ 9.5' = 10.8, 5.0, 4.3	
	9							
	10		0.8/1.5	2 5 9	3.5			540.0
	11							
15	12		0.9/1.5	2 5 7	3.25		Light gray silty cLAY; with bottom ash; moist; stiff	
	13							
	14		1.0/1.5	1 4 8	4.0			535.0
	15							
20	16		1.7/2.0		2.5		Yellow brown silty CLAY; moist; moderately stiff; few manganese oxide nodules; 16 mm VST@ 19.5' = 13+, 6.0, 6.0	
	17							
	18		1.4/1.5	1 2 3	1.5			530.0
	19							
25	20		1.5/1.5	1 2 4	0.75		16 mm VST@ 24.5' = 9.5, 4.0, 3.7	
	21							
	22		1.5/1.5	2 2 3	0.75			525.0
	23							
30							End of Boring = 29.5 Feet	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1128541.37
Easting: 2455514.61

Weather: Sunny, 87 F

Boring Information:
Boring No: B-12L
Well No: B-12L
Surf Elev.: 533.69

Depth Information:
Total: 23.0'
Auger: 23.0'
Core: -

Dates:
Start: 10/03/2023
Finish: 10/03/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: R. Carson
Driller: A. Kargel
Helper(s): M. Sick

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	533.7
0	1						Brown silty CLAY; dry; very stiff	
	2		0.4/1.5	4 8 7	4			
	3							530.0
5	4		0.6/1.5	2 5 5				
	5				4.0			
	6		1.2/1.5	2 2 3	0.7		Brown silty CLAY; moist; soft	
	7							525.0
10	8		1.2/1.5	1 2 3			20 mm VST@ 10.0' = 3.8, 3.9	
	9				1.0			
	10		1.4/1.5	1 2 3	1.2		Moist; stiff	
	11							520.0
15	12		2.0/2.0					
	13				4.5		Gray/brown silty CLAY; mottling; stiff	
	14		1.5/1.5	1 2 4	0.5			
	15						Gray SILT; soft	515.0
20	16		1.0/1.5	0 6 7			Brown SAND; saturated; 20 mm VST@ 19.5' = 3.8, 1.5, 1.4	
	17						Gray sandy CLAY; moist	
	18		1.4/1.5	5 25 50/4.5	>4.5		Gray SHALE; dry; hard	
							End of Boring = 23.5 Feet	510.0
25								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 220408

Location:
Coord. System:
Northing: 1130126.84
Easting: 2455243.51

Weather: Sunny, 85 F

Boring Information:
Boring No: B-6L
Well No: B-6L
Surf Elev.: 531.19

Depth Information:
Total: 23.5'
Auger: 23.5'
Core: -

Dates:
Start: 10/02/2023
Finish: 10/02/2023

Drilling Contractor:
Contractor Name: Geotechnics Soil & Material Testing
City: Hannibal, Missouri
Equipment: CME 55 w/ 3 1/4" HSA and 1.5" split spoon

Personnel:
Geologist: K. Finke
Driller: M. Sick
Helper(s): A. Kargel

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	531.2
0	1				1.5		Grayish brown silty CLAY; moist; firm; trace sand	530.0
	2		0.5/1.5	4 7 7				
	3							
5	4		0.5/1.5	3 2 3	1.5		Reddish brown silty CLAY; moist; firm; trace sand	525.0
	5							
	6		0.1/2.0					
	7							
10	8		0.6/1.5	W 1 1			20 mm VST@ 10.0' = 5.2, 2.8, 3.0	
	9				0		Gray clayey SILT; soft; moist	520.0
	10		1.5/1.5	W 1 1	0.5		Gray/reddish brown clayey SILT; soft; moist	
	11							
15	12		0.9/1.5	1 2 2				
	13				0-0.5		Gray SILT to reddish brown SAND; fine to coarse grained; moist	515.0
	14		1.1/1.5	W W W	0.25		Gray silty clay to clayey SILT; moist; soft; some organics, wood, bark, and ash	
	15							
20	16		0.9/1.5	W 1 2	3.9		20 mm VST@ 20.0' = 7.2, 3.9	
	17				0.5		Gray clayey SILT; moist	510.0
	18		0.9/1.5	W W W	0.5			
							End of Boring = 23.5 Feet	

Notes:

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 5/19/2025
Finish: 5/19/2025
WEATHER: 75°F, overcast

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: R. Hasenyager

BOREHOLE ID: BH01
Well ID: n/a
Surface Elev: 553.0 ft. MSL
Completion: 10.5 ft. BGS
Station: 1,128,975.90N
2,455,612.61E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▽ = Dry - During drilling
▽ = Dry - At completion
▽ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
	12/18 67%	SS	6-7 9 N=16				2	Very dark gray (10YR3/1), moist, stiff, GRAVEL with few ash, little clay, and trace sand. [FILL]		552	
							4			550	
	17/18 94%	SS	4-7 9 N=16				6	Yellowish brown (10YR5/6), moist, stiff, CLAY with some silt, trace sand, and trace ash. [FILL]		548	
	18/24 75%	SH					8			546	k = 6.9 x 10^{-7} cm/sec
	14/18 78%	SS	3-3 4 N=7				10	Yellowish brown (10YR5/6) with 10% gray (10YR5/1) mottles, moist, stiff, CLAY with some silt, trace sand and trace ash. [FILL]		544	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 5/19/2025
Finish: 5/19/2025
WEATHER: 75°F, overcast

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: R. Hasenyager

BOREHOLE ID: BH02
Well ID: n/a
Surface Elev: 552.5 ft. MSL
Completion: 20.0 ft. BGS
Station: 1,128,919.96N
2,456,031.83E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = Dry - During drilling
▼ = Dry - At completion
▼ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
							0	Very dark gray (10YR3/1), moist, stiff, GRAVEL with few ash, little clay, and trace sand. [FILL]		552	
	15/18 83%	SS	3-7 10 N=17				2				
							4	Dark brown (10YR3/3), moiste, stiff, CLAY with some silt little sand, trace gravel, and trace ash. [FILL]		550	
	15/18 83%	SS	3-7 9 N=16				6			548	
	9/18 50%	SS	3-4 4 N=8				8	Yellowish brown (10YR5/4) with 10% gray (10YR5/1) mottles, moist, stiff, CLAY with some silt and trace sand. [FILL]		546	
	18/18 100%	SS	3-4 5 N=9				10			544	
	15/18 83%	SS	3-4 5 N=9				12	Gray (10YR5/1), moist, medium, CLAY with some silt and trace sand. [FILL]		542	
	16/18 89%	SS	3-4 7 N=11				14	Gray (10YR5/1) with 10% yellowish brown (10YR5/6) mottles, moist, medium, CLAY with some silt and trace sand. [FILL]		540	
	20/24 83%	SH					16	Gray (10YR5/1), moist, medium, CLAY with some silt and trace sand. [FILL] Yellowish brown (10YR5/6), moist, medium, CLAY with some silt and trace sand. [FILL]		538	
	18/18 100%	SS	6-7 9 N=16				18	Black (10YR2/1), moist, medium, CLAY with some silt and trace sand. [FILL]		536 534	k = 6.9 x 10^{-7} cm/sec
							20				

NOTE(S):

APPENDIX A5:
IMPOUNDMENT CCR WELL LOGS

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1129934.00
Easting: 2455460.00

Weather: Cloudy 59F

Boring Information:
Boring No: D1
Well No: D1
Surf Elev.: 564.0

Depth Information:
Total: 40.5'
Auger: 40.5'
Core: -

Dates:
Start: 04/29/2024
Finish: 04/29/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	564.0
0	1						Dark gray ASH (fill)	
								560.0
5	2		2.0/2	WH				
	3							555.0
10	4		1.5/2	3 21 23 24				
	5							550.0
15				W				

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: D1 Boring No: D1 Well No: D1

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	6		1.3/2	W 1 3 W			Dark gray ASH (fill) Saturated	
	7							545.0
20	8		2.0/2	WOH				
	9							540.0
25	10		2.0/2	2 3 1 1			Groundwater sample at 25.0'	
	11							535.0
30				W				

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: D1 Boring No: D1 Well No: D1

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	12		2.0/2	W W 1 1				
	13							530.0
35	14		2.0/2	W W 1 1				
	15		2.0/2	W W 3 4				
	16		1.9/2		1.0		Dark gray clayey SILT	525.0
40							End of Boring = 40.5 Feet	
								520.0
45								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1130169.00
Easting: 2456076.00

Weather: Cloudy 59F

Boring Information:
Boring No: D2
Well No: D2
Surf Elev.: 558.0

Depth Information:
Total: 37.5'
Auger: 37.5'
Core: -

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

Dates:
Start: 04/29/2024
Finish: 04/29/2024

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	558.0
0	1						Dark gray ASH (fill)	555.0
5	2		0.0/2	WOH				
	3							550.0
10	4		2.0/2	WOH				
	5							545.0
15								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: D2 Boring No: D2 Well No: D2

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	6		2.0/2	WOH			Dark gray ASH (fill)	
	7							540.0
20	8		2.0/2	W W 1 1			Groundwater sample at 20.0'	
	9							535.0
25	10		2.0/2	WOH				
	11							530.0
30								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: D2 Boring No: D2 Well No: D2

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	12		0.0/2	WOH				
	13		0.0/2	WOH				525.0
	14		2.0/2	W W W 6				
35							Gray clayey SILT; brown mottling; saturated	
	15		1.5/2					
							End of Boring = 37.5 Feet	520.0
40								
								515.0
45								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1129640.00
Easting: 2455918.00

Weather: Sunny 66F

Boring Information:
Boring No: D3
Well No: D3
Surf Elev.: 554.9

Depth Information:
Total: 31.5'
Auger: 31.5'
Core: -

Dates:
Start: 04/30/2024
Finish: 04/30/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	554.9
0	1						Dark gray ASH (fill); wet	
5	2		2.0/2	2 2 2 3				550.0
	3							
10	4		2.0/2	WH				545.0
	5						Free water at 12.0'	
15								540.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: D3 Boring No: D3 Well No: D3

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	6		0.2/2	WH 1				
	7							
20	8		0.1/2	WH			Groundwater sample at 20.0'	535.0
	9							
25	10		0.3/2	WH				530.0
	11		2.0/2					
30					0.75		Brown silty CLAY; greenish gray mottling; Jar Sample SS6A	525.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: D3 Boring No: D3 Well No: D3

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	12		2.0/2					
							End of Boring = 31.5 Feet	
35								520.0
40								515.0
45								510.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1129248.00
Easting: 2455777.00

Weather: Sunny 66F

Boring Information:
Boring No: D4
Well No: D4
Surf Elev.: 561.00

Depth Information:
Total: 36.5'
Auger: 36.5'
Core: -

Dates:
Start: 04/30/2024
Finish: 04/30/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	561.0
0	1						Dark gray ASH (fill); dry	560.0
5	2		1.2/2	W 1 2 3				555.0
	3							
10	4		0.5/2	WOH			Moist	550.0
	5							
15								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: D4 Boring No: D4 Well No: D4

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	6		2.0/2	WOH			Wet	
								545.0
	7							
							Free water at 19.5'; Groundwater sample at 20.0'	
20	8		2.0/2	WOH				
								540.0
	9							
							Saturated	
25	10		2.0/2	WOH				
								535.0
	11							
30								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: D4 Boring No: D4 Well No: D4

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	12		2.0/2					530.0
	13		3.0/3	WH 2 3 2 1 1	0.75		Brown silty CLAY; greenish gray mottling	
35	14		2.0/2					525.0
							End of Boring = 36.5 Feet	
40								520.0
45								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1127471.67
Easting: 2456542.99

Weather: Sunny 72 F

Boring Information:
Boring No: L1
Well No: L1
Surf Elev.: 568.96

Depth Information:
Total: 38.0'
Auger: 38.0'
Core: -

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

Dates:
Start: 05/02/2024
Finish: 05/02/2024

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	569.0
0	1						Light gray SLUDGE (fill)	
								565.0
5	2		0.8/2	3 3 3 4				
	3							560.0
10	4		1.4/2	WOH				
	5							555.0
15				1				

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: L1 Boring No: L1 Well No: L1

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	6		1.4/2	1 2 1 3			Light gray SLUDGE (fill)	
	7							550.0
20	8		1.5/2	4 4 3 5			20.0' Water sample collected	
	9							545.0
25	10		1.6/2	2 3 4 5				
	11							540.0
30				WH				

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: L1 Boring No: L1 Well No: L1

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	12		1.1/2	WH 1 1 2				
	13							535.0
35	14		1.5/1.5	5 6 8	0.75		Olive green silty CLAY; dark brown mottling; saturated	
	15		2.0/2					
							End of Boring = 38 Feet	530.0
40								
								525.0
45								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1128216.45
Easting: 2456765.72

Weather: Sunny 72 F

Boring Information:
Boring No: L3
Well No: L3
Surf Elev.: 563.02

Depth Information:
Total: 36.5'
Auger: 36.5'
Core: -

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

Dates:
Start: 05/02/2024
Finish: 05/02/2024

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	563.0
0	1						Dark gray ASH (fill)	
								560.0
5	2		0.22	WH WH 1 1				
	3							555.0
							9.5' Free water	
10	4		2.0/2	WH				
	5							550.0
15								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: L3 Boring No: L3 Well No: L3

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	6		2.0/2	WH				
	7							545.0
20	8		1.6/2	1 1 1 1			20.0' Water sample collected; saturated	
	9							540.0
25	10		1.6/2	1 1 1 1				
	11							535.0
30	12		0.8/1	WH				

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: L3 Boring No: L3 Well No: L3

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	12			WH				
	13							
	14		1.5/1.5	WH 3 4 6			Brown silty CLAY; greenish gray mottling	530.0
35	15		1.8/2		0.75			
							End of Boring = 36.5 Feet	525.0
40								520.0
45								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1127968.18
Easting: 2457141.08

Weather: Sunny 72 F

Boring Information:
Boring No: L4
Well No: L4
Surf Elev.: 568.58

Depth Information:
Total: 21.0'
Auger: 21.0'
Core: -

Dates:
Start: 05/02/2024
Finish: 05/02/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	568.6
0							Gray ASH (fill)	
	1							565.0
5	2							
	3							560.0
10	4							
	5							555.0
15								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: L4 Boring No: L4 Well No: L4

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	6		1.4/2	1 1 4 6	1.0		Gray ASH (fill)	
							Brown silty CLAY; gray mottling; moist	
	7		1.5/2					550.0
20	8		1.5/2	6 8 10 12	4.75			
							End of Boring = 21 Feet	
								545.0
25								
								540.0
30								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP Ash Pond
Location: Springfield, Illinois
County: Sangamon
Site No.:
AEI No.: 240227

Location:
Coord. System:
Northing: 1128308.56
Easting: 2456118.23

Weather: Cloudy 61 F

Boring Information:
Boring No: L5
Well No: L5
Surf Elev.: 565.19

Depth Information:
Total: 39.5'
Auger: 39.5'
Core: -

Dates:
Start: 05/03/2024
Finish: 05/03/2024

Drilling Contractor:
Contractor Name: Skinner Limited
City: Hindsboro, Illinois
Equipment: 4 1/4" HSA 5' CSD 3"

Personnel:
Geologist: S. Van Hook
Driller: T. Skinner
Helper(s): NA

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	565.2
0	1						Gray silty CLAY (fill)	
5	2		1.5/2				Light gray LIME SLUDGE (fill)	560.0
	3							
10	4		2.0/2				Dark gray to black COAL ASH (fill)	555.0
	5							
15								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: L5 Boring No: L5 Well No: L5

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	6		2.0/2				16.0' Free water	
	7							
20	8		2.0/2					545.0
	9							
25	10		2.0/2					540.0
	11		3.0/3					
30								

Notes:

Andrews Engineering, Inc.
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Springfield, IL 62711

FIELD BORING LOG

Boring Information: L5 Boring No: L5 Well No: L5

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	12		3.0/3					
	13		2.0/2				Light gray LIME SLUDGE (fill); Sample CA 32.5-35.2'	
35	14		3.0/3		1.0		Brown silty CLAY; greenish gray mottling	530.0
	15		2.0/2					
40							End of Boring = 39.5 Feet	525.0
45								

Notes:

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/13/2024
Finish: 8/13/2024
WEATHER: 80F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: DB-01
Well ID: n/a
Surface Elev: 563.8 ft. MSL
Completion: 39.0 ft. BGS
Station: 1,129,829.03N
2,455,470.48E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 18.00 - During Drilling
▼ =
▼ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
1	12/18 67%	SPT	1-1 1 N=2	32.0			2			562	
2	14/18 78%	SPT	1-WH WH	37.0			4	Ash, (Silt like), Very Soft, Dark Gray (10Y 3/1), Moist		560	
3	18/18 100%	SPT	2-4 4 N=8	36.0			6			558	
4	12/18 67%	SPT	8-11 10 N=21	25.0			8			556	
5	12/18 67%	SPT	3-6 6 N=12	27.0			10			554	
6	12/18 67%	SPT	4-4 4 N=8	37.0			12	Ash, (Silt like), Medium Stiff, Dark Gray (10Y 3/1), Moist, 1 inch wet seam at 12.4		552	
7	18/18 100%	SPT	WR-WR WR	45.0			14			550	
				52.0			16	Ash, Med Grained, Loose, Black (10G 2.5/1), Moist		548	
							▼ 18	Ash, (Silt like), Very Soft, Dark Gray (10Y 3/1), Wet		546	
							20			544	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/13/2024
Finish: 8/13/2024
WEATHER: 80F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: DB-01
Well ID: n/a
Surface Elev: 563.8 ft. MSL
Completion: 39.0 ft. BGS
Station: 1,129,829.03N
2,455,470.48E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 18.00 - During Drilling
▼ =
▼ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
8	18/18 100%	SPT	WR-WR 1								
9	14/18 78%	SPT	WR-WR WH	49.0			22			542	
10	16/18 89%	SPT	WH-WH WH	85.0			24			540	
11	18/18 100%	SPT	WH-WH WH	56.0			26			538	
12	18/18 100%	SPT	WH-WH WH	39.0			28	Ash, (Silt like), Very Soft, Dark Gray (10Y 3/1), Wet *[Continued from previous page]*		536	
13	18/18 100%	SPT	WR-WR WR	40.0			30			534	
14	18/18 100%	SPT	WH-WH 1	35.0			32			532	
15	16/18 89%	SPT	WR-WR WR	41.0			34			530	
16	14/18 78%	SPT	7-8 11 N=19	22.0			36			528	
							38	Clay, Silty, Med Stiff, Moist, Dark Greenish Gray (5G 4/1)		526	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/13/2024
Finish: 8/13/2024
WEATHER: 80F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: DB-02
Well ID: n/a
Surface Elev: 556.9 ft. MSL
Completion: 35.5 ft. BGS
Station: 1,130,338.40N
2,456,218.17E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 10.00 - During Drilling
▼ =
▼ =

SAMPLE Number	Recov / Total (in) *% Recovery*	Type	TESTING *Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
1	4/18 *22%*	SPT	*2-3* *2* N=5	33.0			2	Ash, (Silt like), Soft-Very Soft, Greenish Black (5G 2.5/1), Moist		556	
2	6/18 *33%*	SPT	*1-1* *1* N=2	20.0			4			554	
3	14/18 *78%*	SPT	*WH-WH* *WH*	53.0			6			552	
4	18/18 *100%*	SPT	*WH-WH* *WH*	53.0			8	Ash, (Silt like), Very Soft, Dark Gray (10Y 3/1), Moist		550	
5	18/18 *100%*	SPT	*WH-WH* *WH*	37.0			▼ 10			548	
6	18/18 *100%*	SPT	*WR-WR* *WR*	31.0			12	Ash, (Silt like), Very Soft, Dark Gray (10Y 3/1), Wet		546	
7	18/18 *100%*	SPT	*WR-WR* *WR*	52.0			14			544	
				48.0			16			542	
							18			540	
							20	Ash, (Silt like), Very Soft, Bluish Black (5B 2.5/1), Wet		538	

NOTE(S):

FIELD BORING LOG

HANSON

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/13/2024
Finish: 8/13/2024
WEATHER: 80F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: DB-02
Well ID: n/a
Surface Elev: 556.9 ft. MSL
Completion: 35.5 ft. BGS
Station: 1,130,338.40N
2,456,218.17E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 10.00 - During Drilling
▼ =
▼ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
8	18/18 100%	SPT	WR-WR WR								
				49.0			22			536	
9	18/18 100%	SPT	WH-WH WH								
				50.0			24			534	
10	18/18 100%	SPT	WH-WH WH								
				53.0			26			532	
11	18/18 100%	SPT	WR-WR WR					Ash, (Silt like), Very Soft, Bluish Black (5B 2.5/1), Wet *[Continued from previous page]*			
				60.0			28			530	
12	18/18 100%	SPT	WR-WR WR								
				46.0			30			528	
13	14/18 78%	SPT	WR-WR WR								
				35.0			32			526	
14	18/18 100%	SPT	WR-WR 2								
				27.0			34			524	
15	18/18 100%	SPT	3-4 5 N=9					Clay, Silty, Soft, Light Greenish Gray (5G 7/1) w/ brown mottling, High Plasticity, Moist		522	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/14/2024
Finish: 8/14/2024
WEATHER: 80F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: DB-03
Well ID: n/a
Surface Elev: 554.7 ft. MSL
Completion: 31.0 ft. BGS
Station: 1,129,517.42N
2,455,963.38E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

SAMPLE			TESTING						
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Remarks
1	4/18 *22%*	SPT	*1-WH WH*	13.0			0		
2	18/18 *100%*	SPT	*1-1 1* N=2	26.0			2	Ash (Sand Like), Med Grained, Poorly Graded, Light Greenish Gray (5G 7/1), Moist	
3	14/18 *78%*	SPT	*WH-WH 1*	34.0			4		
4	16/18 *89%*	SPT	*WH-1 2* N=3	48.0			6		
5	18/18 *100%*	SPT	*WH-WH WH*	52.0			8		
6	18/18 *100%*	SPT	*WH-WH WH*	51.0			10		
7	18/18 *100%*	SPT	*WH-WH WH*	50.0			12	Ash (Silt Like), Very Soft, Greenish Black (10GY 2.5/1), Wet, Trace Coarse Grains	
				47.0			14		
							16		
							18		
							20	Ash (Sand Like), Fine Grained w/ trace coarse, Very Loose, Light Greenish Gray (5G 7/1), Wet	

Borehole Detail

Elevation ft. MSL: 554, 552, 550, 548, 546, 544, 542, 540, 538, 536

NOTE(S):

FIELD BORING LOG

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/14/2024
Finish: 8/14/2024
WEATHER: 80F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: DB-03
Well ID: n/a
Surface Elev: 554.7 ft. MSL
Completion: 31.0 ft. BGS
Station: 1,129,517.42N
2,455,963.38E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
8	18/18 100%	SPT	WH-WH WH					Ash (Sand Like), Fine Grained w/ trace coarse, Very Loose, Light Greenish Gray (5G 7/1), Wet *[Continued from previous page]*			
							22			534	
9	18/18 100%	SPT	WR-WR WR	56.0							
							24			532	
10	18/18 100%	SPT	WR-WR WR	49.0							
							26	Ash (Silt Like), Very Soft, Greenish Black (10GY 2.5/1), No Plasticity, Wet		530	
11	18/18 100%	SPT	WR-WR WR	41.0							
							28			528	
12	18/18 100%	SPT	WH-2 2 N=4	24.0							
							30	Clay, Silty, Soft, High Plasticity, Moist, Light Reddish Brown (2.5YR 6/4) w/ Gray Mottling		526	
										524	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/19/2024
Finish: 8/19/2024
WEATHER: 80F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: DB-04
Well ID: DB04D
Surface Elev: 553.71 ft. MSL
Completion: 31.00 ft. BGS
Station: 1,129,163.19N
2,455,379.61E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

SAMPLE			TESTING							
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
1	12/18 *67%*	SPT	*14-24* *36* N=60	14.0			2			552	
							4	Ash (Sand Like), Medium Grained, Poorly Graded, Greenish Black (10GY 2.5/1), Medium Dense, Moist		550	
2	12/18 *67%*	SPT	*10-15* *14* N=29	12.0			6			548	
3	14/18 *78%*	SPT	*4-7* *4* N=11	30.0			8			546	
								Ash (Sand Like), Medium Grained, Poorly Graded, Greenish Black (10GY 2.5/1), Loose, Wet			
4	18/18 *100%*	SPT	*1-1* *1* N=2	59.0			10			544	
								Ash (Silt Like) w/ trace sand, Very Soft, Greenish Black (10GY 2.5/1), Wet			
5	4/18 *22%*	SPT	*1-1* *2* N=3	36.0			12			542	
								Ash (Sand Like), Medium Grained, Poorly Graded, Greenish Black (10GY 2.5/1), Loose, Wet			
6	10/18 *56%*	SPT	*4-5* *6* N=11	50.0			14			540	
							16			538	
7	18/18 *100%*	SPT	*3-4* *5* N=9	49.0				Ash (Silt Like) w/ trace sand, Very Soft, Light Greenish Gray (5G 7/1), Wet			
							18			536	
				48.0				Ash (Silt Like), Very Soft, Greenish Black (10GY 2.5/1), Wet			
							20			534	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/19/2024
Finish: 8/19/2024
WEATHER: 80F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: DB-04
Well ID: DB04D
Surface Elev: 553.71 ft. MSL
Completion: 31.00 ft. BGS
Station: 1,129,163.19N
2,455,379.61E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

SAMPLE			TESTING						
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Remarks
8	14/18 *78%*	SPT	*WH-WH WH*					Sandy @ 27	
9	18/18 *100%*	SPT	*WH-WH WH*	41.0			22		
10	18/18 *100%*	SPT	*WH-WH WH*	37.0			24	Ash (Silt Like), Very Soft, Greenish Black (10GY 2.5/1), Wet Sandy @ 27 *[Continued from previous page]*	
11	18/18 *100%*	SPT	*1-1 1* N=2	44.0			26		
12	18/18 *100%*	SPT	*2-4 5* N=9	26.0			28		
							30	Clay, Silty, Medium Stiff, Moist, Light Reddish Brown (2.5YR 6/4) w/ Gray Mottling	

Borehole Detail

Elevation ft. MSL: 532, 530, 528, 526, 524

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/15/2024
Finish: 8/15/2024
WEATHER: 85F and Rainy

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: DB-05
Well ID: DB05D
Surface Elev: 553.24 ft. MSL
Completion: 28.50 ft. BGS
Station: 1,129,181.97N
2,456,241.37E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

SAMPLE			TESTING							
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
1	18/18 *100%*	SPT	*WH-WH WH*	34.0			2	ASH (Silt Like) w/ trace fine sand, Very Soft, Greenish Black (10GY 2.5/1), Moist		552	
2	18/18 *100%*	SPT	*WH-WH WH*	41.0			4			550	
3	18/18 *100%*	SPT	*WH-WH WH*	44.0			6			548	
4	18/18 *100%*	SPT	*WH-WH WH*	47.0			8	ASH (Silt Like) w/ trace sand, Very Soft, Greenish Black (10GY 2.5/1), Wet		546	
5	18/18 *100%*	SPT	*WH-WH WH*	53.0			10			544	
6	18/18 *100%*	SPT	*WH-WH WH*	52.0			12			542	
7	18/18 *100%*	SPT	*WH-WH WH*	47.0			14			540	
				41.0			16	ASH (Silt Like), Very Soft, Dark Greenish Gray (5GY 4/1), Wet		538	
							18			536	
							20	ASH (Silt Like), Very Soft, Greenish Black (10GY 2.5/1), Wet		534	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/15/2024
Finish: 8/15/2024
WEATHER: 85F and Rainy

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: DB-05
Well ID: DB05D
Surface Elev: 553.24 ft. MSL
Completion: 28.50 ft. BGS
Station: 1,129,181.97N
2,456,241.37E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

SAMPLE			TESTING						
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Elevation ft. MSL
8	18/18 *100%*	SPT	*WH-WH WH*						
							22		532
9	18/18 *100%*	SPT	*WH-WH WH*	43.0				ASH (Silt Like), Very Soft, Greenish Black (10GY 2.5/1), Wet *[Continued from previous page]*	
							24		530
10	18/18 *100%*	SPT	*WH-WH WH*	55.0					
							26		528
11	18/18 *100%*	SPT	*WH-2 4* N=6	24.0					
							28	Clay, Silty, Medium Stiff, Moist, Light Reddish Brown (2.5YR 6/4) w/ Gray Mottling, High Plasticity	526

Borehole Detail

Remarks

NOTE(S):

FIELD BORING LOG

HANSON

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/20/2024
Finish: 8/20/2024
WEATHER: 75F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: LB-01
Well ID: n/a
Surface Elev: 568.9 ft. MSL
Completion: 35.5 ft. BGS
Station: 1,127,471.50N
2,456,543.15E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 19.50 - During Drilling
▼ =
▼ =

SAMPLE			TESTING								
Number	Recov / Total (in) / % Recovery	Type	Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
1	10/18 *56%*	SPT	*5-15* *20* N=35	24.0			2	Ash (Sand Like), Medium Coarse, Poorly Graded, Medium Dense, Greenish Black (10GY 2.5/1), Moist		568	
2	9/18 *50%*	SPT	*4-4* *4* N=8	30.0			4			566	
3	18/18 *100%*	SPT	*WH-WH* *WH*	70.0			6			564	
4	18/18 *100%*	SPT	*WH-WH* *1*	57.0			8	Lime Sludge (Silt Like), Soft, Light Greenish Gray (5G 7/1), No Plasticity, Moist		562	
5	18/18 *100%*	SPT	*WH-WH* *WH*	63.0			10			560	
6	18/18 *100%*	SPT	*2-4* *2* N=6	41.0			12	Ash (Silt Like), Very Soft, Greenish Black (10GY 2.5/1), Moist 13 - 2 inch sandy wet seam		558	
7	18/18 *100%*	SPT	*3-10* *15* N=25	38.0			14			556	
				36.0			16			554	
							18	Ash (Sand Like), Medium Coarse, Poorly Graded, Loose-Medium Dense, Greenish Black (10GY 2.5/1), Moist Wet @ 19.5		552	
							▼ 20			550	

NOTE(S):

FIELD BORING LOG

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/20/2024
Finish: 8/20/2024
WEATHER: 75F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: LB-01
Well ID: n/a
Surface Elev: 568.9 ft. MSL
Completion: 35.5 ft. BGS
Station: 1,127,471.50N
2,456,543.15E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 19.50 - During Drilling
▼ =
▼ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
8	18/18 100%	SPT	5-5 4 N=9				20	Ash (Sand Like), Medium Coarse, Poorly Graded, Loose-Medium Dense, Greenish Black (10GY 2.5/1), Moist Wet @ 19.5 *[Continued from previous page]*		548	
9	14/18 78%	SPT	2-3 2 N=5	105.6			22			546	
10	18/18 100%	SPT	2-3 4 N=7	96.0			24			544	
11	18/18 100%	SPT	WR-1 1 N=2	75.0			26			542	
12	18/18 100%	SPT	WH-1 1 N=2	86.0			28	Ash (Silt Like) w/ trace sand, Very Soft, Greenish Black (10GY 2.5/1), Wet		540	
13	18/18 100%	SPT	WR-WH 1	77.0			30			538	
14	18/18 100%	SPT	WR-WH 4	24.0			32			536	
15	12/18 67%	SPT	WH-3 4 N=7	26.0			34	Clay, Silty, Medium Stiff, Moist, Light Reddish Brown (2.5YR 6/4) w/ Gray Mottling		534	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/20/2024
Finish: 8/20/2024
WEATHER: 75F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: LB-02
Well ID: LB02D
Surface Elev: 568.06 ft. MSL
Completion: 35.00 ft. BGS
Station: 1,127,826.17N
2,456,727.26E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 15.00 - During Drilling
▼ =
▼ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
1	13/18 72%	SPT	9-16 16 N=32	16.0			2	Ash (Sand Like), Fine Grained w/ fines, Med Dense, Greenish Black (10GY 2.5/1), Moist		566	
2	9/18 50%	SPT	6-3 4 N=7	14.0			4			564	
							6	Ash (Silt Like) w/ trace sand, Soft, Light Greenish Gray (5G 7/1), Moist, High Plasticity		562	
3	8/18 44%	SPT	2-4 6 N=10	15.0			8			560	
								Lime Sludge (Silt Like), Med Stiff, Light Greenish Gray (5G 7/1) w/ Brown Mottling, Moist, No Plasticity			
4	9/18 50%	SPT	2-3 4 N=7	18.0			10			558	
5	2/18 11%	SPT	1-1 1 N=2	15.0			12			556	
							14	Ash (Sand Like), Fine Grained w/ fines,Loose, Greenish Black (10GY 2.5/1), Moist		554	
6	14/18 78%	SPT	3-4 5 N=9	21.0			▼	Wet at 15			
							16			552	
7	9/18 50%	SPT	WH-WH 1	82.0			18	Ash (Silt Like), w/ trace sand, Very Soft, Greenish Black (10GY 2.5/1), Wet		550	
				99.0			20				

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/20/2024
Finish: 8/20/2024
WEATHER: 75F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: LB-02
Well ID: LB02D
Surface Elev: 568.06 ft. MSL
Completion: 35.00 ft. BGS
Station: 1,127,826.17N
2,456,727.26E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 15.00 - During Drilling
▼ =
▼ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
8	11/18 61%	SPT	WH-WH WH								
9	18/18 100%	SPT	WH-WH WH	101.4			22			546	
10	18/18 100%	SPT	WH-WH 1	91.0			24			544	
11	18/18 100%	SPT	1-1 1 N=2	139.8			26	Ash (Silt Like), w/ trace sand, Very Soft, Greenish Black (10GY 2.5/1), Wet *[Continued from previous page]*		542	
12	6/18 33%	SPT	WR-WR WR	111.1			28			540	
13	18/18 100%	SPT	WR-WR 2	142.9			30			538	
14	9/18 50%	SPT	2-3 6 N=9	30.0			32			536	
							34	Clay, Silty, Medium Stiff, Moist, Light Reddish Brown (2.5YR 6/4) w/ Gray Mottling		534	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/19/2024
Finish: 8/19/2024
WEATHER: 80F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: LB-03
Well ID: n/a
Surface Elev: 562.9 ft. MSL
Completion: 33.5 ft. BGS
Station: 1,128,249.84N
2,456,722.48E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 14.00 - During Drilling
▼ =
▼ =

SAMPLE			TESTING							
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
1	12/18 *67%*	SPT	*1-1* *1* N=2	28.0			2	Ash (Sand Like), Medium Coarse, Poorly Graded, Very Loose, Greenish Black (10GY 2.5/1), Moist		562	
2	16/18 *89%*	SPT	*WH-WH* *WH*	79.0			4			560	
3	16/18 *89%*	SPT	*1-1* *1* N=2	50.0			6			558	
4	13/18 *72%*	SPT	*4-1* *1* N=2	76.0			8	Ash (Silt Like) w/ Sand, Very Soft, Greenish Black (10GY 2.5/1), Moist 12.5-13 Med Coarse Sand - Wet		556	
5	18/18 *100%*	SPT	*1-1* *1* N=2	74.0			10			554	
6	18/18 *100%*	SPT	*WH-WH* *WH*	80.0			12			552	
7	18/18 *100%*	SPT	*1-1* *1* N=2	73.0			▼ 14	Ash (Silt Like), Layered Fine and Coarse Materials, Very Soft, Greenish Black (10GY 2.5/1), Wet		550	
				74.0			16			548	
							18	Lime Sludge, Very Soft, Light Greenish Gray (5G 7/1), Wet		546	
							20	Ash (Sand Like), Very Loose, Fine-Medium Grained, Greenish Black (10GY 2.5/1), Wet		544	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/19/2024
Finish: 8/19/2024
WEATHER: 80F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: LB-03
Well ID: n/a
Surface Elev: 562.9 ft. MSL
Completion: 33.5 ft. BGS
Station: 1,128,249.84N
2,456,722.48E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 14.00 - During Drilling
▼ =
▼ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
8	17/18 94%	SPT	1-1 1 N=2								
9	16/18 89%	SPT	WH-WH 1	84.0			22	Ash (Sand Like), Very Loose, Fine-Medium Grained, Greenish Black (10GY 2.5/1), Wet *[Continued from previous page]*		542	
10	18/18 100%	SPT	WH-WH WH	86.0			24			540	
11	18/18 100%	SPT	WH-WH WH	74.0			26			538	
12	18/18 100%	SPT	WR-WR WR	100.0			28	Ash (Silt Like) w/ trace sand, Very Soft, Greenish Black (10GY 2.5/1), Wet		536	
13	16/18 89%	SPT	3-3 5 N=8	26.0			30			534	
							32	Clay, Silty, Medium Stiff, Moist, Light Reddish Brown (2.5YR 6/4) w/ Gray Mottling		532	
										530	

NOTE(S):

FIELD BORING LOG

HANSON

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/21/2024
Finish: 8/21/2024
WEATHER: 75F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: LB-04
Well ID: n/a
Surface Elev: 566.3 ft. MSL
Completion: 22.0 ft. BGS
Station: 1,127,977.32N
2,457,073.44E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 9.50 - During Drilling
▼ =
▼ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
1	3/18 *17%*	SPT	*WH-1* *2* N=3	19.0			2	Clay, Silty, Soft, High Plasticity, Light Reddish Brown (2.5YR 6/4), Moist		566	
2	6/18 *33%*	SPT	*1-1* *1* N=2	18.0			4			564	
3	14/18 *78%*	SPT	*WH-WH* *WH*	177.9			6			562	
4	18/18 *100%*	SPT	*WR-WR* *WR*	72.0			8	Ash, (Silt Like), Very Soft, Greenish Black (10GY 2.5/1), Moist		560	
5	18/18 *100%*	SPT	*WR-WR* *WH*	43.0			▼ 10			558	
6	18/18 *100%*	SPT	*WH-WH* *WH*	61.0			12			556	
7	6/18 *33%*	SPT	*WR-WR* *WR*	68.0			14	Ash, (Silt Like), Very Soft, Greenish Black (10GY 2.5/1), Wet		554	
8	14/18 *78%*	SPT	*WR-WR* *WR*	87.0			16			552	
9	18/18	SPT	*WR-WR* *WR*	60.0			18	Lime Sludge, Very Soft, Light Greenish Gray (5G 7/1), Wet		550	
							20			548	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/21/2024
Finish: 8/21/2024
WEATHER: 75F and Sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: LB-04
Well ID: n/a
Surface Elev: 566.3 ft. MSL
Completion: 22.0 ft. BGS
Station: 1,127,977.32N
2,457,073.44E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 9.50 - During Drilling
▼ =
▼ =

SAMPLE			TESTING						
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
	100%			30.0				Lime Sludge, Very Soft, Light Greenish Gray (5G 7/1), Wet *[Continued from previous page]*		546	
10	18/18 *100%*	SPT	*WR-1* *2* N=3				22	Clay, Silty, Medium Stiff, Moist, Light Reddish Brown (2.5YR 6/4) w/ Gray Mottling			

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/16/2024
Finish: 8/16/2024
WEATHER: 85F and Overcast

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: LB-05
Well ID: n/a
Surface Elev: 565.4 ft. MSL
Completion: 37.5 ft. BGS
Station: 1,128,266.90N
2,456,131.15E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 12.00 - During Drilling
▼ =
▼ =

SAMPLE			TESTING							
Number	Recov / Total (in) / % Recovery	Type	Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
1	10/18 *56%*	SPT	*1-WH* *WH*				2	Ash (Sand Like), Medium Grained, Poorly Graded, Very Loose, Greenish Black (10GY 2.5/1), Moist		564	
2	18/18 *100%*	SPT	*WH-WH* *WH*				4			562	
3	14/18 *78%*	SPT	*WH-WH* *WH*	47.0			6			560	
4	11/18 *61%*	SPT	*WH-WH* *WH*	92.0			8	Lime Sludge (Silt Like), Very Soft, Light Greenish Gray (5G 7/1) w/ Brown Mottling, Moist, Medium Plasticity		558	
5	14/18 *78%*	SPT	*WH-WH* *WH*	74.0			10			556	
6	18/18 *100%*	SPT	*WH-WH* *WH*	62.0			▼ 12			554	
7	18/18 *100%*	SPT	*WH-WH* *WH*	74.0			14			552	
				74.0			16	Ash (Silt Like) w/ trace sand, Very Soft, Greenish Black (10GY 2.5/1), Wet, High Plasticity		550	
							18			548	
							20	Ash (Sand Like), Medium Grained, Poorly Graded, Very Loose, Greenish Black (10GY 2.5/1), Wet		546	

NOTE(S):

FIELD BORING LOG

HANSON

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 8/16/2024
Finish: 8/16/2024
WEATHER: 85F and Overcast

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-550 ATV Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: G. Tabacchi

BOREHOLE ID: LB-05
Well ID: n/a
Surface Elev: 565.4 ft. MSL
Completion: 37.5 ft. BGS
Station: 1,128,266.90N
2,456,131.15E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 12.00 - During Drilling
▼ =
▼ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
8	18/18 100%	SPT	WH-WH WH								
9	18/18 100%	SPT	WH-WH WH	70.0			22			544	
10	18/18 100%	SPT	WH-WH WH	73.0			24	Ash (Sand Like), Medium Grained, Poorly Graded, Very Loose, Greenish Black (10GY 2.5/1), Wet *[Continued from previous page]*		542	
11	18/18 100%	SPT	WH-WH WH	71.0			26			540	
12	18/18 100%	SPT	WR-WR WR	82.0			28	Ash (Silt Like) w/ trace sand, Very Soft, Greenish Black (10GY 2.5/1), Wet, High Plasticity		538	
13	18/18 100%	SPT	WR-WR WR	86.0			30			536	
14	18/18 100%	SPT	WH-WH WH	89.0			32	Ash (Sand Like), Medium Grained, Poorly Graded, Very Loose, Greenish Black (10GY 2.5/1), Wet		534	
15	16/18 89%	SPT	2-4 4 N=8	28.0			34			532	
							36	Ash (Silt Like) w/ trace sand, Very Soft, Greenish Black (10GY 2.5/1), Wet, High Plasticity		530	
								Clay, Silty, Medium Stiff, Moist, Light Reddish Brown (2.5YR 6/4) w/ Gray Mottling		528	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 6/19/2025
Finish: 6/20/2025
WEATHER: 85°F, sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: Bucket Auger Rig
Drilling Method: Bucket Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: R. Hasenyager

BOREHOLE ID: DO06
Well ID: DO06
Surface Elev: 552.77 ft. MSL
Completion: 30.30 ft. BGS
Station: 1,129,174.10N
2,456,191.27E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 2.00 - During Drilling
▼ = 4.76 - 6/23/25
▼ =

SAMPLE			TESTING						
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
							0	Very dark grayish brown (10YR3/2), wet, soft, SILT with trace very fine-grained sand. (Fly Ash)		552	
							2 ▼				
							4 ▼			550	
							6			548	
							8			546	
							10			544	
							12			542	
							14			540	
							16			538	
							18			536	
							20			534	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 6/19/2025
Finish: 6/20/2025
WEATHER: 85°F, sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: Bucket Auger Rig
Drilling Method: Bucket Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: R. Hasenyager

BOREHOLE ID: DO06
Well ID: DO06
Surface Elev: 552.77 ft. MSL
Completion: 30.30 ft. BGS
Station: 1,129,174.10N
2,456,191.27E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▽ = 2.00 - During Drilling
▽ = 4.76 - 6/23/25
▽ =

SAMPLE			TESTING						
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
							22			532	
							24	Very dark grayish brown (10YR3/2), wet, soft, SILT with trace very fine-grained sand. (Fly Ash) *[Continued from previous page]*		530	
							26			528	
							28			526	
							30	Dark gray (10YR4/1), moist, medium, SILT with some clay and trace sand.		524	

End of Boring = 30.3 feet

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 6/19/2025
Finish: 6/19/2025
WEATHER: 85°F, sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-850 Track Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: R. Hasenyager

BOREHOLE ID: DO07
Well ID: DO07
Surface Elev: 552.75 ft. MSL
Completion: 27.00 ft. BGS
Station: 1,129,197.21N
2,456,094.95E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 4.00 - During Drilling
▼ = 3.72 - 6/23/25
▼ =

SAMPLE Number	SAMPLE Recov / Total (in) % Recovery	SAMPLE Type	TESTING Blows / 6 in N - Value RQD	TESTING Water Content (%)	TESTING Dry Density (lb/ft³)	TESTING Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
	18/18 100%	SS	woh-1 1 N=2				0			552	
							2				
							4			550	
							6			548	
							8			546	
							10	Very dark grayish brown (10YR3/2), wet, soft, SILT with trace very fine-grained sand. (Fly Ash)		544	
	24/24 100%	SS	woh-woh woh-woh				12			542	
							14			540	
							16			538	
	20/24 83%	SS	woh-woh woh-woh				18			536	
							20			534	

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 6/19/2025
Finish: 6/19/2025
WEATHER: 85°F, sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-850 Track Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: R. Hasenyager

BOREHOLE ID: DO07
Well ID: DO07
Surface Elev: 552.75 ft. MSL
Completion: 27.00 ft. BGS
Station: 1,129,197.21N
2,456,094.95E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▽ = 4.00 - During Drilling
▽ = 3.72 - 6/23/25
▽ =

SAMPLE			TESTING							
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
	24/24 *100%*	SS	*woh-woh* *woh-woh*								
							22	Black (10YR2/1), wet, soft, SILT with trace very fine-grained sand. (Fly Ash)		532	
										530	
							24			528	
	24/24 *100%*	SS	*woh-woh* *3-4*					Black (10YR2/1), wet, loose, very coarse- to medium-grained SAND with little silt. (Bottom Ash)			
							26	Yellowish brown (10YR5/6), moist, medium, SILT with some clay and trace sand.		526	
								End of Boring = 27.0 feet			

NOTE(S):

FIELD BORING LOG

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 6/19/2025
Finish: 6/19/2025
WEATHER: 85°F, sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-850 Track Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: R. Hasenyager

BOREHOLE ID: DO08
Well ID: DO08
Surface Elev: 551.80 ft. MSL
Completion: 28.27 ft. BGS
Station: 1,129,401.38N
2,456,257.44E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 1.75 - During Drilling
▼ = 3.20 - 6/23/25
▼ =

SAMPLE Number	Recov / Total (in) *% Recovery*	Type	TESTING *Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
	17/24 *71%*	SS	*woh-woh woh-woh*				2 ▼ 4 ▼ 6 8	Very dark grayish brown (10YR3/2), wet, soft, SILT with trace very fine-grained sand. (Fly Ash)		550 548 546 544	
	24/24 *100%*	SS	*woh-woh woh-1*				10 12			542 540	
	24/24 *100%*	SS	*woh-woh woh-woh*				14 16 18 20	Black (10YR2/1), wet, soft, SILT with trace very fine-grained sand. (Fly Ash)		538 536 534 532	

NOTE(S):

FIELD BORING LOG

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 6/19/2025
Finish: 6/19/2025
WEATHER: 85°F, sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: CME-850 Track Drill
Drilling Method: Hollow Stem Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: R. Hasenyager

BOREHOLE ID: DO08
Well ID: DO08
Surface Elev: 551.80 ft. MSL
Completion: 28.27 ft. BGS
Station: 1,129,401.38N
2,456,257.44E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▽ = 1.75 - During Drilling
▽ = 3.20 - 6/23/25
▽ =

SAMPLE Number	Recov / Total (in) / % Recovery	Type	TESTING Blows / 6 in / N - Value / RQD	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
	24/24 100%	SS	woh-woh woh-woh				22			530	
							24	Black (10YR2/1), wet, soft, SILT with trace very fine-grained sand. (Fly Ash) *[Continued from previous page]*		528	
	24/24 100%	SS	woh-woh woh-woh				26			526	
	22/24 92%	SS	woh-1 2-3 N=3				28	Dark gray (10YR4/1), moist, medium, SILT with some clay and trace sand.		524	
								End of Boring = 28.27 feet			

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 6/19/2025
Finish: 6/20/2025
WEATHER: 85°F, sunny

CONTRACTOR: Skinner Limited
Rig mfg/model: Bucket Auger Rig
Drilling Method: Bucket Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: R. Hasenyager

BOREHOLE ID: DW01
Well ID: DW01
Surface Elev: 553.01 ft. MSL
Completion: 30.30 ft. BGS
Station: 1,129,174.10N
2,456,191.27E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▼ = 2.00 - During Drilling
▼ = 4.95 - 6/23/25
▼ =

SAMPLE			TESTING							
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
							0			553	
							2 ▼			552	
							4			550	
							4 ▼			548	
							6			546	
							8			544	
							10	Very dark grayish brown (10YR3/2), wet, soft, SILT with trace very fine-grained sand. (Fly Ash)		542	
							12			540	
							14			538	
							16			536	
							18			534	
							20				

NOTE(S):

FIELD BORING LOG

HANSON™

CLIENT: City Water, Light and Power
Site: CWLP Ash Pond Dewatering
Location: Springfield, IL
Project: 25E0006.00
DATES: **Start:** 6/19/2025
Finish: 6/20/2025
WEATHER: 85°F, sunny

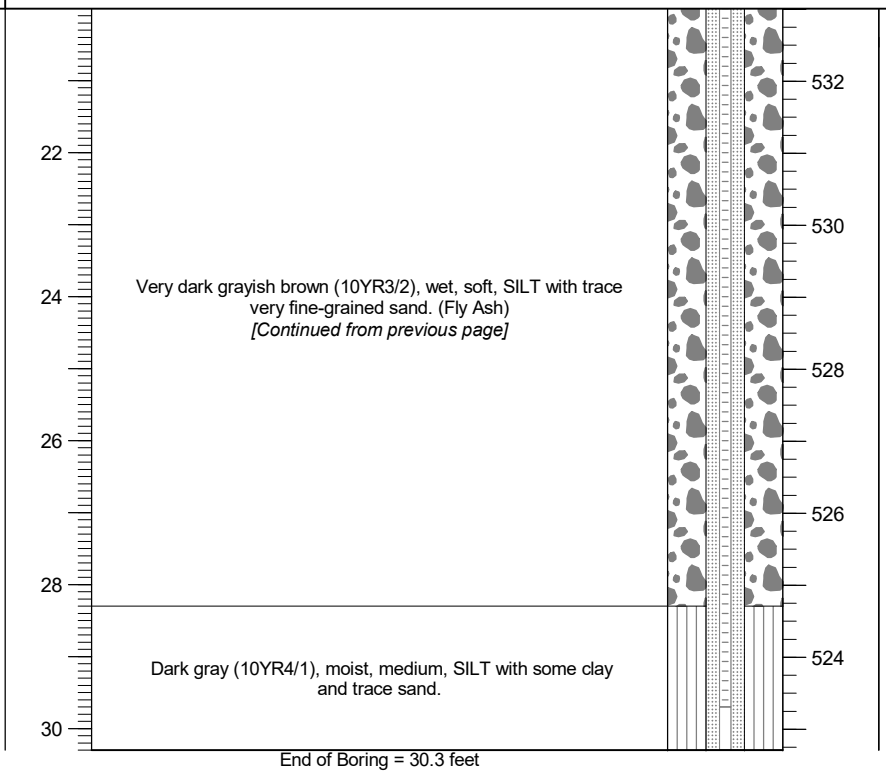
CONTRACTOR: Skinner Limited
Rig mfg/model: Bucket Auger Rig
Drilling Method: Bucket Auger
FIELD STAFF: **Driller:** T. Skinner
Helper: C. Vanburen
Eng/Geo: R. Hasenyager

BOREHOLE ID: DW01
Well ID: DW01
Surface Elev: 553.01 ft. MSL
Completion: 30.30 ft. BGS
Station: 1,129,174.10N
2,456,191.27E

TOPOGRAPHIC MAP INFORMATION:
Quadrangle: Springfield East
Township: Woodside
Section 12, **Tier** 15; **Range** 5

WATER LEVEL INFORMATION:
▽ = 2.00 - During Drilling
▽ = 4.95 - 6/23/25
▽ =

SAMPLE			TESTING						
Number	Recov / Total (in) *% Recovery*	Type	*Blows / 6 in* N - Value **RQD**	Water Content (%)	Dry Density (lb/ft³)	Qu (tsf) *Qp* (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail / Elevation ft. MSL / Remarks



End of Boring = 30.3 feet

NOTE(S):

APPENDIX A6:
FLOW PATH INVESTIGATION WELL LOGS

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Site Grid
Northing: 39.7704029
Easting: -89.59912433

Weather: Sunny, 80F

Boring Information:
Boring No: AP-6SA
Well No: AP-6S
Surf Elev.: 534

Depth Information:
Total: 14.0
Auger: 14.0
Core: 0.0

Dates:
Start: 5/13/2025
Finish: 5/13/2025

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA with 5' CB

Personnel:
Geologist: N. Beck
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	534.0
	1		4.1				Grey (5/1 10YR) silty CLAY, grading to olive (6/2 5GY) with yellow (7/8 10YR) mottles	530.0
5	2		4.2					
							Grey (5/1 10YR) clayey SAND, with olive (6/2 5GY) and some yellow (7/8 2.5Y) mottles	525.0
10	3		3.8				Dark grey (4/1 10YR) SAND, with clay, with black (2/1 10YR) mottles, organics	
							End of Boring = 14 Feet	520.0
15								
								515.0
20								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Latitude & Longitude
Northing: 39.76959656
Easting: -89.60064954

Weather: Sunny, 80F

Boring Information:
Boring No: AP-8SA
Well No: AP-8S
Surf Elev.: 535.9

Depth Information:
Total: 15.0
Auger: 15.0
Core: 0.0

Dates:
Start: 5/14/2025
Finish: 5/14/2025

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA with 5' CB

Personnel:
Geologist: B. Hunsberger
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	535.9
0							Dark grey (4/1 10YR) silty CLAY, with some fine sand and organics	
							Dark grey (4/1 10YR) silty CLAY, trace fine sand, moist	535.0
	1		5'				Brown (4/3 10YR) silty CLAY, little fine sand, moist	
5							Grey (5/1 10YR) clayey SILT to silty CLAY, little fine sand, very moist	530.0
	2		5'				with brown (5/3 10YR) laminatations, increased stiffness	
							Grey (5/1 10YR) clayey SILT to silty CLAY, little fine sand, very moist	
							Grey (5/1 10YR) sandy CLAY, soft	
10							Grey (5/1 10YR) clayey SILT to silty CLAY, little fine sand, very moist	
	3		5'				Grey (5/1 01YR) silty CLAY, little fine sand, moist, some brown bands, trace rootlets	525.0
							Grey (5/1 10YR) soft CLAY, with silt	
							Grey (5/1 01YR) silty CLAY, little fine sand, moist, some brown bands, trace rootlets	
15							Grey (5/1 10YR) soft CLAY, some silt	
							Grey (5/1 01YR) silty CLAY, little fine sand, moist, some brown bands, trace rootlets	520.0
							End of Boring = 15 Feet	
20								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Latitude & Longitude
Northing: 39.762762
Easting: -89.59991904

Weather: Sunny, 67F

Boring Information:
Boring No: AP-15D
Well No: AP-15D
Surf Elev.: 536.3

Depth Information:
Total: 30.5
Auger: 30.5
Core: 0.0

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA, 5' CB, 3' & 2' split spoon

Personnel:
Geologist: N. Beck
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

Dates:
Start: 5/12/2025
Finish: 5/12/2025

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	536.3
0							Brown (5/3 10YR) clayey SILT, with organics, spongy texture, very moist	
	1		3.92				Grey (5/1 10YR) silty CLAY, moist	535.0
5	2		4				Yellow (7/8 2.5Y) silty CLAY, with black (2/1 10YR) and olive (6/2 10Y) mottles, wet	530.0
10							Yellow (7/8 10YR) SAND, with trace clay, olive (6/2 10Y) and dark grey (4/1 10YR) mottles, wet	
	3		3.85				Yellow (7/8 2.5Y) clayey SAND, very fine to fine grain size	525.0
15	4		4				Yellow (7/8 2.5Y) SAND, coarse grain size, with some medium grains, saturated	520.0
20				1				

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: AP-15D Boring No: AP-15D Well No: AP-15D

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		2.3	1 3 4 4 4 4			color grades to grey (5/1 10YR)	515.0
	6		3	wg wg wg 1 1 2			Grey (5/1 10YR) clayey SAND, fine grain size, saturated	
25	7		4				Light grey (7/1 10YR) CLAY, wet, high plasticity, highly adhesive	510.0
							Grey (5/1 10YR) clayey SAND, medium grain size	
							Grey (6/1 10YR) clayey SAND, very fine grain size	
30	8		0.6	wg 60\2			Dark grey (4/1 10YR) SHALE, wet	
							End of Boring = 30.5 Feet	505.0
35								500.0
40								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Latitude & Longitude
Northing: 39.76277306
Easting: -89.59992106

Weather: Sunny, 67F

Boring Information:
Boring No: AP-15S
Well No: AP-15S
Surf Elev.: 533.6

Depth Information:
Total: 24.5
Auger: 24.5
Core: 0.0

Dates:
Start: 5/12/2025
Finish: 5/12/2025

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA, 5' CB, 3' & 2' Split spoon

Personnel:
Geologist: N. Beck
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	533.6
0	1		3.9				Dark (3/1 10YR) silty CLAY, with coal fragments and organics, moist	
							Dark grey (3/1 10YR) CLAY, moist	530.0
5	2		4.8				Yellow (7/8 2.5Y) sandy CLAY, with olive (6/2 10Y) and grey (5/1 10YR) mottles	
							Yellow (7/8 2.5 Y) clayey SAND, very moist, with olive (6/2 5GY) and grey (5/1 10YR) mottles	525.0
10	3		4.9				Yellow (7/8 2.5Y) CLAY, fine to medium grain size, wet	
							Yellow (7/8 2.5Y) clayey SAND, very moist, with olive (6/2 10Y)	520.0
15	4		2.9	wg wg 2 4 5 8			Yellowish brown (5/6 10YR) SAND, fine to medium grain size, trace clay, wet	
	5		1.5	wg 2 3 5				515.0
20				5				

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: AP-15S Boring No: AP-15S Well No: AP-15S

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
				5			Yellowish brown (5/6 10YR) clayey SAND, very fine grain size	
	6		2.3	6 8 8 7 5			Grey (6/1 10YR) SAND, medium to coarse grain size, wet	
							Grey (5/1 10YR) silty CLAY, moist, with sand	
	7		1.8	2 2 2 2			Light grey (7/1 10YR) CLAY, firm, wet	510.0
25							End of Boring = 24.5 Feet	
								505.0
30								
								500.0
35								
								495.0
40								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Latitude & Longitude
Northing: 39.77159212
Easting: -89.60008687

Weather: Sunny, 70F

Boring Information:
Boring No: AP-16
Well No: AP-16
Surf Elev.: 533.6

Depth Information:
Total: 23.0
Auger: 23.0
Core: 0.0

Dates:
Start: 5/20/2025
Finish: 5/20/2025

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA with 5' CB

Personnel:
Geologist: N. Beck
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	533.6
							Light brown (6/3 7.5YR) SILT, organics	
	1		4.8				Grey (4/1 10YR) silty CLAY, moist, trace yellow (7/8 2.5Y) mottles	
							Olive (6/4 10Y) CLAY, with some brownish yellow (6/8 10YR) mottles	530.0
5							color grades to (8/1 10YR) with olive (6/4 10Y) and brownish yellow (6/8 10YR) mottles, moist	
	2		4.4				color grades to white (8/1 10YR) clayey SILT, moist, yellowish brown (4/6 10YR) mottles	525.0
10							white (8/1 N) with brown (7/6 10YR) mottles, wet	
	3		5				White (8/1 10YR) silty CLAY, moist, with brown (6/8 10YR) mottles	
							Light olive (6/3 5Y) clayey SAND, wet	520.0
							Light bluish grey (7/1 10B) silty CLAY with yellow (7/6 10YR) mottles, moist	
15	4		1.8				Grey (5/1 10YR) SAND, well sorted, medium to coarse grain size, coarsening downward, trace gravel, with clay	515.0
20								

Notes:

Andrews Engineering, Inc.
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Springfield, IL 62711

FIELD BORING LOG

Boring Information: AP-16 Boring No: AP-16 Well No: AP-16

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Grey (5/1 10YR) clayey SAND, well sorted, coarse to medium grain size, trace gravel	
	5		3.3				Black (2/1 10YR), grading to olive (6/2 5GY) clayey SHALE	
							End of Boring = 23 Feet	510.0
25								505.0
30								500.0
35								495.0
40								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Latitude & Longitude
Northing: 39.77042692
Easting: -89.59572184

Weather: Sunny, 73F

Boring Information:
Boring No: P03D
Well No: P03D
Surf Elev.: 530

Depth Information:
Total: 35.0
Auger: 35.0
Core: 0.0

Dates:
Start: 5/14/2025
Finish: 5/14/2025

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA with 5' CB

Personnel:
Geologist: N. Beck
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	530.0
0	1		4.8				Black (2/1 10YR) SILT, with organics	
							Light grey (7/1 10YR) clayey SILT, with shale and coal fragments	
5	2		4.7				Grey (4/1 10YR) clayey SILT with shale and coal fragments	525.0
							Olive (6/2 5GY) clayey SILT trace coal fragments	
10	3		4.3				Dark grey (3/1 10YR) silty SAND, with trace organics, wet, medium to coarse grain size	520.0
15	4		5				Light grey (7/1 10YR) silty CLAY, with (6/8 10YR) brown mottles	515.0
							Olive (6/2 5GY) silty CLAY, with thin interbedded very fine grained sand, moist	
20								510.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: P03D Boring No: P03D Well No: P03D

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		4.4				Grey (5/1 10YR) CLAY, with olive (6/2 5GY) mottles, moist, with thin sand interbedded	
25								505.0
	6		4.6				Grey (6/1 10YR) CLAY, wet, highly plastic, very sticky	
							Grey (5/1 10YR) clayey SAND, medium grain size, moist	
30								500.0
	7		2.75				Grey (4/1 10YR) SAND, medium to coarse grain size, wet	
							Dark grey (3/1 10YR) SHALE	
35								495.0
							End of Boring = 35 Feet	
40								490.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Site Grid
Northing: 39.77042711
Easting: -89.59573599

Weather: Sunny, 67F

Boring Information:
Boring No: P03S
Well No: P03S
Surf Elev.: 529.9

Depth Information:
Total: 14.0
Auger: 14.0
Core: 0.0

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA with 5' CB

Personnel:
Geologist: N. Beck
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

Dates:
Start: 5/14/2025
Finish: 5/14/2025

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	529.9
	1		4.75				Dark brown (3/2 10YR) SILT, with organics, trace coal and shale	
							Light grey (7/1 10YR) clayey SILT, with brown mottles, trace gravel	
5								525.0
	2		4.6				Dark grey (3/1 10YR) clayey SILT, with coal and shale fragments	
							Olive (5/3 5Y) silty CLAY, with grey (5/1 10YR) mottles, trace coal	
10							Dark grey (3/1 10YR) silty SAND, wet, trace organics	520.0
	3		3.8				Dark grey (3/1 10YR) SAND, medium to coarse grain size, with silt, trace gravel	
							Olive (6/2 5GY) silty CLAY, moist, trace grey mottles	
							End of Boring = 14 Feet	
15								515.0
20								510.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Site Grid
Northing: 39.77040608
Easting: -89.59696106

Weather: Sunny, 80F

Boring Information:
Boring No: P104S
Well No: P104S
Surf Elev.: 529.7

Depth Information:
Total: 36.5
Auger: 36.5
Core: 0.0

Dates:
Start: 5/15/2025
Finish: 5/15/2025

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA with 5' CB and 2' Split Spoon

Personnel:
Geologist: N. Beck
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	529.7
0	1		4.4'				Brown (4/6 10YR) clayey SILT, with coal fragments, black and yellow mottles	
							grades to black	
							Grey (5/1 10YR) clayey SILT, with coal fragments, black and yellow mottles	
5								525.0
							Dark grey (3/1 10YR) SILT	
	2		4.8'				Grey (5/1 10YR) silty CLAY, trace sand	
							Dark grey (4/1 10YR) CLAY, moist, trace coal fragments	
10								520.0
	3		5'					
15								515.0
	4		4.9'				Dark grey (4/1 10YR) silty CLAY, moist, trace organics and sand	
20								510.0

Notes:

Andrews Engineering, Inc.
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Springfield, IL 62711

FIELD BORING LOG

Boring Information: G104S Boring No: G104S Well No: G104S

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		2.9'					
							Grey (5/1 10YR) SAND, with clay, wet, with little gravel	
	6		1.6'	wg wg 1			Grey (6/1 10YR) CLAY, moist	505.0
25							End of Boring = 25 Feet	
30								500.0
35								495.0
40								490.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Latitude & Longitude
Northing: 39.77031764
Easting: -89.59489383

Weather: Sunny, 78F

Boring Information:
Boring No: R103S
Well No: R103S
Surf Elev.: 535.1

Depth Information:
Total: 30.0
Auger: 30.0
Core: 0.0

Dates:
Start: 5/19/2025
Finish: 5/19/2025

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA with 5' CB

Personnel:
Geologist: N. Beck
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	535.1
0	1		4.5				White (8/1 10YR) SILT, with many brown (6/4 10YR) mottles, organics, with trace sand	
5							Olive (6/2 5GY) silty CLAY, with brown (6/4 10YR) mottles, and trace black (2/1 10YR) mottles	530.0
	2		Full				Light grey (7/1 10YR) grading to brown (5/4 10YR) CLAY, with silt, with (6/8 10YR) mottles, soft	
10								525.0
	3		Full				Light grey (7/1 10YR) clayey SILT, moist	
15							soft, wet	520.0
	4		4.4				Dark grey (4/1 10YR) sandy CLAY, wet, soft, trace, with brown (5/6 10YR)	
							Dark grey (4/1 10YR) SAND, wet, brown (5/7 10YR) mottles	
20								515.0

Notes:

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Springfield, IL 62711

FIELD BORING LOG

Boring Information: R103 Boring No: R103 Well No: R103

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		3.5				Grey (5/1 10YR) sandy CLAY, with trace gravel, coal, and shale	
25							Grey (5/1 10YR) clayey SAND, with gravel	510.0
	6		4.1				Grey (5/1 10YR) weathered SHALE, with yellow (8/4 5Y)	
							Dark grey (3/1 10YR) SHALE, with lighter grey (5/1 10YR) bands	
30							End of Boring = 30 Feet	505.0
35								500.0
40								495.0

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Latitude & Longitude
Northing: 39.77018579
Easting: -89.59899292

Weather: Sunny, 80F

Boring Information:
Boring No: RW-3S
Well No: RW-3S
Surf Elev.: 535.9

Depth Information:
Total: 15.0
Auger: 15.0
Core: 0.0

Dates:
Start: 5/15/2025
Finish: 5/15/2025

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA with 5' CB

Personnel:
Geologist: N. Beck
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	535.9
0	1		4.75				Grey (5/1 10YR) clayey SILT, with orgnics and gravel	535.0
							Greyish brown (5/2 10YR) silty CLAY, with reddish yellow (6/8 7.5YR) mottles and organics	
5	2		4.0				Greenish grey (8/1 5GY) SILT, with clay, brown (5/8 10YR) mottles, trace sand near bottom	530.0
10							Pale brown (6/3 10YR) SAND, wet	
							Greenish grey (8/1 5GY) SILT, with clay, brown (5/8 10YR) mottles, trace sand near bottom	525.0
	3		3.75				Pale brown (6/3 10YR)to grey (6/1 10YR) silty SAND, wet, with organics	
							Grey (6/1 10YR) clayey SAND, wet, with organics	
15							End of Boring = 15 Feet	520.0
20								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: Springfield City Water, Light, and Power
Location: Springfield, IL
County: Sangamon
Site No.: 1678250020
AEI No.: 240338|0011

Location:
Coord. System: Latitude & Longitude
Northing: 39.77037607
Easting: -89.60084024

Weather: Sunny, 70F

Boring Information:
Boring No: T4S
Well No: T4S
Surf Elev.: 546.8

Depth Information:
Total: 15.0
Auger: 15.0
Core: 0.0

Dates:
Start: 5/20/2025
Finish: 5/20/2025

Drilling Contractor:
Contractor Name: Skinner LTD
City: Hindsburo, IL
Equipment: 4.25" HSA with 5' CB

Personnel:
Geologist: N. Beck
Driller: T. Skinner
Helper(s): C. Vonbrehens, T. Buckler

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

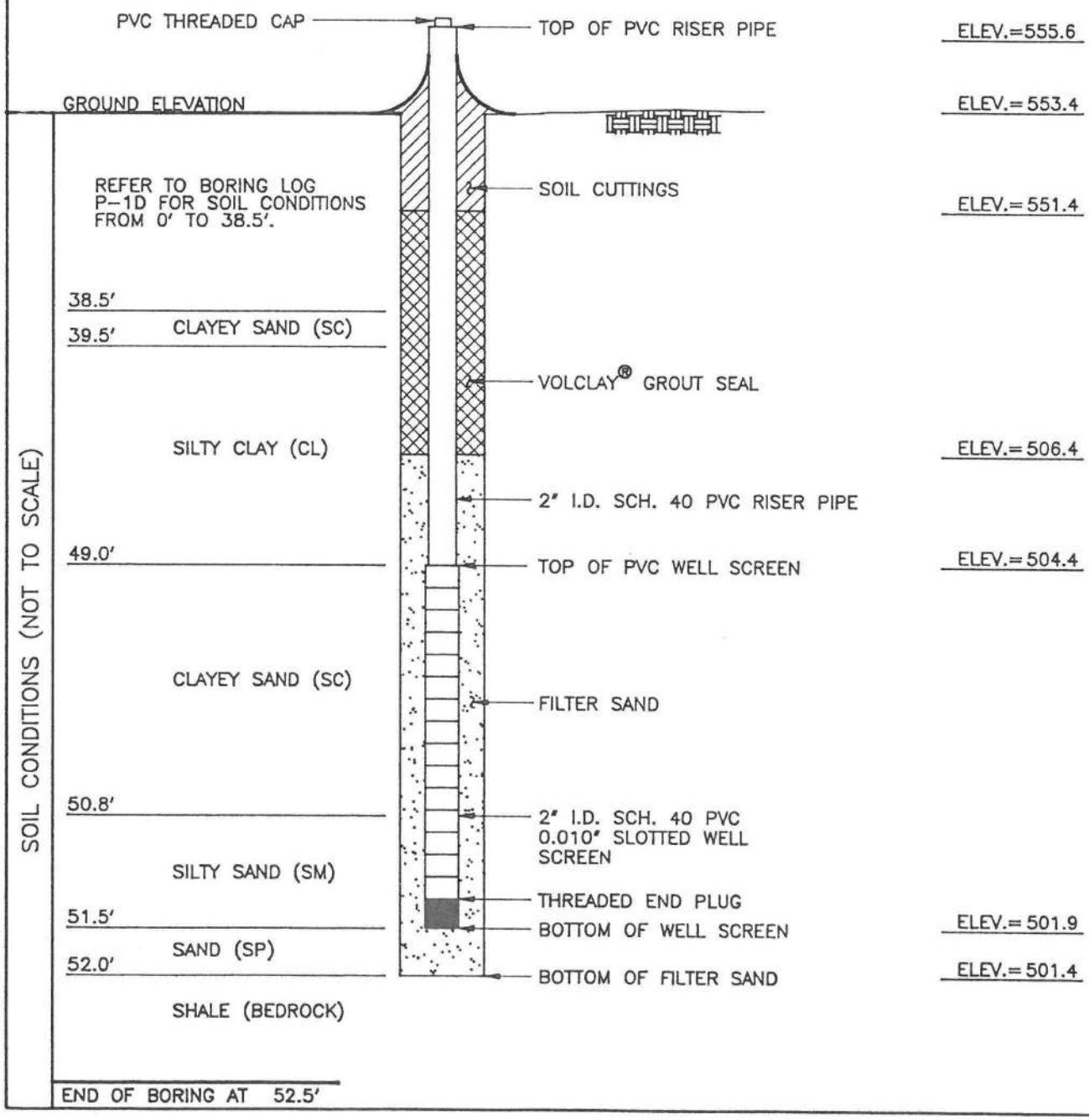
Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	546.8
0							Dark brown (3/3 10YR) clayey SILT, moist	
	1		4.75				Yellowish brown (5/8 10YR) silty CLAY, moist, with organics	545.0
5	2		1.9				Pale brown (8/4 10YR) SILT, with clay, organics, trace sand, dry	540.0
	3		3				hard	
10	4		1.5				Pale brown (8/4 10YR) sandy SILT, with black mottles	535.0
	5		0.5				Pale brown (7/3 10YR), sandy CLAY, with black mottles, organics, moist	
	6		2.3				Light grey (7/2 10YR) clayey SAND, moist, with black mottles, organics, and trace gravel	
15							End of Boring = 15 Feet	530.0
20								

Notes:

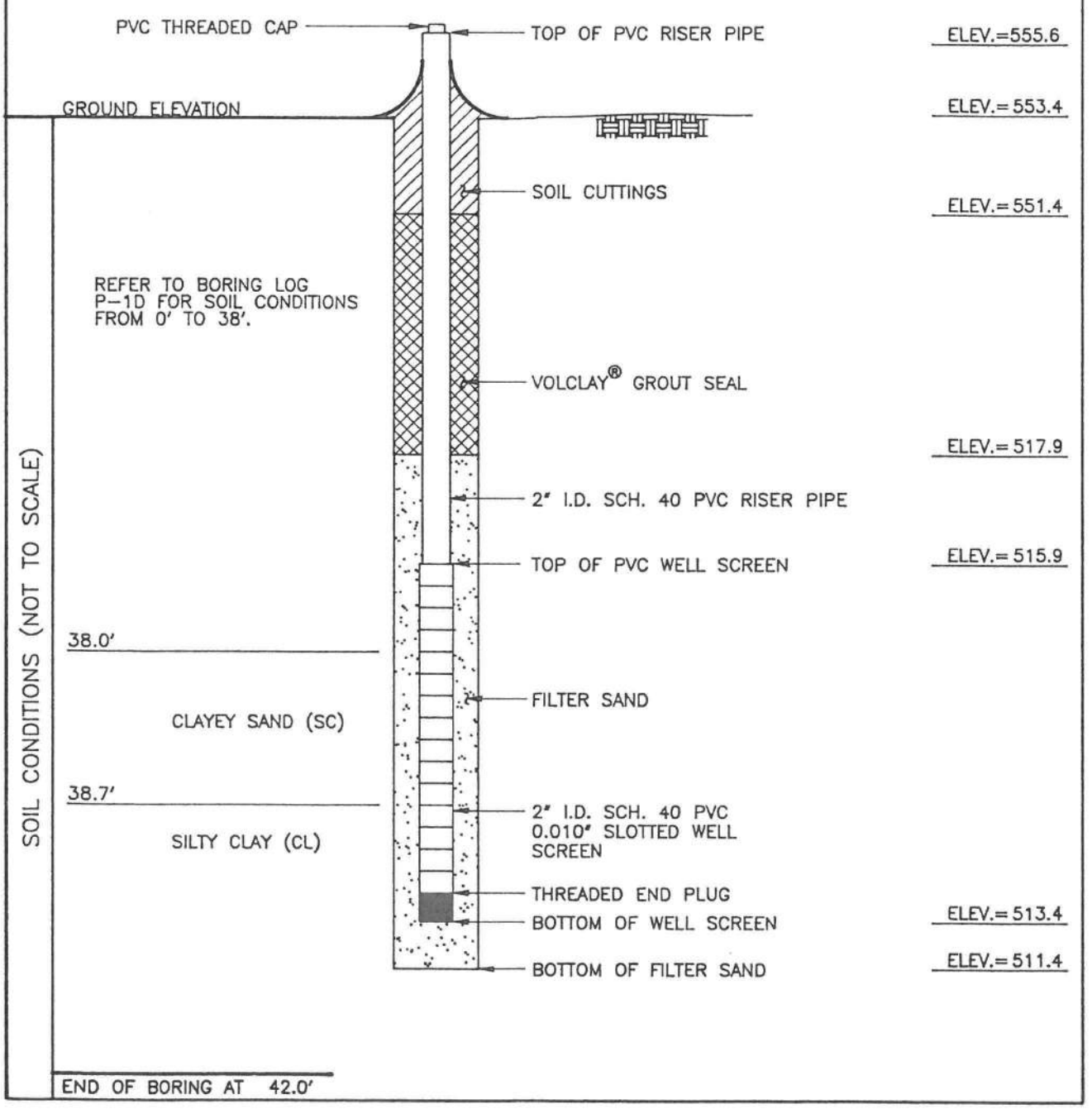
APPENDIX B:
WELL CONSTRUCTION REPORTS

APPENDIX B1:
FGDS UNIT 2 LANDFILL WELL/PIEZOMETER CONSTRUCTION REPORTS

PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-1D PROJ. NO. 496B
PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P ENGINEER KRISHNA REDDY DRILLER KEVIN SHAMWAY		BORING NO. P-1D LOCATION N 4806.1 E 1973.1 INSTALLATION DATE 7/21/92 WEATHER CLOUDY, 70'S



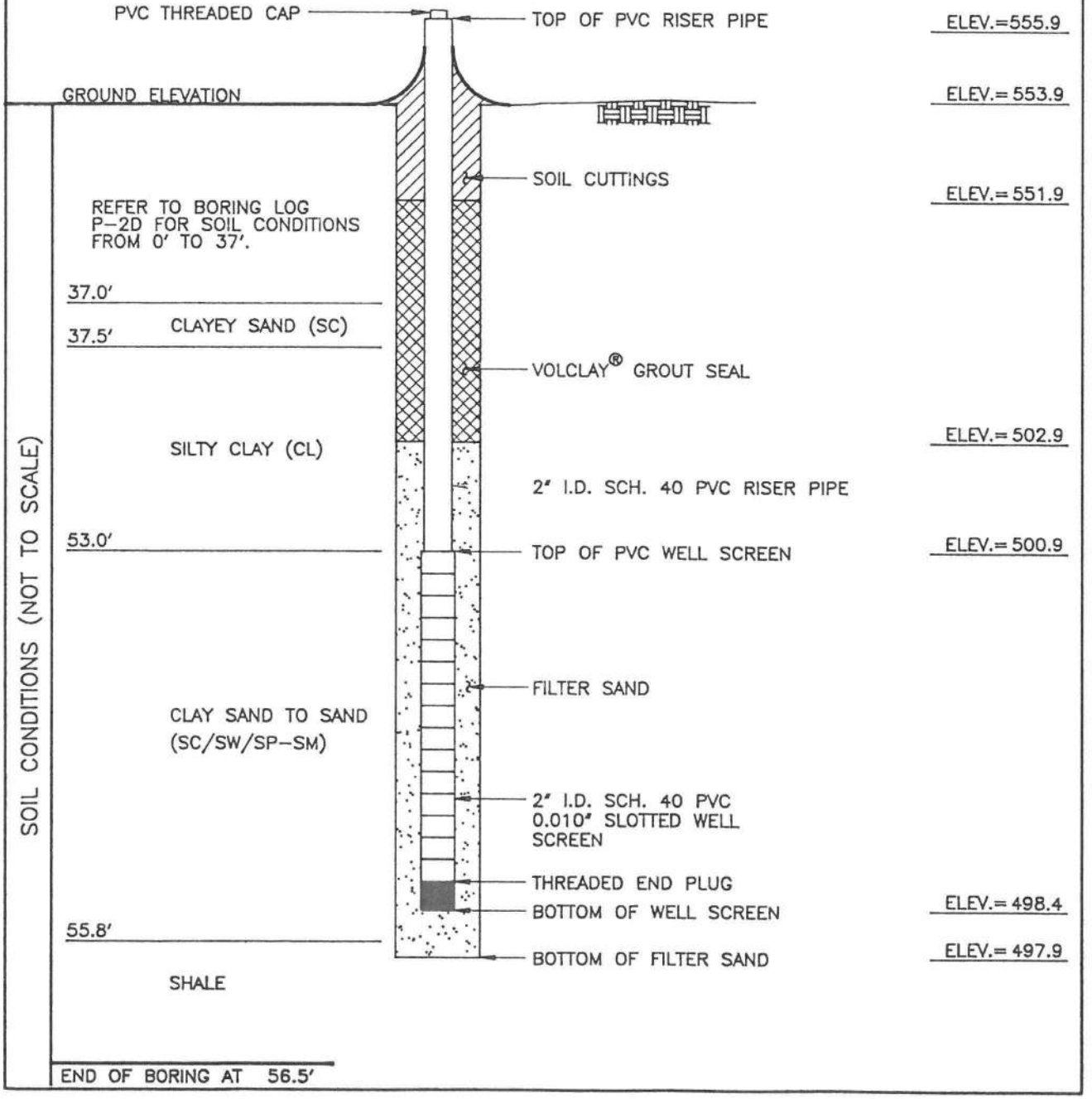
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PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P ENGINEER KRISHNA REDDY DRILLER KEVIN SHAMWAY		BORING NO. P-1S LOCATION N 4821.3 E 1973.9 INSTALLATION DATE 7/21/92 WEATHER P. CLOUDY, 70'S



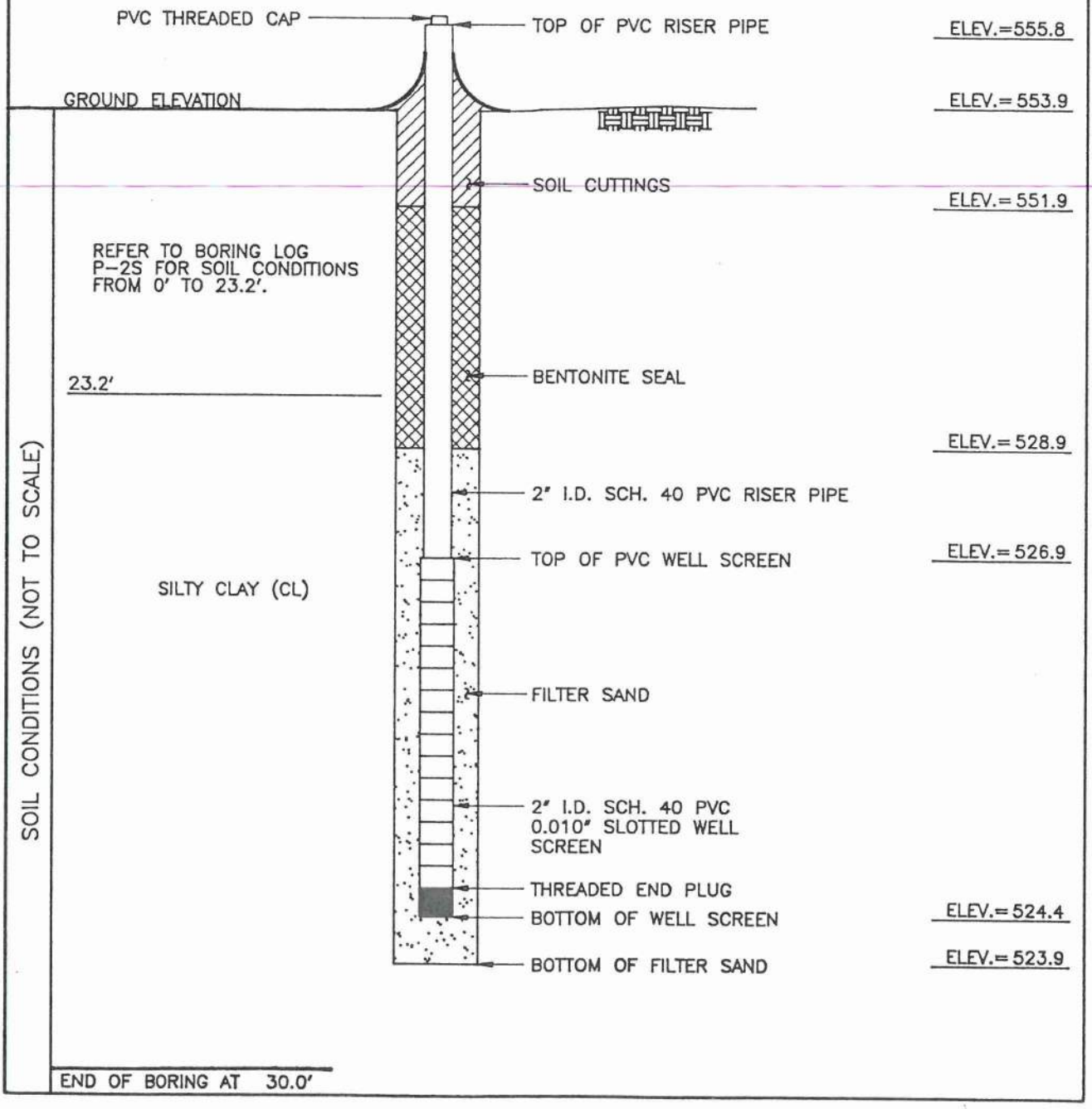
PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-2D PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER KRISHNA REDDY
DRILLER KEVIN SHAMWAY

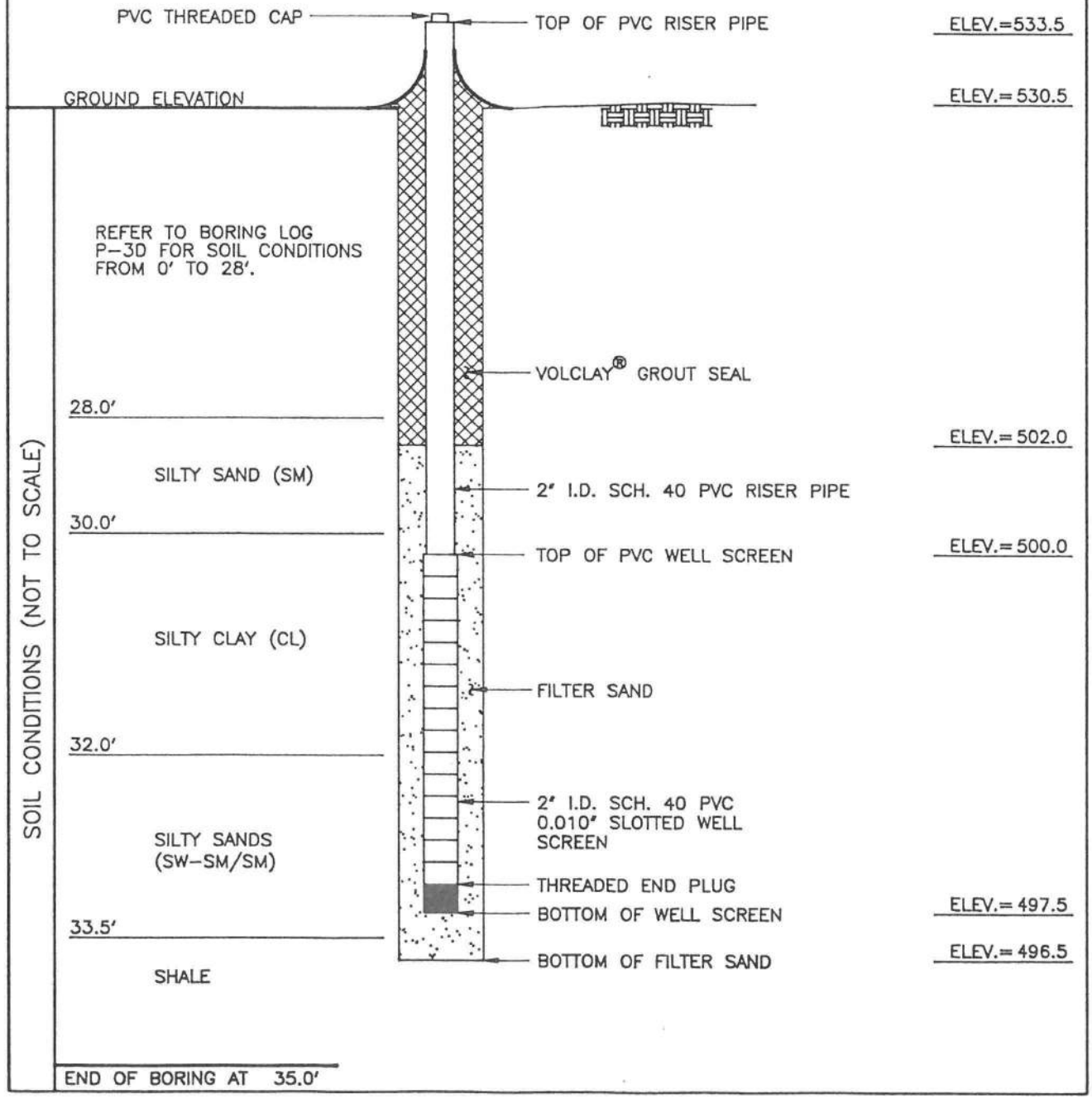
BORING NO. P-2D
LOCATION N 5526.0
E 1975.9
INSTALLATION DATE 7/22/92
WEATHER CLOUDY, RAINY, 70'S



PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-2S PROJ. NO. 496B
PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P ENGINEER KRISHNA REDDY DRILLER KEVIN SHAMWAY		BORING NO. P-2S LOCATION N 5237.1 E 1976.3 INSTALLATION DATE 7/22/92 WEATHER CLOUDY, RAINY, 70'S



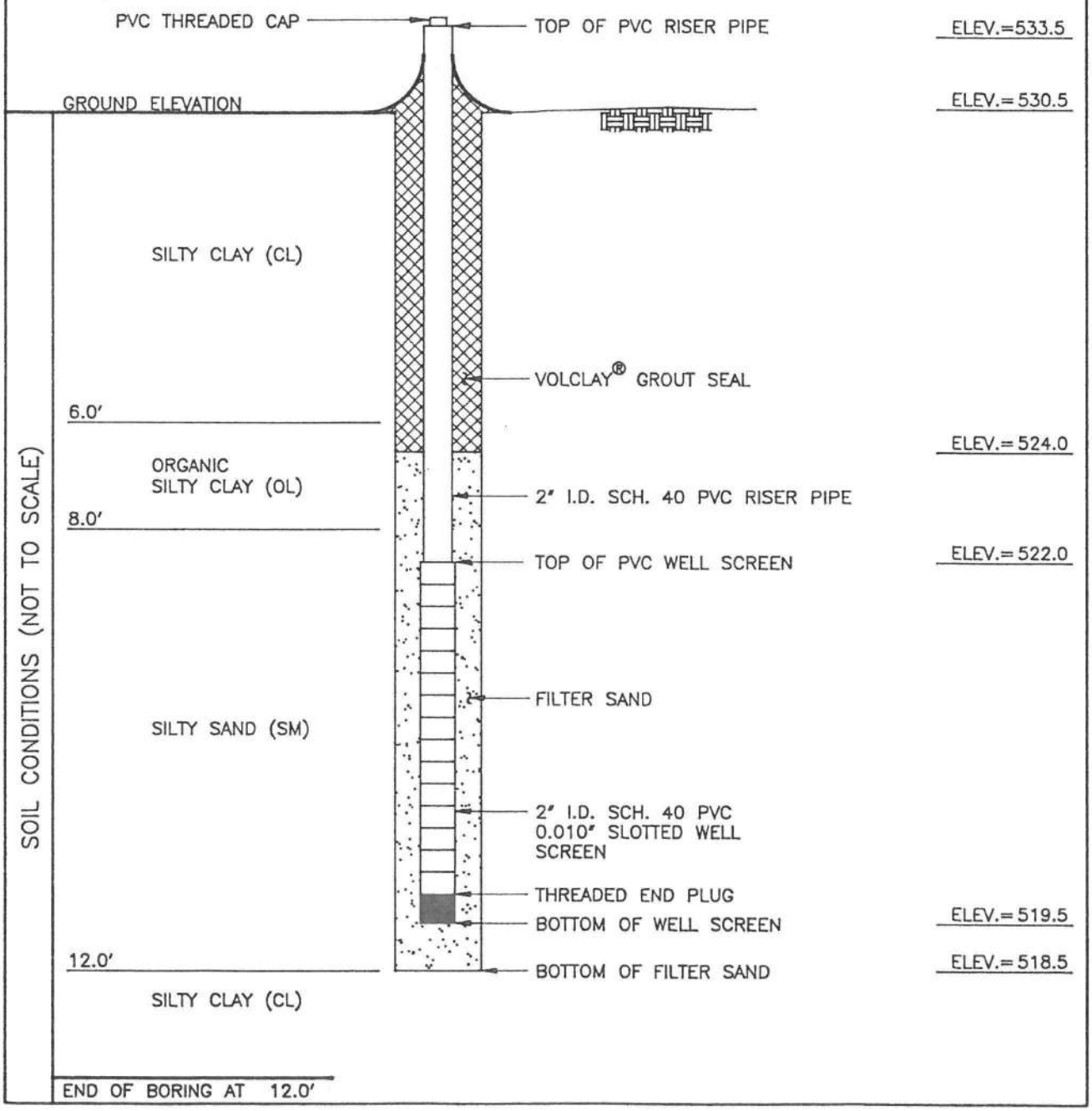
PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-3D PROJ. NO. 496B
PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P ENGINEER KRISHNA REDDY DRILLER KEVIN SHAMWAY		BORING NO. P-3D LOCATION N 5672.5 E 2645.4 INSTALLATION DATE 8/17/92 WEATHER SUNNY, 70'S



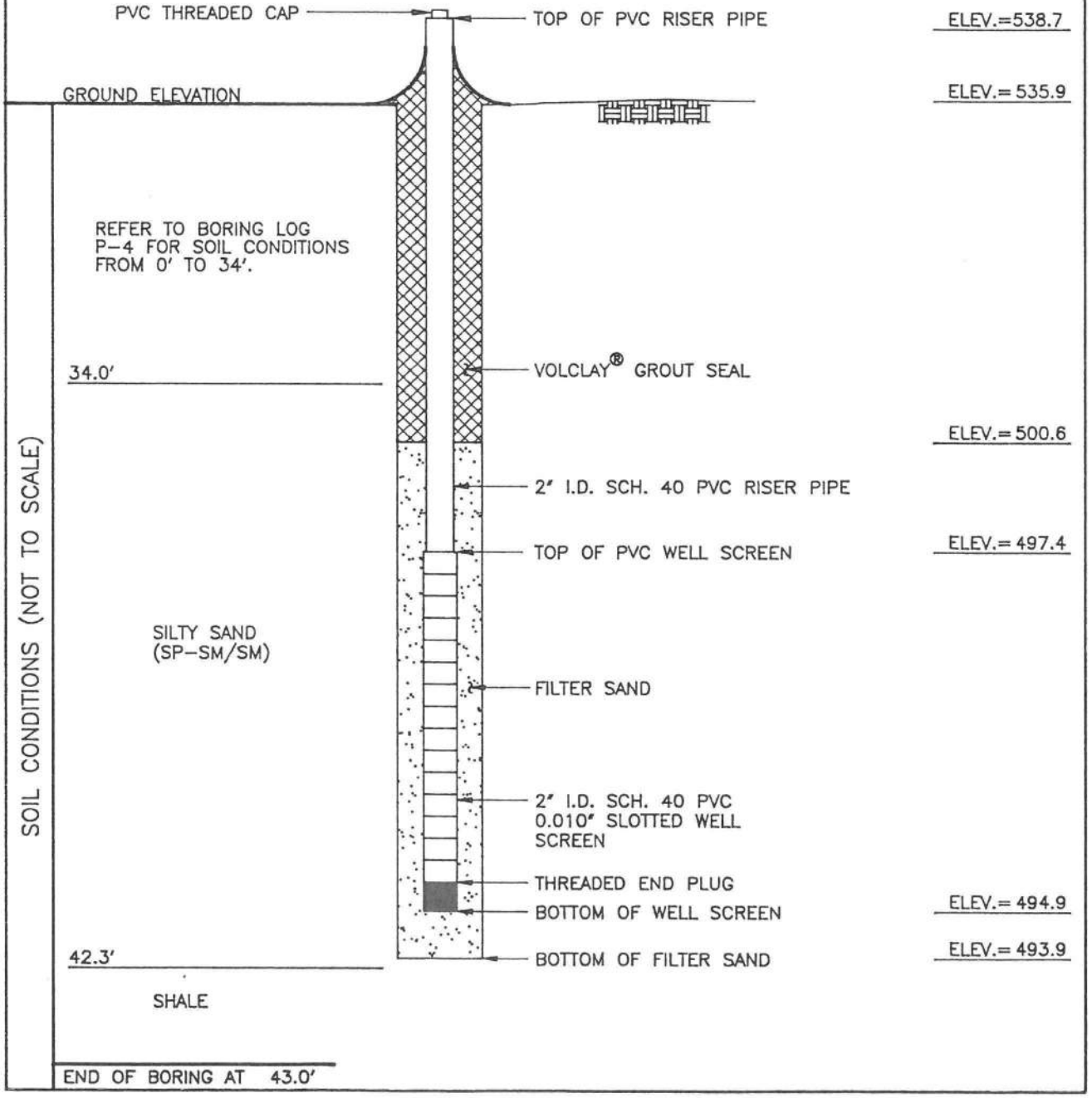
PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-3S PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER KRISHNA REDDY
DRILLER KEVIN SHAMWAY

BORING NO. P-3S
LOCATION N 5672.5
E 2651.4
INSTALLATION DATE 8/17/92
WEATHER SUNNY, 70'S



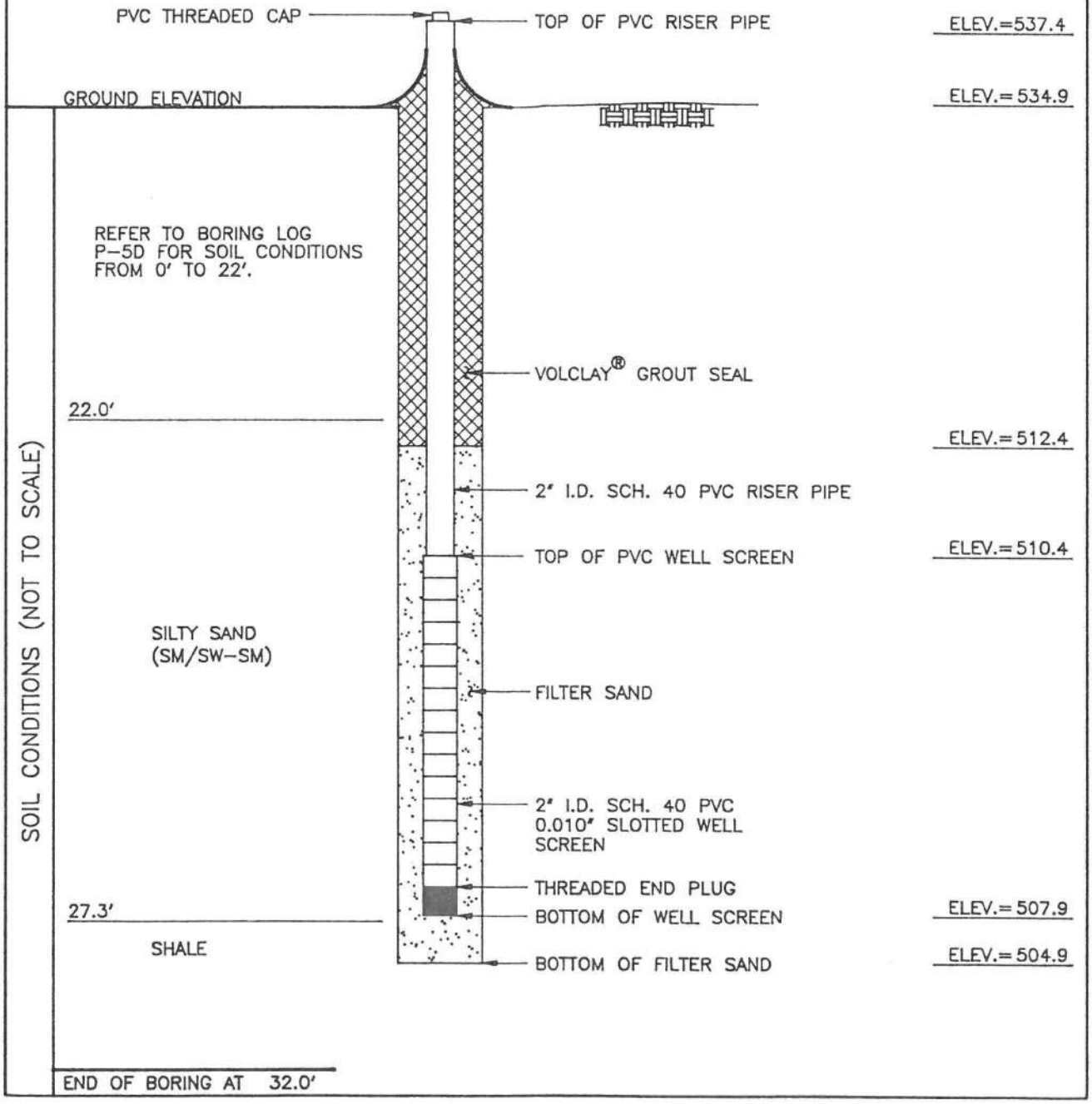
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PROJECT FGDS LANDFILL		BORING NO. P-4
LOCATION SPRINGFIELD, ILLINOIS		LOCATION N 5156.3
CLIENT CWL&P		E 2880.7
ENGINEER KRISHNA REDDY		INSTALLATION DATE 8/16/92
DRILLER KEVIN SHAMWAY		WEATHER SUNNY, 70'S



PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-5D PROJ. NO. 496B

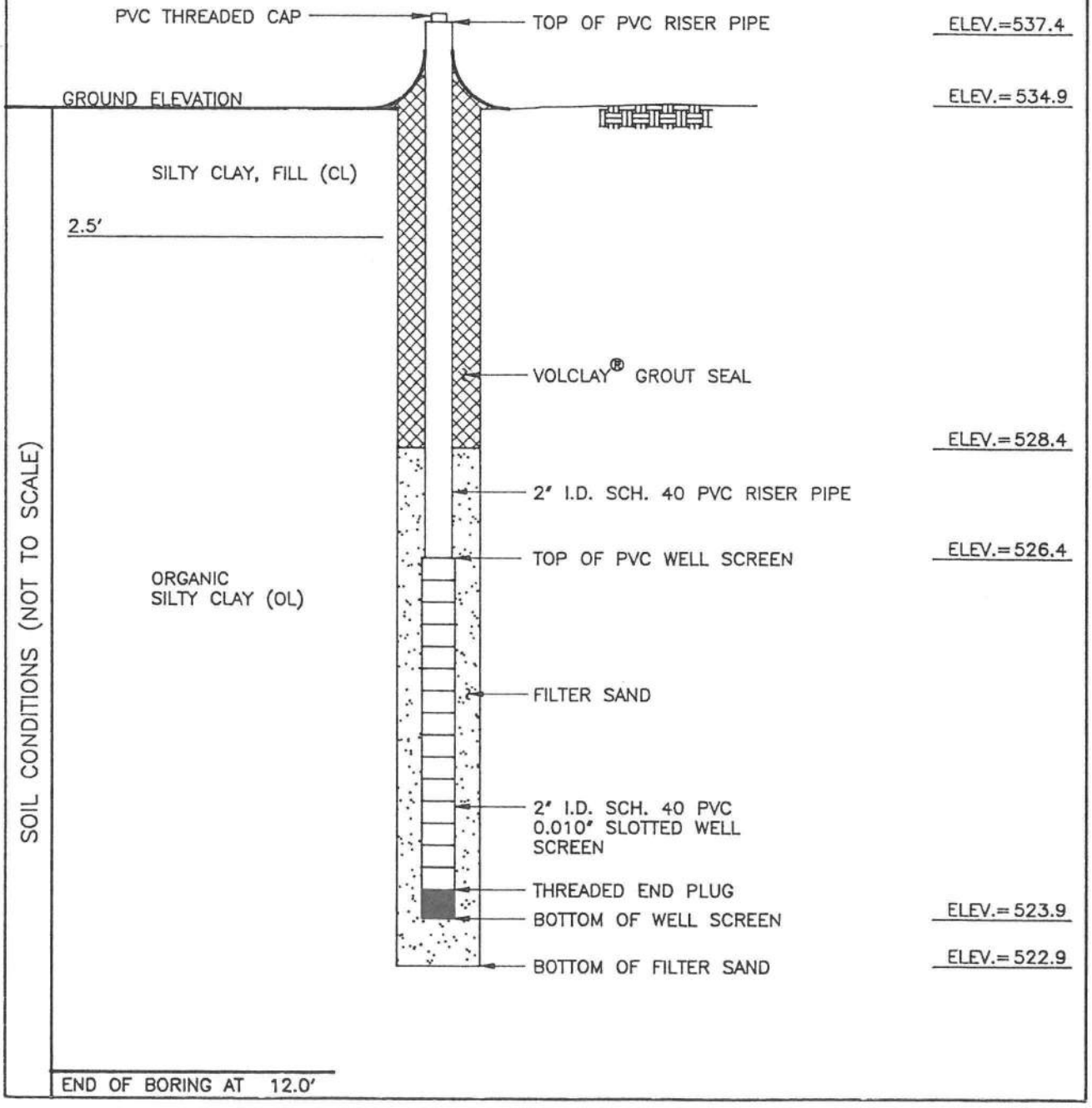
PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER KRISHNA REDDY
DRILLER KEVIN SHAMWAY

BORING NO. P-5D
LOCATION N 4516.7
E 2885.0
INSTALLATION DATE 8/16/92
WEATHER SUNNY, 70'S

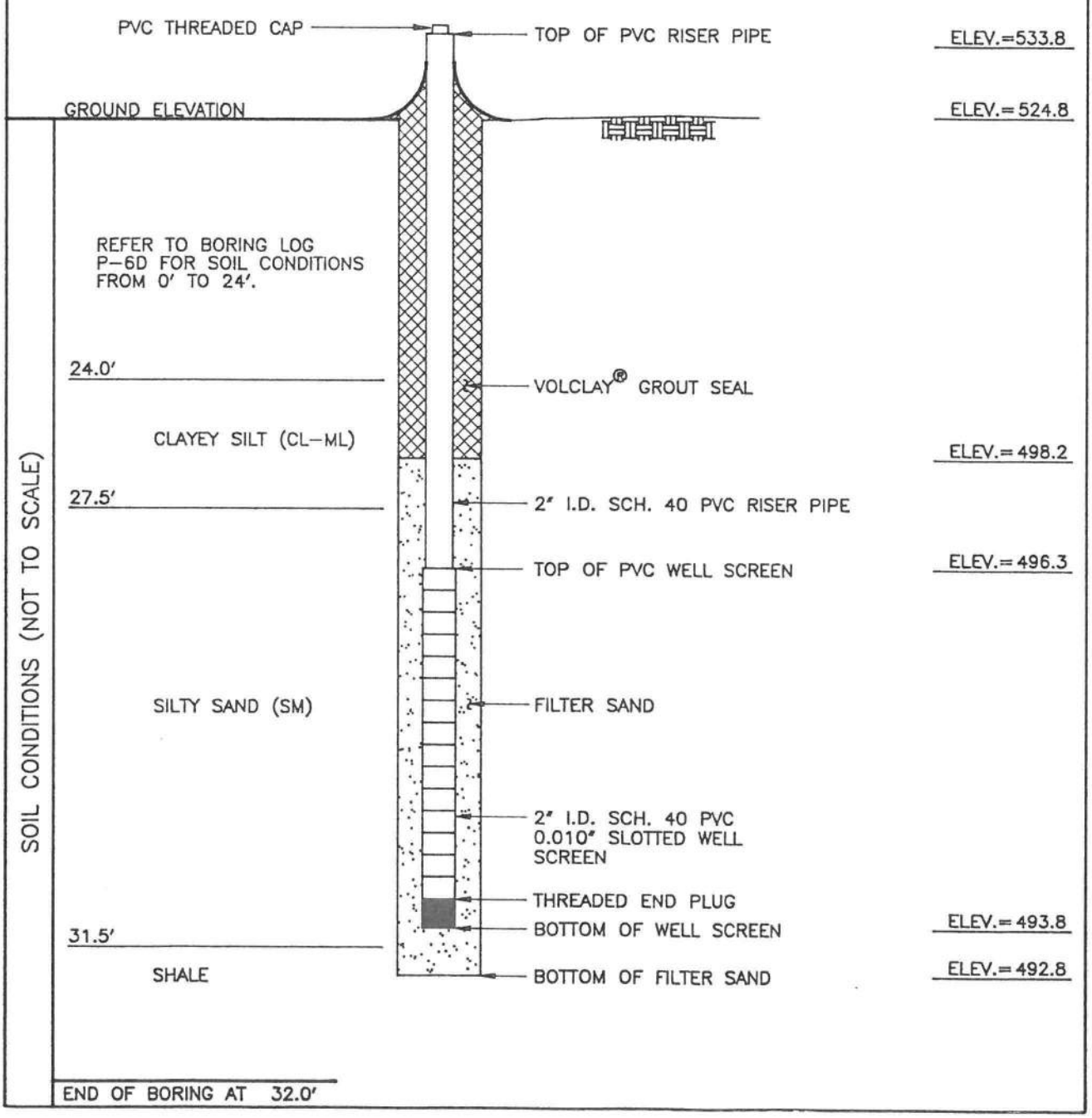


PROJECTS/496/496B-003 10/13/92

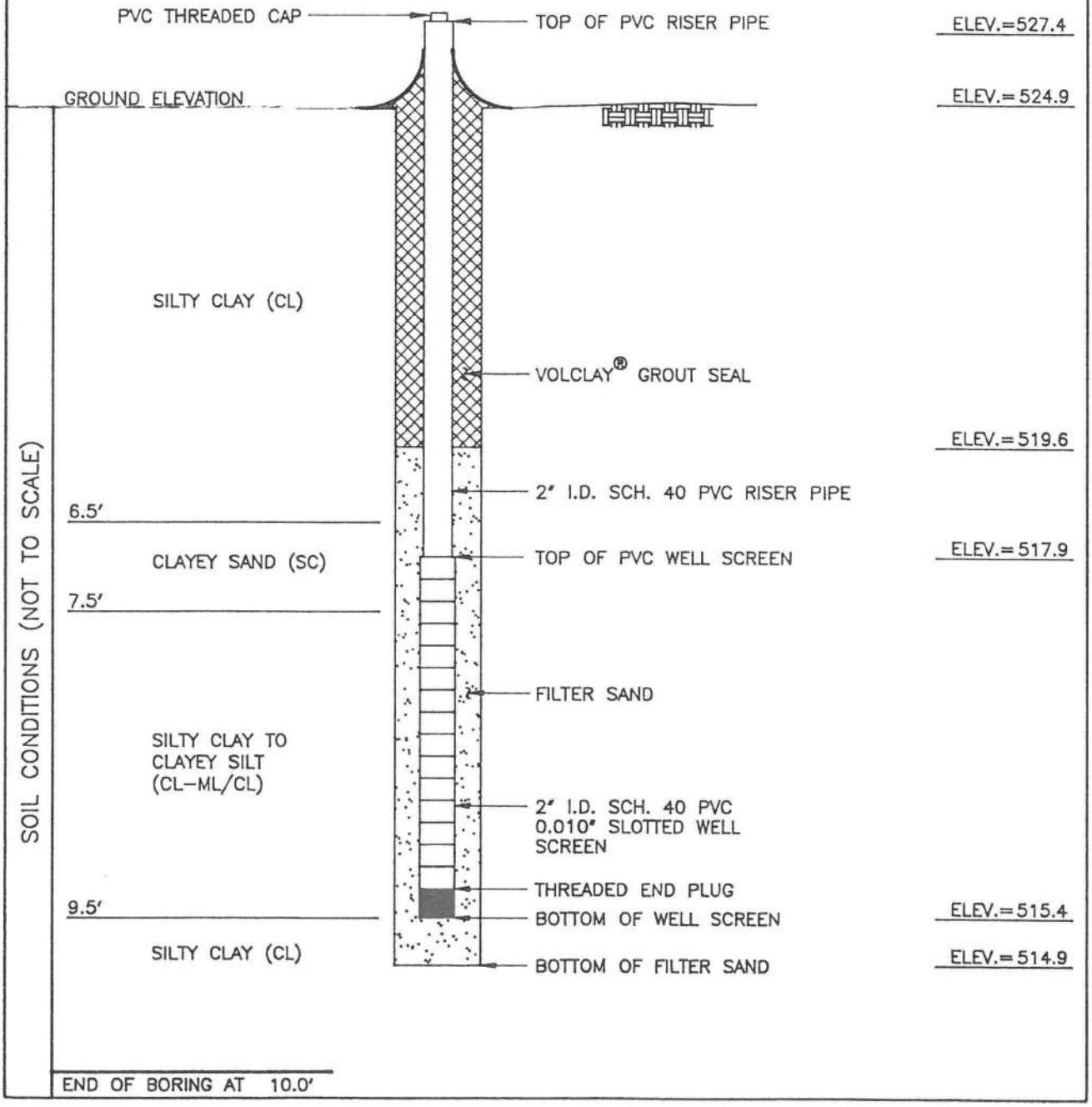
PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-5S PROJ. NO. 496B
PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P ENGINEER KRISHNA REDDY DRILLER KEVIN SHAMWAY		BORING NO. P-5S LOCATION N 4510.7 E 2887.0 INSTALLATION DATE 8/16/92 WEATHER SUNNY, 70'S



PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-6D PROJ. NO. 496B
PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P ENGINEER KRISHNA REDDY DRILLER KEVIN SHAMWAY		BORING NO. P-6D LOCATION N 4717.0 E 2186.8 INSTALLATION DATE 8/12/92 WEATHER SUNNY, 70'S



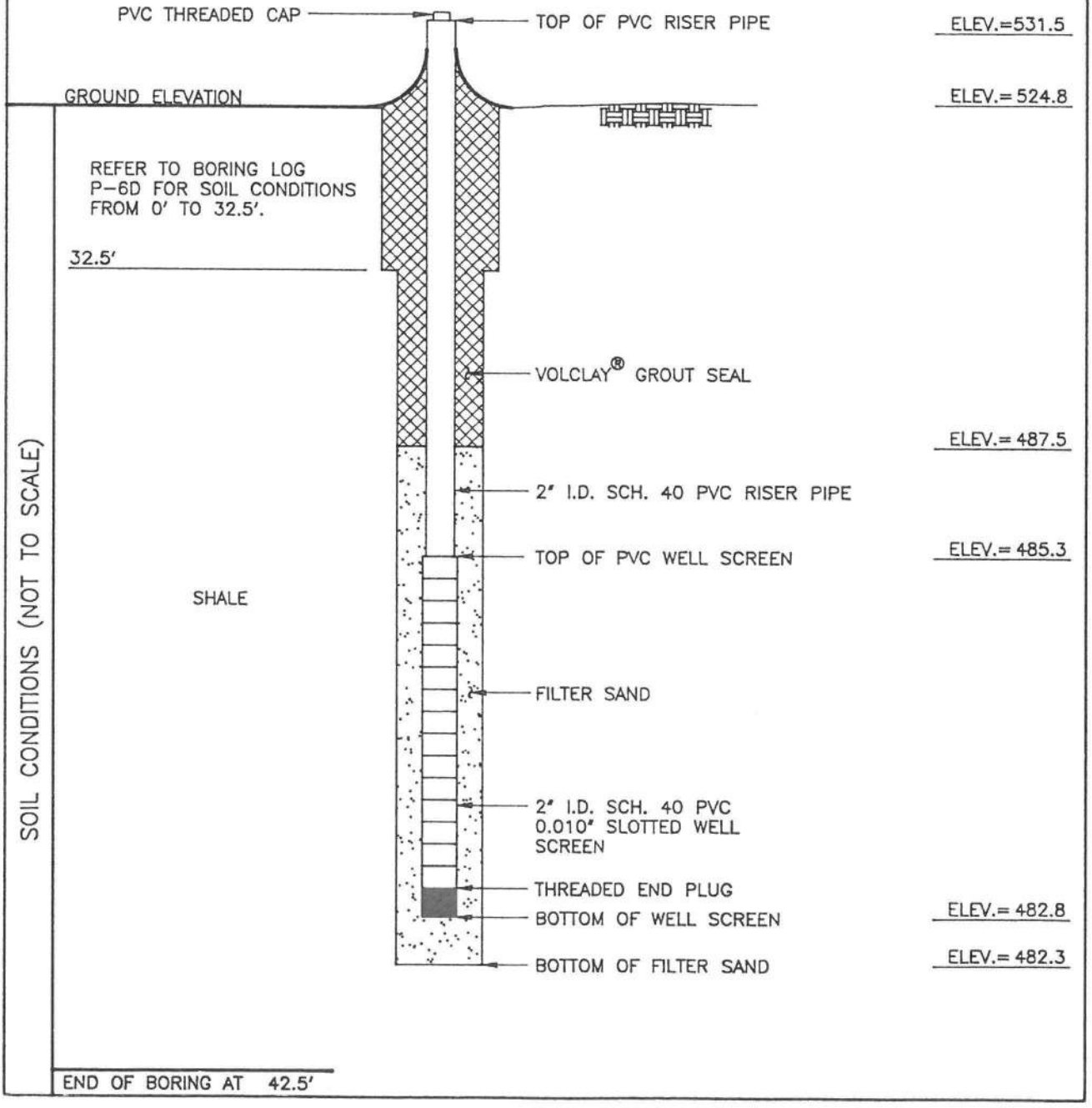
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PROJECT FGDS LANDFILL		BORING NO. P-6S
LOCATION SPRINGFIELD, ILLINOIS		LOCATION N 4725.7
CLIENT CWL&P		E 2191.4
ENGINEER KRISHNA REDDY		INSTALLATION DATE 8/12/92
DRILLER KEVIN SHAMWAY		WEATHER SUNNY, 70'S



PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-6R PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER KRISHNA REDDY
DRILLER KEVIN SHAMWAY

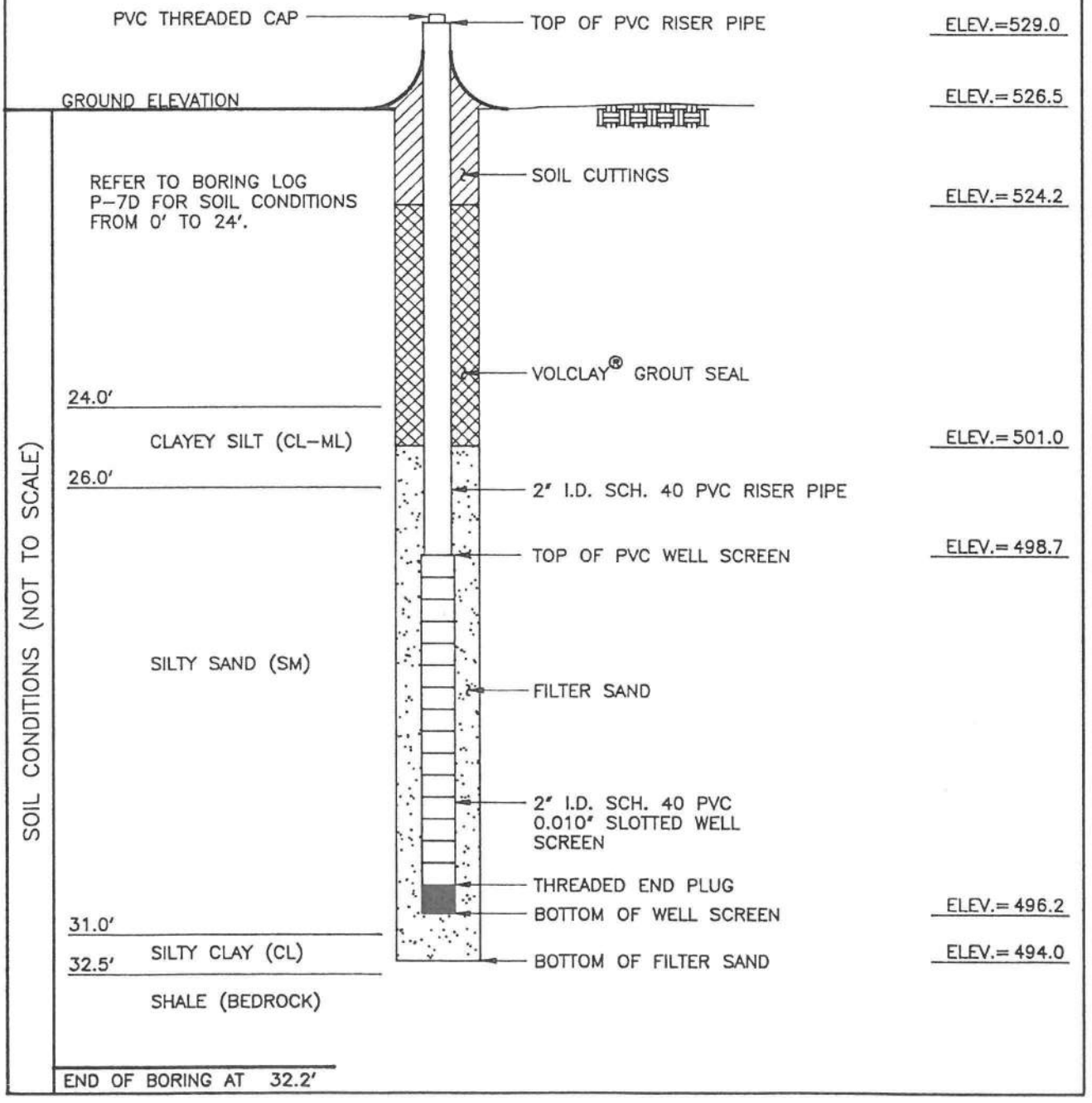
BORING NO. P-6R
LOCATION N 4719.5
E 2175.7
INSTALLATION DATE 8/6/92
WEATHER SUNNY, 70'S



PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-7D PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER KRISHNA REDDY
DRILLER KEVIN SHAMWAY

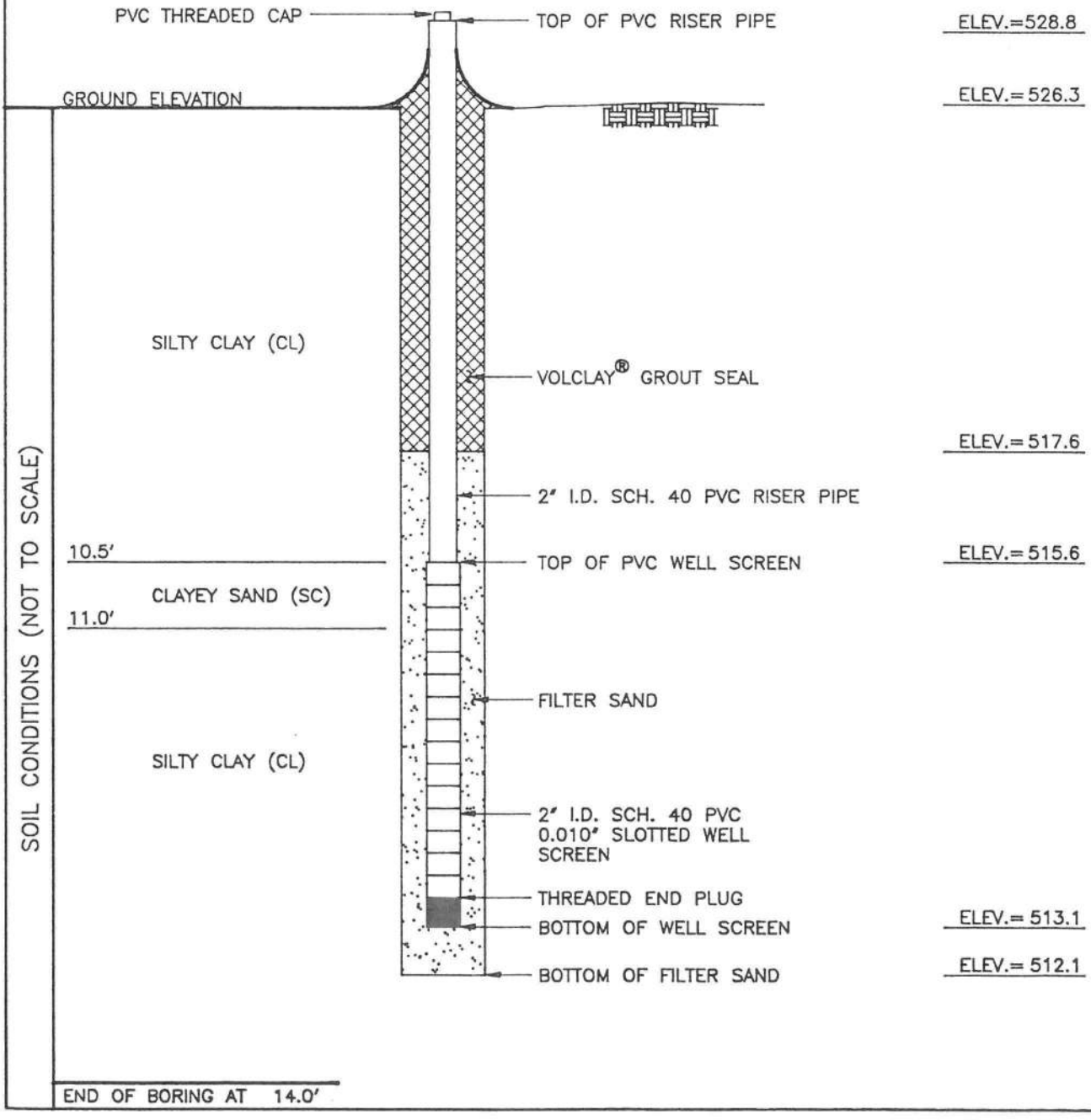
BORING NO. P-7D
LOCATION N 5345.8
E 2429.5
INSTALLATION DATE 7/30/92
WEATHER RAIN, WARM, 80'S



PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-7S PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER KRISHNA REDDY
DRILLER KEVIN SHAMWAY

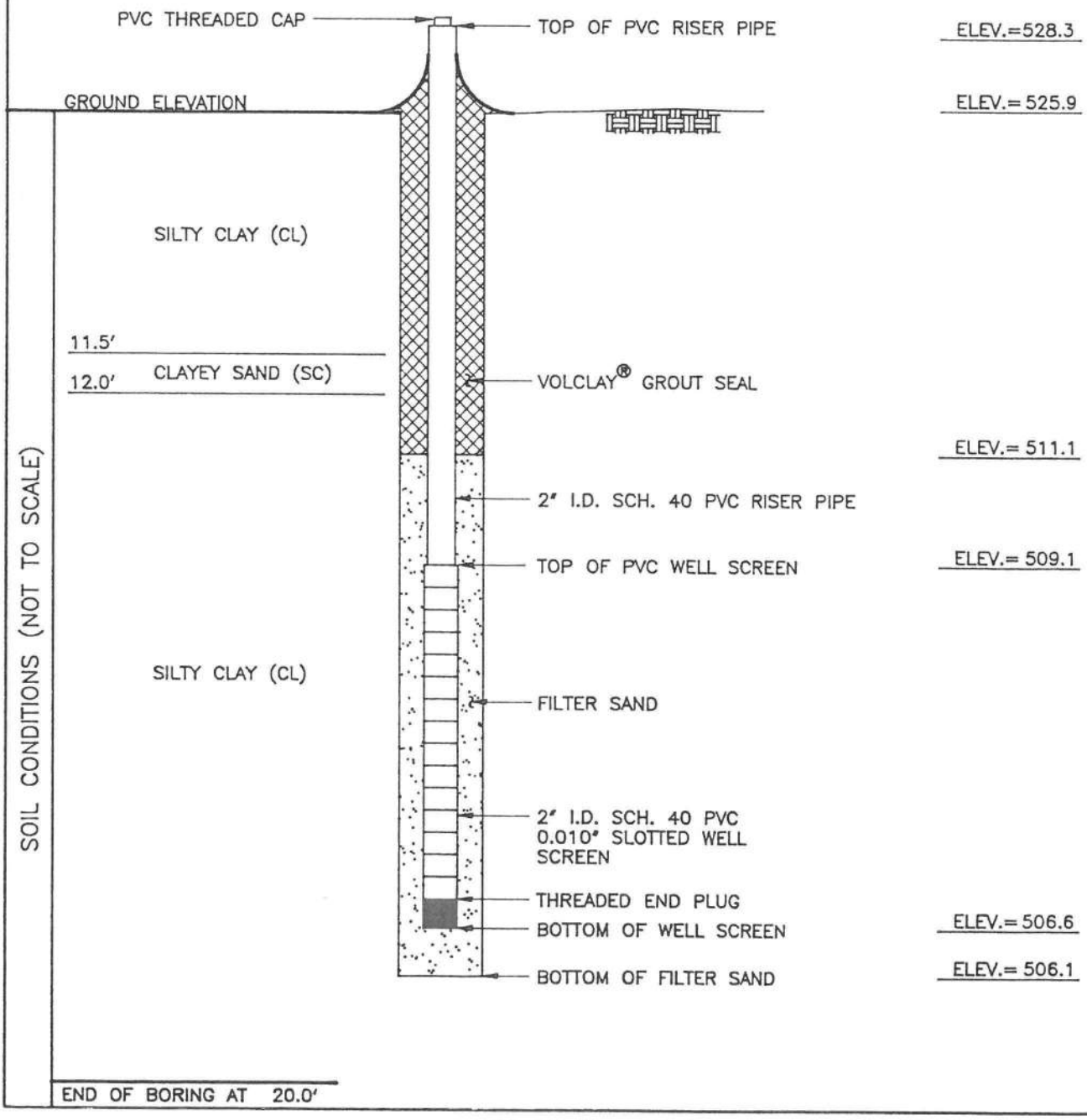
BORING NO. P-7S
LOCATION N 5337.1
E 2426.3
INSTALLATION DATE 7/30/92
WEATHER RAIN, WARM, 80'S



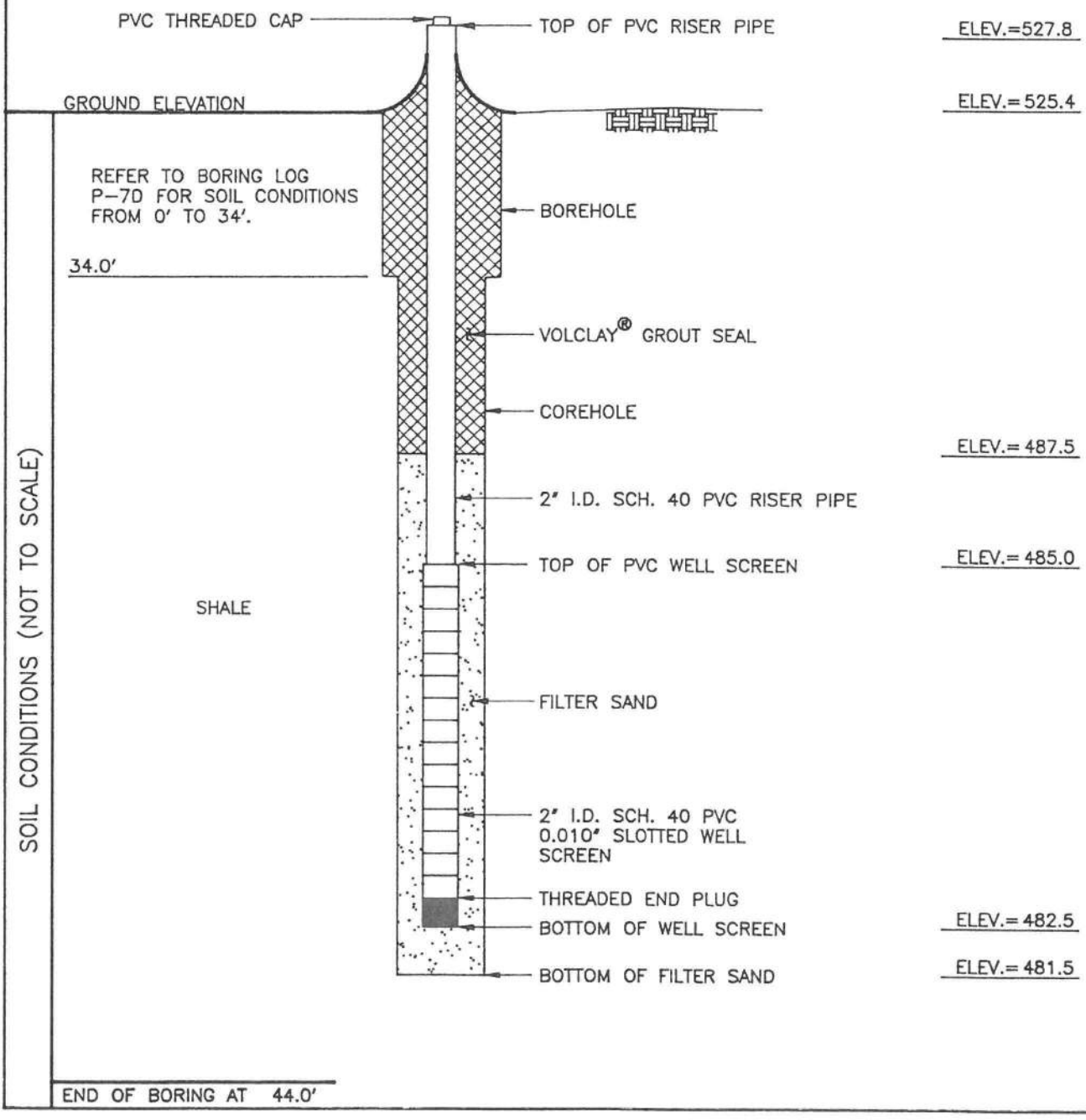
PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-7M PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER KRISHNA REDDY
DRILLER KEVIN SHAMWAY

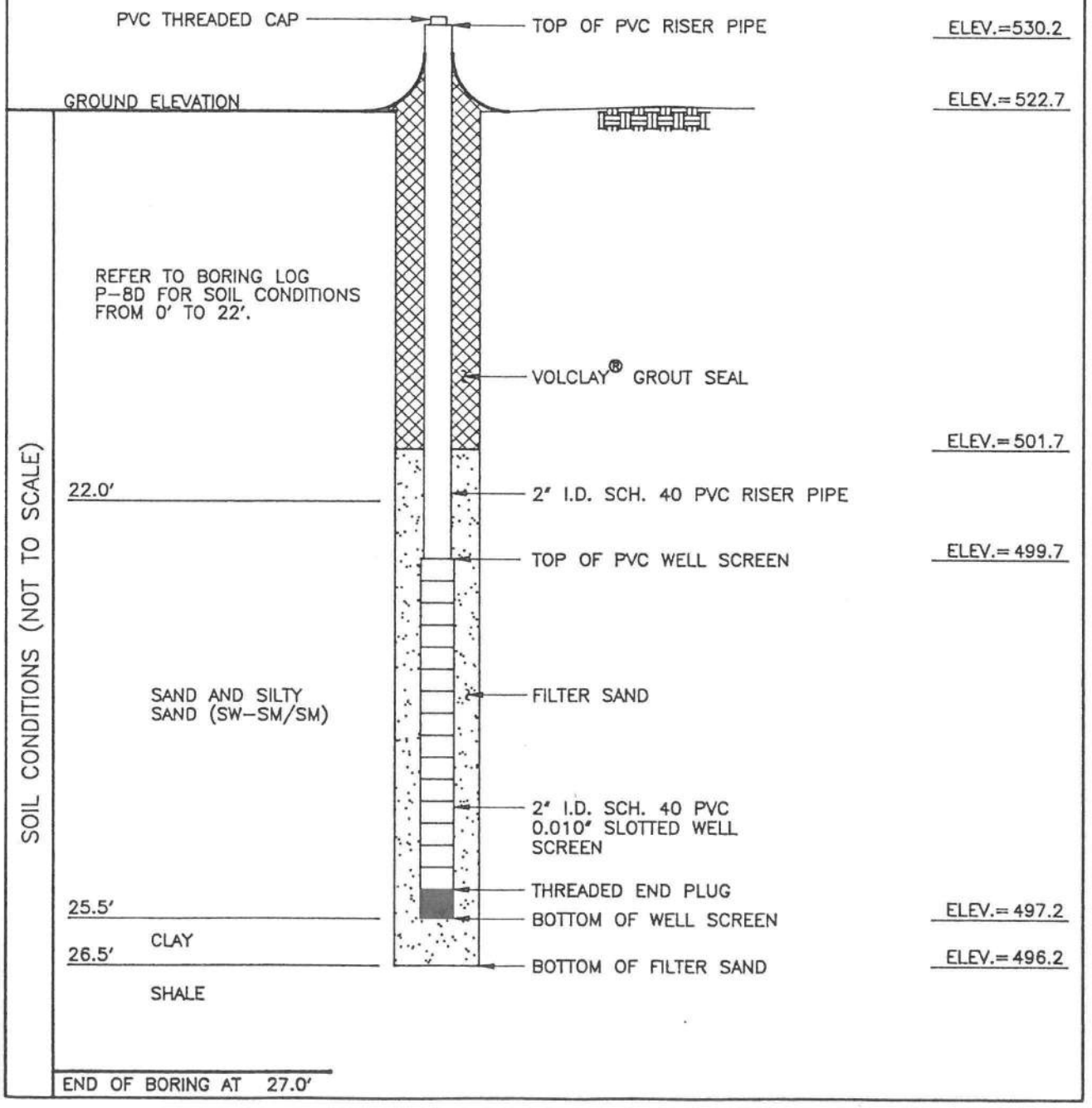
BORING NO. P-7M
LOCATION N 5337.0
E 2432.8
INSTALLATION DATE 7/30/92
WEATHER RAIN, WARM, 80'S



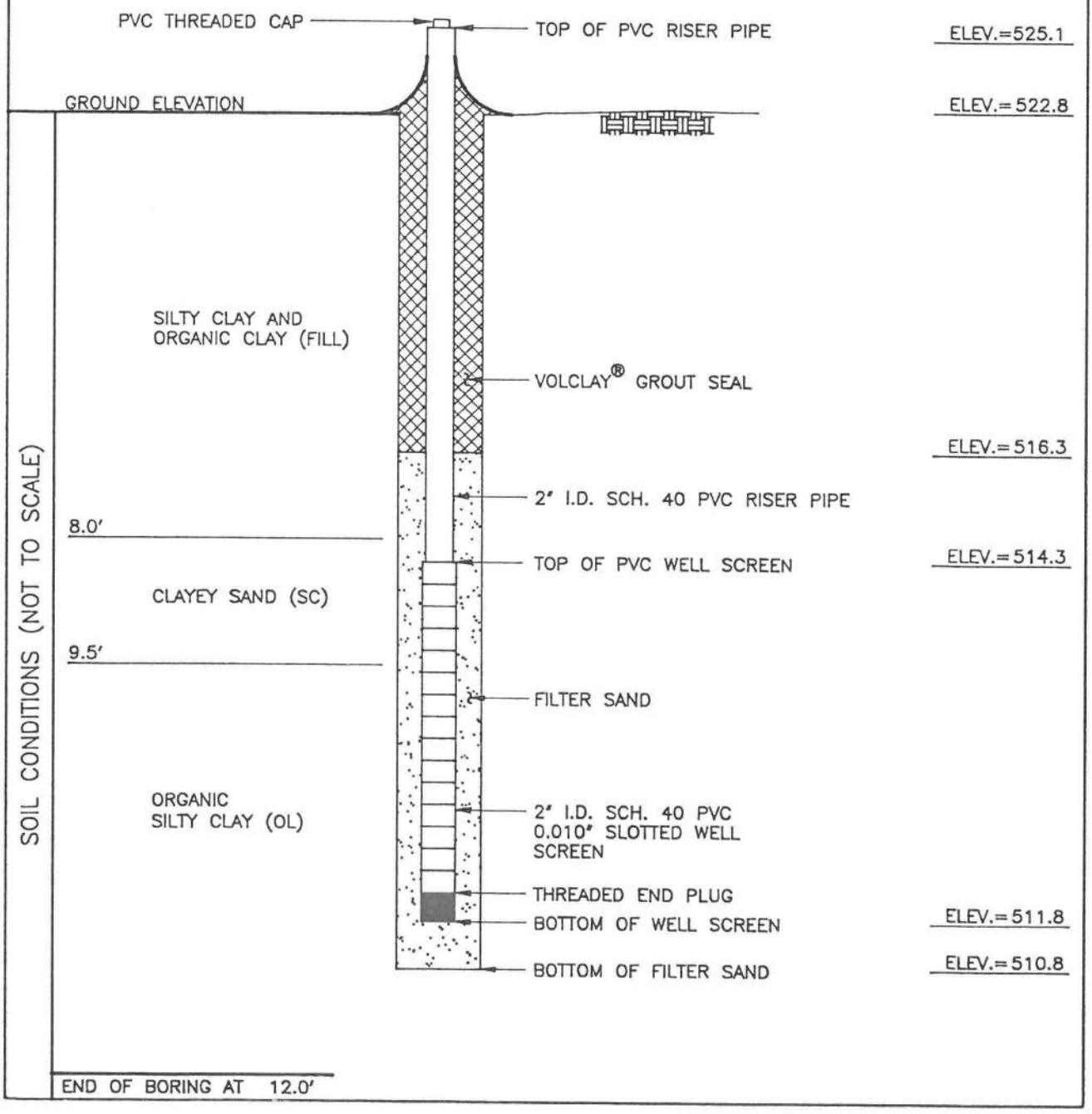
PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-7R PROJ. NO. 496B
PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P ENGINEER KRISHNA REDDY DRILLER KEVIN SHAMWAY		BORING NO. P-7R LOCATION N 5326.9 E 2424.5 INSTALLATION DATE 7/31/92 WEATHER CLOUDY, DRIZZLE, 70'S



PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-8D PROJ. NO. 496B
PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P ENGINEER KRISHNA REDDY DRILLER KEVIN SHAMWAY		BORING NO. P-8D LOCATION N 4939.7 E 2482.7 INSTALLATION DATE 8/13/92 WEATHER CLOUDY, 70'S



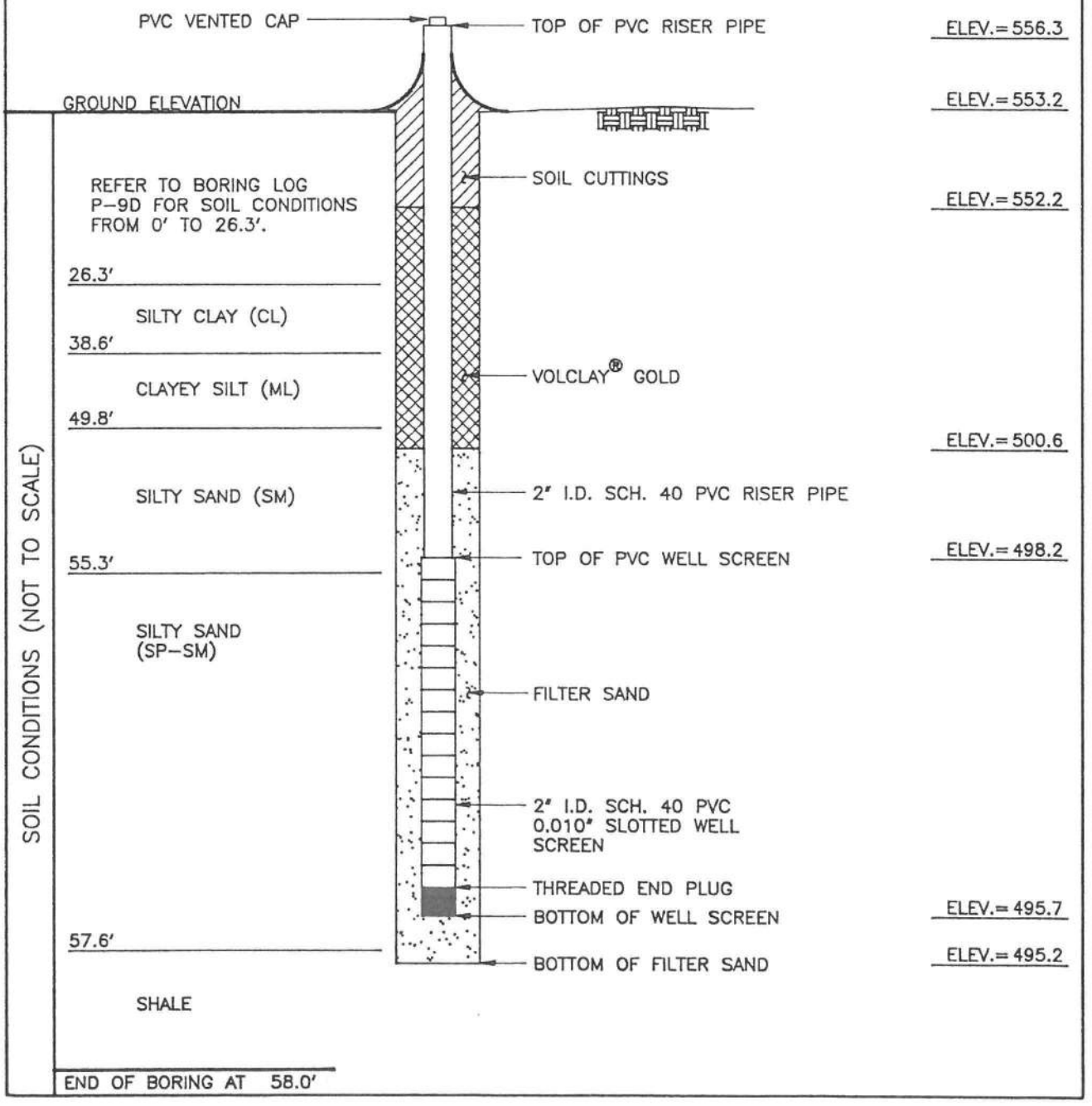
PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-8S PROJ. NO. 496B
PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P ENGINEER KRISHNA REDDY DRILLER KEVIN SHAMWAY		BORING NO. P-8S LOCATION N 4933.1 E 2486.0 INSTALLATION DATE 8/13/92 WEATHER CLOUDY, 70'S



PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-9D PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER/GEOLOGIST STEVE SCHILLING
DRILLER KEVIN SHAMWAY

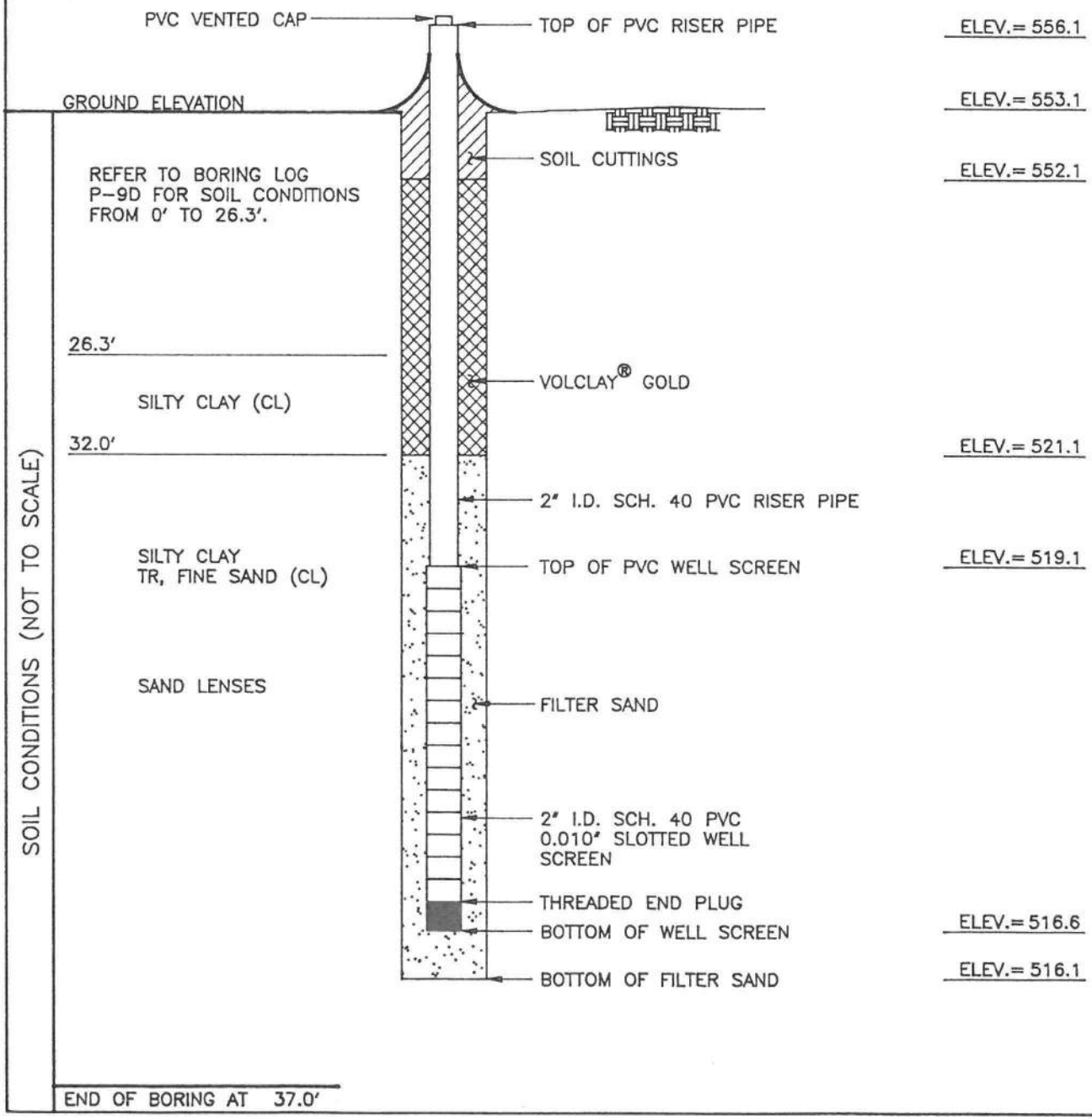
BORING NO. P-9D
LOCATION N 4446.3
E 2422.4
INSTALLATION DATE 8/18/92
WEATHER PTLY CLDY, 70'S



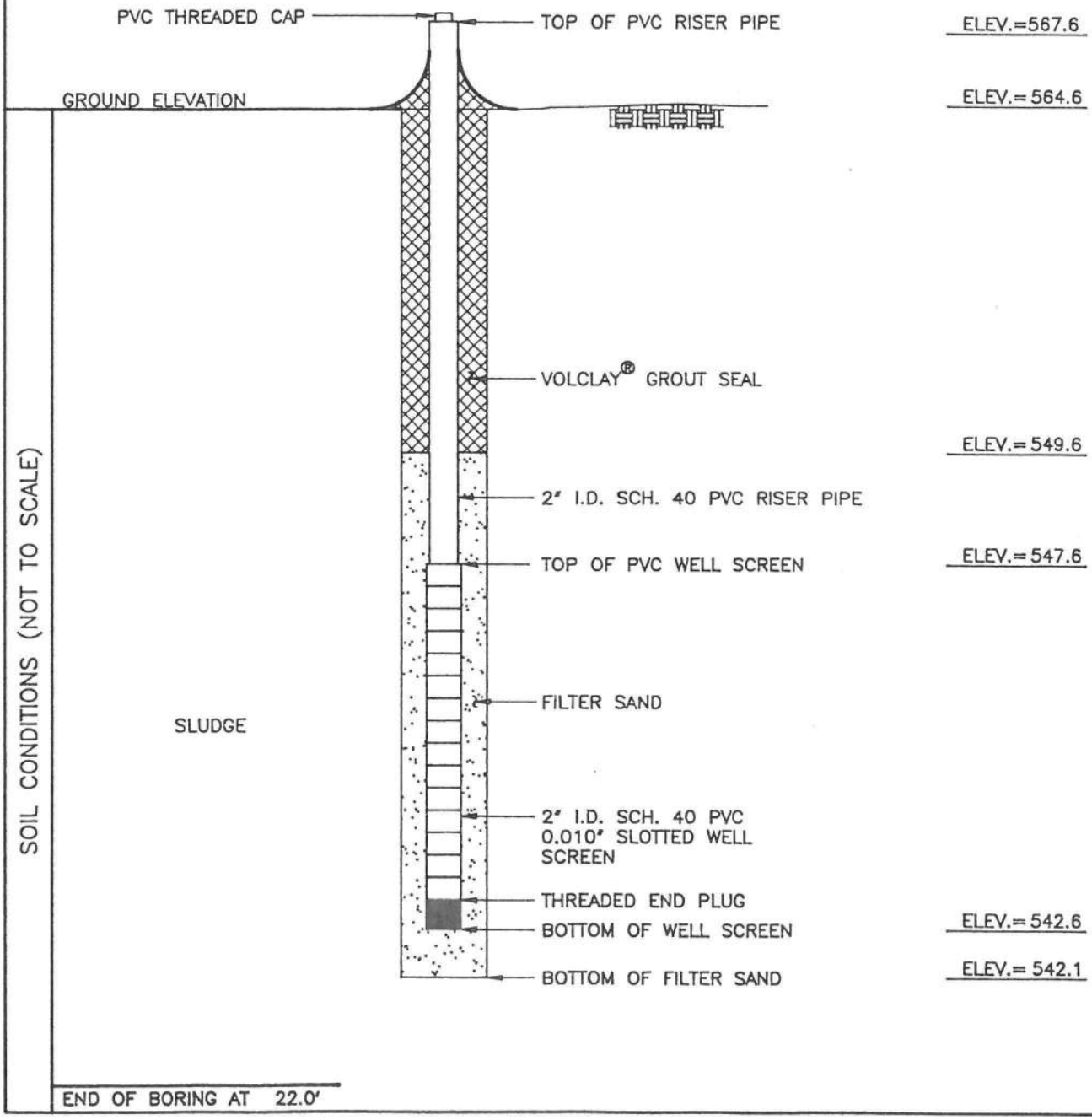
PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. P-9S PROJ. NO. 496B

PROJECT FGDS LANDFILL
LOCATION SPRINGFIELD, ILLINOIS
CLIENT CWL&P
ENGINEER/GEOLOGIST STEVE SCHILLING
DRILLER KEVIN SHAMWAY

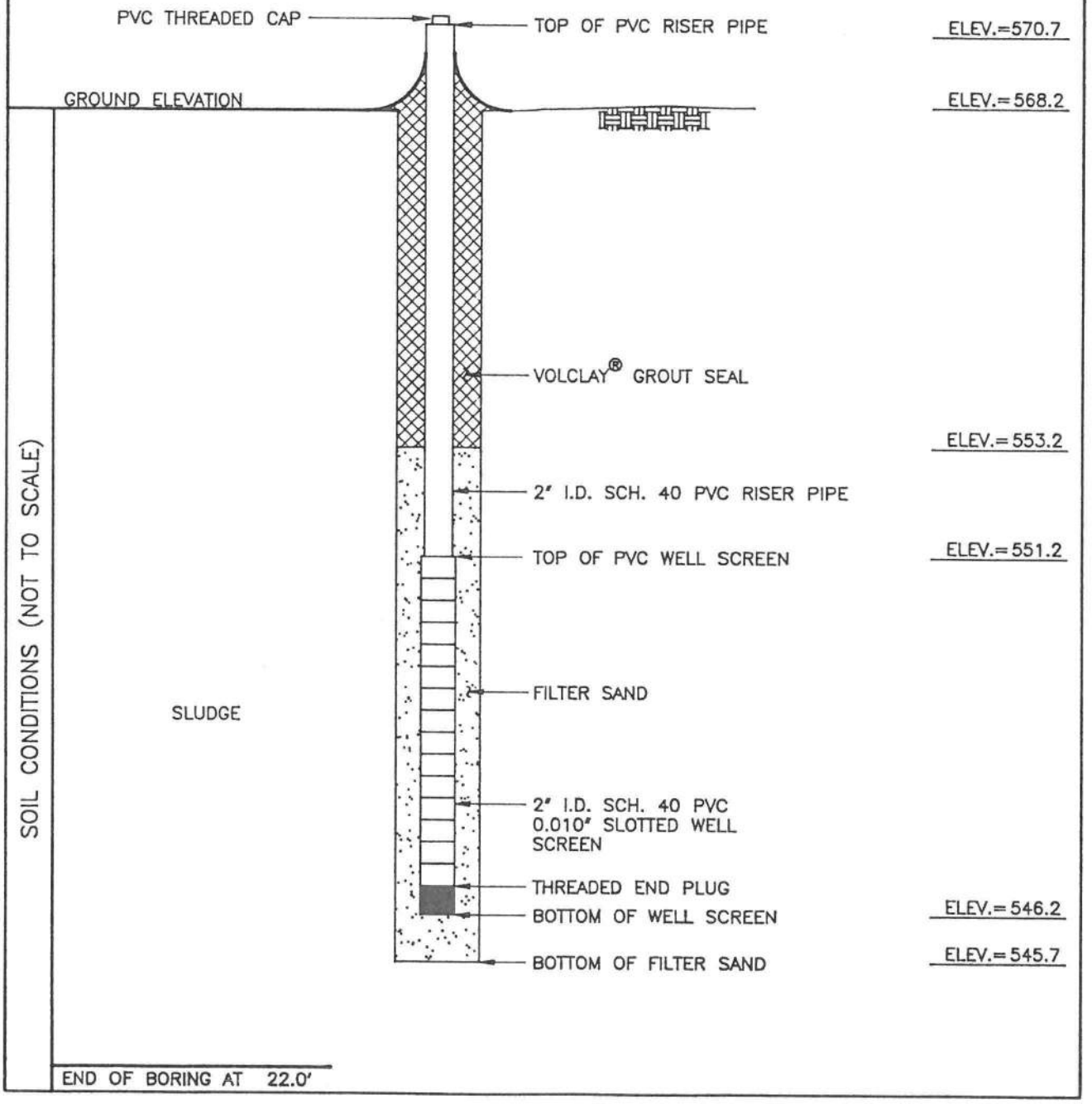
BORING NO. P-9S
LOCATION N 4447.3
E 2415.6
INSTALLATION DATE 8/19/92
WEATHER CLOUDY, 70'S



PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. LP-1 PROJ. NO. 496B
PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P GEOLOGIST STEVE VANHOOK DRILLER MANUAL ROSARIO		BORING NO. LP-1 LOCATION N 4326.5 E 2639.9 INSTALLATION DATE 7/25/92 WEATHER CLOUDY, 70'S



PATRICK ENGINEERING INC.	PIEZOMETER INSTALLATION REPORT	PIEZ. NO. LP-2 PROJ. NO. 496B
PROJECT FGDS LANDFILL LOCATION SPRINGFIELD, ILLINOIS CLIENT CWL&P GEOLOGIST STEVE VANHOOK DRILLER MANUAL ROSARIO		BORING NO. LP-2 LOCATION N 4257.5 E 2365.8 INSTALLATION DATE 7/25/92 WEATHER CLOUDY, 70'S



APPENDIX B2:
FGDS UNIT 2 LANDFILL MONITORING WELL CONSTRUCTION REPORTS

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: R-101

Site Name: CWLP - Ash Disposal Facility Grid Coordinate: Northing 623.22 Easting 1426.13

Drilling Contractor: Professional Service Industries, Inc. Date Drilled Start: January 15, 1990

Driller: B. Williamson Geologist: -- Date Completed: January 15, 199

Drilling Method: Hollow Stem Auger - 3¼" I.D. Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Cement/Bentonite Grout

Amount of cement: # of bags 3 lbs. per bag 94

Amount of bentonite: # of bags 0.1 lbs. per bag 50

Type of Bentonite Seal (Granular, Pellet): Pellet

Amount of bentonite: # of Bags 0.8 lbs. per bag 50

Type of Sand Pack: Silica Sand (Marco-Sandblasting)

Source of Sand: Henry Nelch & Son Co., Springfield, IL

Amount of Sand: # of bags 1.8 lbs. per bag 100

Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint			--	
Riser pipe above w.t.			2"	
Riser pipe below w.t.			2"	
Screen			2"	
Coupling joint screen to riser			--	
Protective casing				6"X5' Steel

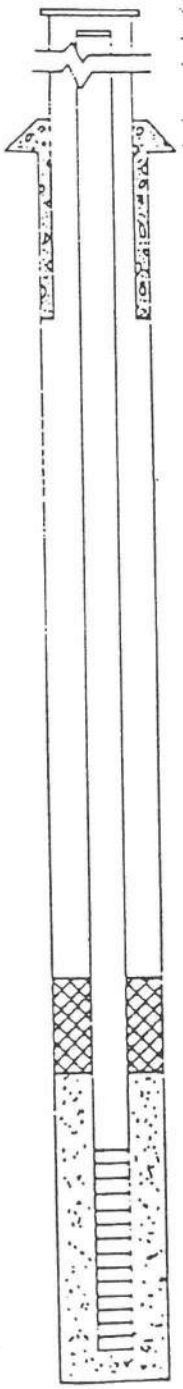
Measurements

to .01 ft. (where applicable)

Riser pipe length	31.6'
Protective casing length	5'
Screen length	6'
Bottom of screen to end cap	0.3'
Top of screen to first joint	0.3'
Total length of casing	37.6'
Screen slot size	0.010
# of openings in screen	--
Diameter of borehole (in)	6
ID of riser pipe (in)	2

Elevations — .01 ft.

546 83 MSL Top of Protective Casing
546 68 MSL Top of Riser Pipe
+2.9 ft. Casing Stickup
543 78 MSL Ground Surface
-3.1 ft. Top of annular sealant
-21.3 ft. Top of Seal
2.8 ft. Total Seal Interval
-24.1 ft. Top of Sand
-25.8 ft. Top of Screen
6.0 ft. Total Screen Interval
-31.8 ft. Bottom of Screen
-34.0 ft. Bottom of Borehole



Completed by: Surveyed by: Ill. registration #

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: R-102

Site Name: CWLP - Ash Disposal Facility Grid Coordinate: Northing 2294.50 Easting 674.54

Drilling Contractor: Professional Service Industries, Inc. Date Drilled Start: January 11, 1990

Driller: B. Williamson Geologist: -- Date Completed: January 11, 19

Drilling Method: Hollow Stem Auger - 3¼" I.D. Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Cement/Bentonite Grout

Amount of cement: # of bags 4 lbs. per bag 94

Amount of bentonite: # of bags 0.1 lbs. per bag 50

Type of Bentonite Seal (Granular, Pellet): Pellet

Amount of bentonite: # of Bags 0.7 lbs. per bag 50

Type of Sand Pack: Silica Sand (Marco-Sandblasting)

Source of Sand: Henry Nelch & Son Co., Springfield, IL

Amount of Sand: # of bags 2.0 lbs. per bag 100

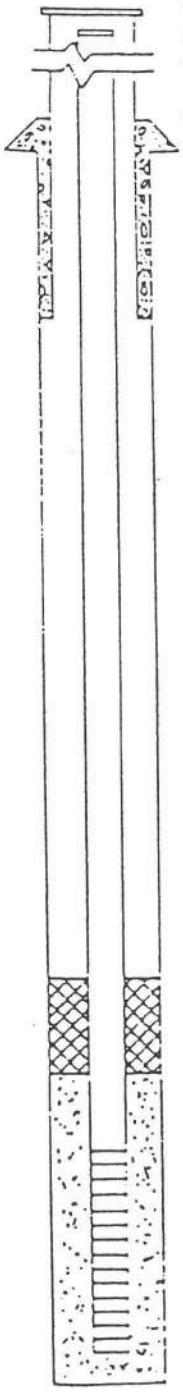
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint			--	
Riser pipe above w.t.			2"	
Riser pipe below w.t.			2"	
Screen			2"	
Coupling joint screen to riser			--	
Protective casing				6"X5' Steel

Measurements

to .01 ft. (where applicable)

Riser pipe length	34.6'
Protective casing length	5'
Screen length	6'
Bottom of screen to end cap	0.3'
Top of screen to first joint	0.3'
Total length of casing	40.6'
Screen slot size	0.010
# of openings in screen	--
Diameter of borehole (in)	6
ID of riser pipe (in)	2



Elevations — .01 ft.

539 35		MSL Top of Protective Casi
539 16		MSL Top of Riser Pipe
	+3.4	ft. Casing Stickup
535 76		MSL Ground Surface
	-3.0	ft. Top of annular sealant
	-25.5	ft. Top of Seal
	2.9	ft. Total Seal Interval
	-28.4	ft. Top of Sand
	-31.2	ft. Top of Screen
	6.0	ft. Total Screen Interval
	-37.2	ft. Bottom of Screen
	-38.0	ft. Bottom of Borehole

Completed by: Surveyed by: Ill. registration #

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: R-103

Site Name: CWLP - Ash Disposal Facility Grid Coordinate: Northing 2208.19 Easting 1504.46

Drilling Contractor: Professional Service Industries, Inc. Date Drilled Start: January 13, 1990

Driller: B. Williamson Geologist: -- Date Completed: January 13, 19

Drilling Method: Hollow Stem Auger - 3¼" I.D. Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Cement/Bentonite Grout

Amount of cement: # of bags 3 lbs. per bag 94

Amount of bentonite: # of bags 0.1 lbs. per bag 50

Type of Bentonite Seal (Granular, Pellet): Pellet

Amount of bentonite: # of Bags 0.8 lbs. per bag 50

Type of Sand Pack: Silica Sand (Marco-Sandblasting)

Source of Sand: Henry Nelch & Son Co., Springfield, IL

Amount of Sand: # of bags 1.7 lbs. per bag 100

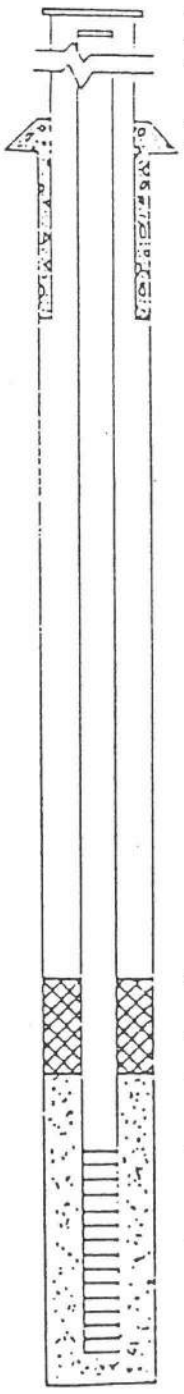
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint			--	
Riser pipe above w.t.			2"	
Riser pipe below w.t.			2"	
Screen			2"	
Coupling joint screen to riser			--	
Protective casing				6"X5' Steel

Measurements

to .01 ft. (where applicable)

Riser pipe length	28.8'
Protective casing length	5'
Screen length	6'
Bottom of screen to end cap	0.3'
Top of screen to first joint	0.3'
Total length of casing	34.8
Screen slot size	0.010
# of openings in screen	--
Diameter of borehole (in)	6
ID of riser pipe (in)	2



Elevations — .01 ft.

538 66 MSL Top of Protective Casi
538 58 MSL Top of Riser Pipe
+2.5 ft. Casing Stickup
536 08 MSL Ground Surface
-3.2 ft. Top of annular sealant
-20.5 ft. Top of Seal
2.9 ft. Total Seal Interval
-23.4 ft. Top of Sand
-26.3 ft. Top of Screen
6.0 ft. Total Screen Interval
-32.3 ft. Bottom of Screen
-33.0 ft. Bottom of Borehole

Completed by: Surveyed by: Ill. registration #

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: G-104

Site Name: CWLP - Ash Disposal Facility Grid Coordinate: Northing 2296.94 Easting 938.06

Drilling Contractor: Professional Service Industries, Inc. Date Drilled Start: January 12, 1990

Driller: B. Williamson Geologist: -- Date Completed: January 12, 19

Drilling Method: Hollow Stem Auger - 3¼" I.D. Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Cement/Bentonite Grout

Amount of cement: # of bags 3.3 lbs. per bag 94

Amount of bentonite: # of bags 0.1 lbs. per bag 50

Type of Bentonite Seal (Granular, Pellet): Pellet

Amount of bentonite: # of Bags 0.6 lbs. per bag 50

Type of Sand Pack: Silica Sand (Marco-Sandblasting)

Source of Sand: Henry Nelch & Son Co., Springfield, IL

Amount of Sand: # of bags 1.9 lbs. per bag 100

Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint			--	
Riser pipe above w.t.			2"	
Riser pipe below w.t.			2"	
Screen			2"	
Coupling joint screen to riser			--	
Protective casing				6"X5' Steel

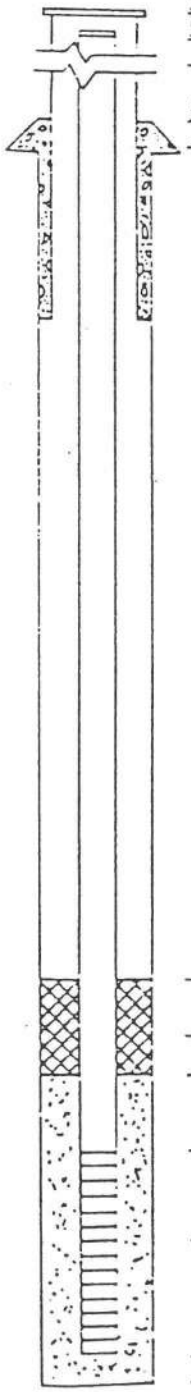
Measurements

to .01 ft. (where applicable)

Riser pipe length	27.9'
Protective casing length	5'
Screen length	6'
Bottom of screen to end cap	0.3'
Top of screen to first joint	0.3'
Total length of casing	33.9
Screen slot size	0.010
# of openings in screen	--
Diameter of borehole (in)	6
ID of riser pipe (in)	2

Elevations — .01 ft.

533	52	MSL Top of Protective Cast
532	95	MSL Top of Riser Pipe
____	+2.3	ft. Casing Stickup
530	65	MSL Ground Surface
____	-2.8	ft. Top of annular sealant
____	21.5	ft. Top of Seal
____	2.1	ft. Total Seal Interval
____	-23.6	ft. Top of Sand
____	-25.6	ft. Top of Screen
____	6.0	ft. Total Screen Interval
____	-31.6	ft. Bottom of Screen
____	-36.0	ft. Bottom of Borehole



Completed by: _____ Surveyed by: _____ Ill. registration # _____

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: G-105 / G120

Site Name: CWLP - Ash Disposal Facility Grid Coordinate. Northing: 1641.61 Easting: 610.10

Drilling Contractor: Professional Service Industries, Inc. Date Drilled Start: January 9, 1990

Driller: B. Williamson Geologist: -- Date Completed: January 16, 19
(Re-Drilled w/4½" I.D.)

Drilling Method: Hollow Stem Auger - 3½" I.D & 4½" I.D Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Cement/Bentonite Grout

Amount of cement: # of bags 6 lbs. per bag 94

Amount of bentonite: # of bags 0.2 lbs. per bag 50

Type of Bentonite Seal (Granular, Pellet): Pellet

Amount of bentonite: # of Bags 0.5 lbs. per bag 50

Type of Sand Pack: Silica Sand (Marco-Sandblasting)

Source of Sand: Henry Nelch & Son Co., Springfield, IL

Amount of Sand: # of bags 1.8 lbs. per bag 100

Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint			--	
Riser pipe above w.t.			2"	
Riser pipe below w.t.			2"	
Screen			2"	
Coupling joint screen to riser			--	
Protective casing				6"X5' Steel

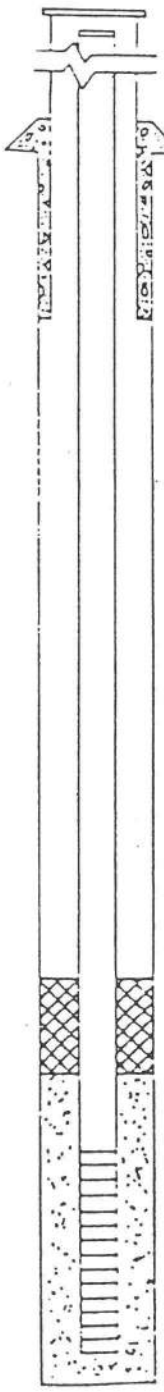
Measurements

to .01 ft. (where applicable)

Riser pipe length	43.9
Protective casing length	Flush Mount
Screen length	6'
Bottom of screen to end cap	0.3'
Top of screen to first joint	0.3'
Total length of casing	49.9
Screen slot size	0.010
# of openings in screen	--
Diameter of borehole (in)	8
ID of riser pipe (in)	2

Elevations — .01 ft.

553	49	MSL Top of Protective Cas
553	25	MSL Top of Riser Pipe
	+0.1	ft. Casing Stickup
553	49	MSL Ground Surface
	-2.9	ft. Top of annular sealant
	-40.5	ft. Top of Seal
	2.0	ft. Total Seal Interval
	-42.5	ft. Top of Sand
	-43.8	ft. Top of Screen
	6.0	ft. Total Screen Interval
	-49.8	ft. Bottom of Screen
	-53.0	ft. Bottom of Borehole



Completed by: Surveyed by: Ill. registration #

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: G-106

Site Name: CWLP Ash Disposal Facility Grid Coordinate: Northing 1760.44 Easting 983.64

Drilling Contractor: Professional Service Industries, Inc. Date Drilled Start: February 23, 1990

Driller: B. Williamson Geologist: -- Date Completed: February 23, 199

Drilling Method: Hollow stem auger- 3¼" I.D. Drilling Fluids (type): none

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Cement/Bentonite grout

Amount of cement: # of bags 4 lbs. per bag 94

Amount of bentonite: # of bags 0.1 lbs. per bag 50

Type of Bentonite Seal (Granular, Pellet): Pellet

Amount of bentonite: # of Bags 0.8 lbs. per bag 50

Type of Sand Pack: Silica Sand (Marco - Sandblasting)

Source of Sand: Henry Nelch & Son Co. Springfield, IL

Amount of Sand: # of bags 2.0 lbs. per bag 100.0

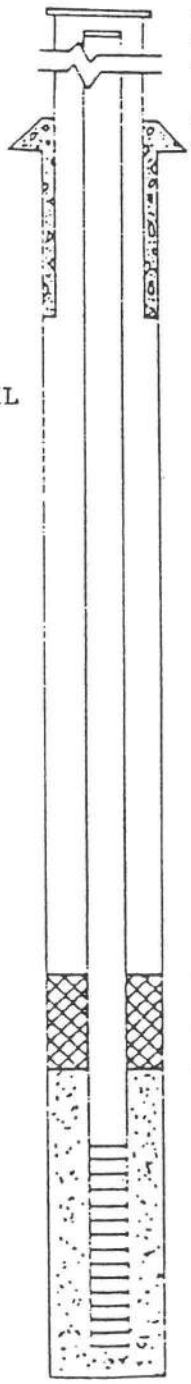
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint			--	
Riser pipe above w.t.			3"	
Riser pipe below w.t.			3"	
Screen			3"	
Coupling joint screen to riser			--	
Protective casing				6"x5'

Measurements

to .01 ft. (where applicable)

Riser pipe length	31.3'
Protective casing length	5'
Screen length	8'
Bottom of screen to end cap	0.3'
Top of screen to first joint	0.3'
Total length of casing	39.3'
Screen slot size	0.010
# of openings in screen	--
Diameter of borehole (in)	6
ID of riser pipe (in)	3



Elevations — .01 ft.

525	49	MSL Top of Protective Casing
525	37	MSL Top of Riser Pipe
	1.2	ft. Casing Stickup
524	17	MSL Ground Surface
	-3.0	ft. Top of annular sealant
	-16.5	ft. Top of Seal
	5.6	ft. Total Seal Interval
	-22.1	ft. Top of Sand
	-27.0	ft. Top of Screen
	8.0	ft. Total Screen Interval
	-35.0	ft. Bottom of Screen
	-35.0	ft. Bottom of Borehole

Completed by: Surveyed by: Ill. registration #

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: G-110

Site Name: EGDS Landfill/ City Water, Light and Power Grid Coordinate: Northing 3728.6 Easting 2315.7

Drilling Contractor: AE Exploration Corporation Date Drilled Start: 07/12/93

Driller: M. Moore Geologist: B. Hunsberger Date Completed: 07/12/93

Drilling Method: Hollow Stem Auger Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Cement/Bentonite

Amount of cement: # of bags 8 lbs. per bag 94

Amount of bentonite: # of bags 1 lbs. per bag 50

Type of Bentonite Seal (Granular, Pellet): Grout

Amount of bentonite: # of Bags 1 lbs. per bag 50

Type of Sand Pack: #10-20 Silica Sand

Source of Sand: Best Environmental - Chardon, OH

Amount of Sand: # of bags 10 lbs. per bag 50

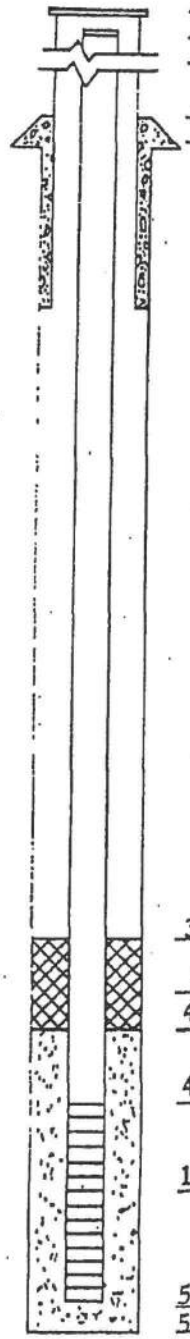
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	Flush			
Riser pipe above w.t.	304			
Riser pipe below w.t.	304			
Screen	304			
Coupling joint screen to riser	Flush			
Protective casing				Steel

Measurements

to .01 ft. (where applicable)

Riser pipe length	47.11'
Protective casing length	5.0'
Screen length	10.0'
Bottom of screen to end cap	0.21
Top of screen to first joint	0.065
Total length of casing	57.11'
Screen slot size	.01"
# of openings in screen	---
Diameter of borehole (in)	8.0"
Diameter riser pipe (in)	2.0"



Elevations — .01 ft.

557 20		MSL Top of Protective Casing
557 11		MSL Top of Riser Pipe
2 61		ft. Casing Stickup
554 50		MSL Ground Surface
3 0		ft. Top of annular sealant
37 0		ft. Top of Seal
5 0		ft. Total Seal Interval
42 0		ft. Top of Sand
44 5		ft. Top of Screen
10 0		ft. Total Screen Interval
54 5		ft. Bottom of Screen
59 5		ft. Bottom of Borehole

Completed by: Brad Hunsberger Surveyed by: City Water, Light and Power Rich Davis IL registration #: 2098

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: G-111

Site Name: City Water, Light & Power Grid Coordinate: Northing 4445.0 Easting 2249.0

Drilling Contractor: AE Exploration Corporation Date Drilled Start: July 20, 1993

Driller: A. Weisenhofer Geologist: R. Hasenyager Date Completed: July 21, 1993

Drilling Method: Hollow Stem Auger Drilling Fluids (type): N/A

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Cement/Bentonite

Amount of cement: # of bags 8 lbs. per bag 94

Amount of bentonite: # of bags 1/2 lbs. per bag 50

Type of Bentonite Seal (Granular, Pellet): Bentonite Grout

Amount of bentonite: # of Bags 1/2 lbs. per bag 50

Type of Sand Pack: Quartz sand (1020)

Source of Sand: Best Sand

Amount of Sand: # of bags 4 1/2 lbs. per bag 50

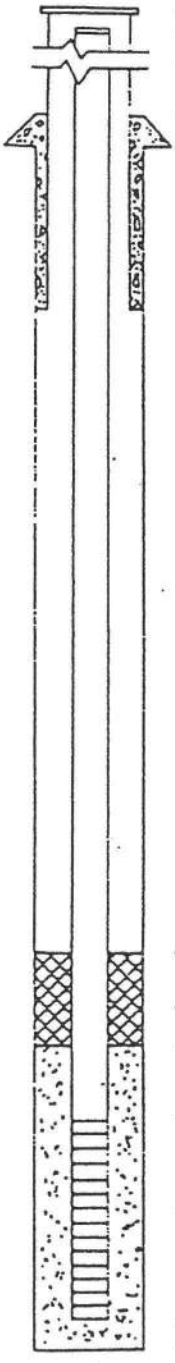
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	304		Sch 40	
Riser pipe above w.t.			Sch 40	
Riser pipe below w.t.	304			
Screen	304			
Coupling joint screen to riser	304			
Protective casing				Steel

Measurements

to .01 ft. (where applicable)

Riser pipe length	56.55 feet
Protective casing length	5.0 feet
Screen length	4.72 feet
Bottom of screen to end cap	0.27 feet
Top of screen to first joint	0.21 feet
Total length of casing	61.75 feet
Screen slot size	0.01 inches
# of openings in screen	
Diameter of borehole (in)	8.0 inches
ID of riser pipe (in)	2.0 inches



Elevations — .01 ft.

555	.83	MSL Top of Protective Casing
555	.63	MSL Top of Riser Pipe
2	.03	ft. Casing Stickup
553	.6	MSL Ground Surface
3	.60	ft. Top of annular sealant
48	.00	ft. Top of Seal
5	.08	ft. Total Seal Interval
53	.08	ft. Top of Sand
54	.61	ft. Top of Screen
4	.72	ft. Total Screen Interval
59	.33	ft. Bottom of Screen
59	.60	ft. Bottom of Borehole

Completed by: Rhonald Haseyanger Surveyed by: CWP Rich Davis Ill. registration # 2098

Illinois Environmental Protection Agency — **Well Completion Report**

Site Number: 1678250020 County: Sangamon

Site Name: City Water Light & Power Landfill Well #: R111

State Plane Coordinate: X E2456708.31 Y N1129507.08 (or) Latitude: ° ' " Longitude: ° ' " Borehole #: R111

Surveyed by: _____ IL Registration #: _____

Drilling Contractor: SKS Engineers, Inc. Driller: D. Baldwin

Consulting Firm: _____ Geologist: N/A

Drilling Method: Hollow Stem Auger Drilling Fluid (Type): None

Logged By: D. Baldwin (SKS Engineers, Inc.) Date Started: 5/26/09 Date Finished: 5/29/09

Report Form Completed By: D. Baldwin Date: 7/2/09

ANNULAR SPACE DETAILS

Type of Surface Seal: Concrete

Type of Annular Sealant: Bentonite

Installation Method: Slurry

Setting Time: _____

Type of Bentonite Seal - - Granular, Pellet, (Slurry) (Choose One)

Installation Method: Tremie

Setting Time: _____

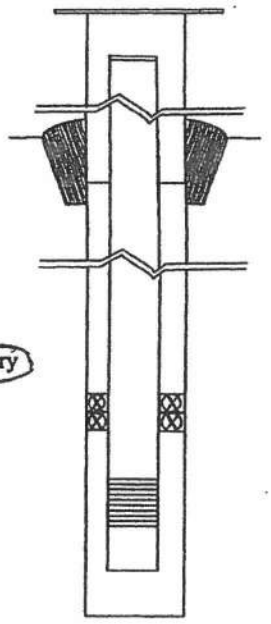
Type of Sand Pack: Quartz Sand

Grain Size: 1020 (Sieve Size)

Installation Method: Free Drop

Type of Backfill Material: _____ (if applicable)

Installation Method: _____



	Elevations (MSL)*	Depths (BGS)	(.01ft.)
	552.69	0.0	Top of Protective Casing
	552.39	.30	Top of Riser Pipe
	552.69	0.0	Ground Surface
	549.69	3.0	Top of Annular Sealant
	____	____	Static Water Level (After Completion)
	549.69	3.0	Top of Seal
	502.59	50.1	Top of Sand Pack
	501.49	51.2	Top of Screen
	495.89	56.8	Bottom of Screen
	495.59	57.1	Bottom of Well
	495.59	57.1	Bottom of Borehole

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or(Other)
Riser Pipe Above W.T.	SS304, SS316, PTFE, (PVC) or Other
Riser Pipe Below W.T.	(SS304) SS316, PTFE, PVC, or Other
Screen	(SS304) SS316, PTFE, PVC, or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	8
ID of Riser Pipe (inches)	2
Protective Casing Length (feet)	Flush Mount
Riser Pipe Length (feet)	51.2
Bottom of Screen to End Cap (feet)	.31
Screen Length (1st slot to last slot) (feet)	4.72
Total Length of Casing (feet)	56.8
Screen Slot Size **	.010

**Hand-Slotted Well Screens are Unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: G-112

Site Name: City Water, Light & Power Grid Coordinate: Northing 4450.9 Easting 2560.6

Drilling Contractor: AE Exploration Corporation Date Drilled Start: July 21, 1993

Driller: A. Weisenhofer Geologist: R. Hasenyager Date Completed: July 23, 1993

Drilling Method: Hollow Stem Auger Drilling Fluids (type): N/A

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Cement/Bentonite

Amount of cement: # of bags 8 lbs. per bag 94

Amount of bentonite: # of bags 1/2 lbs. per bag 50

Type of Bentonite Seal (Granular, Pellet): Bentonite Grout

Amount of bentonite: # of Bags 1/2 lbs. per bag 50

Type of Sand Pack: Quartz Sand (1020)

Source of Sand: Best Sand

Amount of Sand: # of bags 6 lbs. per bag 50

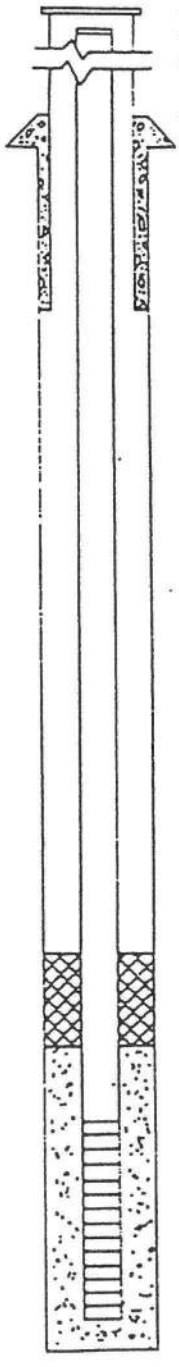
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	304		Sch 40	
Riser pipe above w.t.			Sch 40	
Riser pipe below w.t.	304			
Screen	304			
Coupling joint screen to riser	304			
Protective casing				Steel

Measurements

to .01 ft. (where applicable)

Riser pipe length	54.81 feet
Protective casing length	5.0 feet
Screen length	4.73 feet
Bottom of screen to end cap	0.29 feet
Top of screen to first joint	0.21 feet
Total length of casing	60.04 feet
Screen slot size	0.01 inches
# of openings in screen	
Diameter of borehole (in)	8.0 inches
ID of riser pipe (in)	2.0 inches



Elevations — .01 ft.

555	.06	MSL Top of Protective Casing
554	.88	MSL Top of Riser Pipe
2	.18	ft. Casing Stickup
552	.7	MSL Ground Surface
4	.10	ft. Top of annular sealant
46	.10	ft. Top of Seal
5	.07	ft. Total Seal Interval
51	.17	ft. Top of Sand
52	.78	ft. Top of Screen
4	.73	ft. Total Screen Interval
57	.51	ft. Bottom of Screen
57	.80	ft. Bottom of Borehole

Completed by: Rhonald Hasenyager Surveyed by: CUNP-Rich Davis Ill. registration # 2098

Illinois Environmental Protection Agency — **Well Completion Report**

Site Number: 1678250020 County: Sangamon

Site Name: FGDS Development Landfill Well #: AW-1

State Plane Coordinate: X ____ Y ____ (or) Latitude: ___ ___ ___ Longitude: ___ ___ ___ Borehole #: AW-1

N 4512.2 E 2030.49

Surveyed by: David Mihelsic IL Registration #: 3762

Drilling Contractor: Reynolds Drilling Corp. Driller: Andrew Rachford

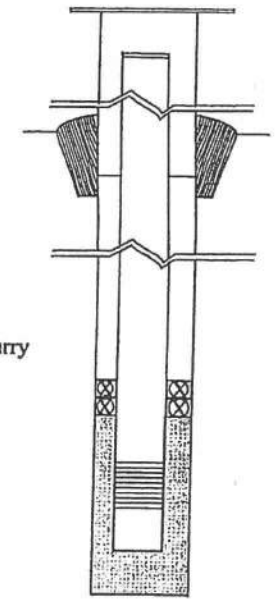
Consulting Firm: Rapps Engineering & Applied Science Geologist: Ken Miller

Drilling Method: HSA Drilling Fluid (Type): NA

Logged By: Ken Miller Date Started: 12/29/08 Date Finished: 12/30/08

Report Form Completed By: Ken Miller Date: 5/18/09

ANNULAR SPACE DETAILS



	Elevations (MSL)*	Depths (BGS)	(.01ft.)
	____	____	Top of Protective Casing
	555.60	-2.75	Top of Riser Pipe
	552.85	0	Ground Surface
	549.85	3.00	Top of Annular Sealant
	____	____	Static Water Level (After Completion)
	513.90	38.95	Top of Seal
	510.90	41.95	Top of Sand Pack
	508.90	43.95	Top of Screen
	498.90	53.95	Bottom of Screen
	498.51	54.34	Bottom of Well
	498.51	54.34	Bottom of Borehole

* Referenced to a National Geodetic Datum

Type of Surface Seal: Cement

Type of Annular Sealant: Bentonite Grout

Installation Method: Tremie

Setting Time: >24 hrs

Type of Bentonite Seal - - Granular, (Pellet), Slurry (Choose One)

Installation Method: Poured

Setting Time: 20 hrs

Type of Sand Pack: Quartz Sand

Grain Size: 50 (Sieve Size)

Installation Method: Poured

Type of Backfill Material: ____ (if applicable)

Installation Method: ____

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or (Other)
Riser Pipe Above W.T.	SS304, SS316, PTFE, (PVC), or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, (PVC), or Other
Screen	SS304, SS316, PTFE, (PVC), or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	8.25
ID of Riser Pipe (inches)	2
Protective Casing Length (feet)	5
Riser Pipe Length (feet)	46.70
Bottom of Screen to End Cap (feet)	0.4
Screen Length (1st slot to last slot) (feet)	10
Total Length of Casing (feet)	57.09
Screen Slot Size **	0.010

**Hand-Slotted Well Screens are Unacceptable

Illinois Environmental Protection Agency — **Well Completion Report**

Site Number: 1678250020 County: Sangamon

Site Name: FGDS Development Landfill Well #: AW-2

State Plane Coordinate: X ____ Y ____ (or) Latitude: ___ ___ ___ Longitude: ___ ___ ___ Borehole #: AW-2

N 5480.91 E 2361.46

Surveyed by: David Mihelsic IL Registration #: 3762

Drilling Contractor: Reynolds Drilling Corp. Driller: Kerry Doetzel

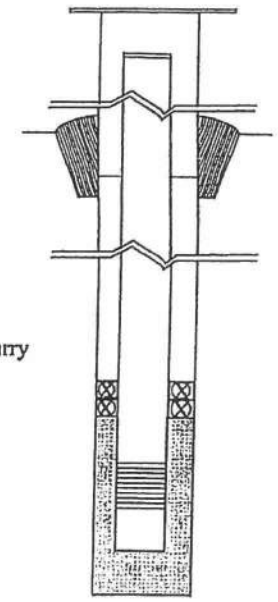
Consulting Firm: Rapps Engineering & Applied Science Geologist: Ken Miller

Drilling Method: HSA Drilling Fluid (Type): NA

Logged By: Ken Miller Date Started: 1/2/09 Date Finished: 1/2/09

Report Form Completed By: Ken Miller Date: 5/18/09

ANNULAR SPACE DETAILS



Type of Surface Seal: Cement

Type of Annular Sealant: Bentonite Chips

Installation Method: Poured

Setting Time: >24 hrs

Type of Bentonite Seal - - Granular, (Pellet), Slurry (Choose One)

Installation Method: Poured

Setting Time: >24 hrs

Type of Sand Pack: Quartz Sand

Grain Size: 50 (Sieve Size)

Installation Method: Poured

Type of Backfill Material: (if applicable)

Installation Method:

	Elevations (MSL)*	Depths (BGS)	(.01ft.)
			Top of Protective Casing
	529.98	-3.30	Top of Riser Pipe
	526.68	0	Ground Surface
	523.68	3.00	Top of Annular Sealant
			Static Water Level (After Completion)
	509.86	16.82	Top of Seal
	506.86	19.82	Top of Sand Pack
	504.86	21.82	Top of Screen
	494.86	31.82	Bottom of Screen
	494.46	32.22	Bottom of Well
	494.46	32.22	Bottom of Borehole

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or (Other)
Riser Pipe Above W.T.	SS304, SS316, PTFE, (PVC), or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, (PVC), or Other
Screen	SS304, SS316, PTFE, (PVC), or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	8.25
ID of Riser Pipe (inches)	2
Protective Casing Length (feet)	5
Riser Pipe Length (feet)	25.12
Bottom of Screen to End Cap (feet)	0.4
Screen Length (1st slot to last slot) (feet)	10
Total Length of Casing (feet)	35.52
Screen Slot Size **	0.010

**Hand-Slotted Well Screens are Unacceptable

Illinois Environmental Protection Agency — **Well Completion Report**

Site Number: 1678250020 County: Sangamon

Site Name: FGDS Development Landfill Well #: AW-3

State Plane Coordinate: X ____ Y ____ (or) Latitude: ___ ___ ___ Longitude: ___ ___ ___ Borehole #: AW-3

Surveyed by: David Mihelsic IL Registration #: 3762

Drilling Contractor: Reynolds Drilling Corp. Driller: Andrew Rachford

Consulting Firm: Rapps Engineering & Applied Science Geologist: Ken Miller

Drilling Method: HSA Drilling Fluid (Type): NA

Logged By: Ken Miller Date Started: 12/30/08 Date Finished: 12/31/08

Report Form Completed By: Ken Miller Date: 5/18/09

ANNULAR SPACE DETAILS

Type of Surface Seal: Cement

Type of Annular Sealant: Bentonite Chips

Installation Method: Poured

Setting Time: >24 hrs

Type of Bentonite Seal -- Granular, Pellet, Slurry (Choose One)

Installation Method: Poured

Setting Time: 16 hrs

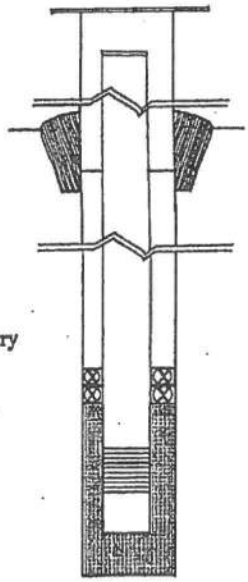
Type of Sand Pack: Quartz Sand

Grain Size: 50 (Sieve Size)

Installation Method: Poured

Type of Backfill Material: (If applicable)

Installation Method:



Elevations (MSL)*	Depths (BGS)	(.01ft.)
____	____	Top of Protective Casing
540.33	-2.58	Top of Riser Pipe
537.75	0	Ground Surface
534.75	3.00	Top of Annular Sealant
____	____	Static Water Level (After Completion)
511.32	26.43	Top of Seal
508.32	29.43	Top of Sand Pack
506.32	31.43	Top of Screen
496.32	41.43	Bottom of Screen
495.92	41.83	Bottom of Well
495.92	41.83	Bottom of Borehole

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Above W.T.	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, PVC, or Other
Screen	SS304, SS316, PTFE, PVC, or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	8.25
ID of Riser Pipe (inches)	2
Protective Casing Length (feet)	5
Riser Pipe Length (feet)	34.01
Bottom of Screen to End Cap (feet)	0.4
Screen Length (1st slot to last slot) (feet)	10
Total Length of Casing (feet)	44.41
Screen Slot Size **	0.010

**Hand-Slotted Well Screens are Unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: G121

Site Name: City Water, Light & Power – FGDS Development Borehole #: B96-1

Coordinates: X 2,481.5 Y 5,615.9 (or) Latitude: ° ' " Longitude: ° ' "

Surveyed by: Richard Davis, City Water, Light & Power IL Registration #: LS-2098

Drilling Contractor: AE Exploration Corp. Consulting Firm: Andrews Environmental Engineering, Inc.

Driller: A. Wiesenhofer Geologist: R. Hasenyager

Drilling Method: Hollow stem auger Logged by: R. Hasenyager

Drilling Fluids (type): n/a Report Form Completed by: R. Hasenyager

Date Well Started: 05/16/96 Date Well Finished: 05/16/96 Date Form Completed: 07/12/96

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: High-solids bentonite

Installation method: Tremi

Setting time: 24+ hours

Type of bentonite seal – *Ganular*, Pellet, Slurry (circle one)

Installation method: Free drop

Setting time: 70 minutes

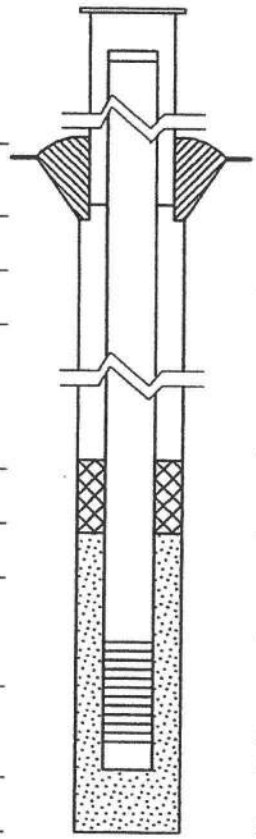
Type of sand pack: Quartz sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
556.04	-2.24	Top of Protective Casing
555.67	-1.87	Top of Riser Pipe
553.80	.00	Ground Surface
552.30	1.50	Top of Annular Sealant
528.55	25.25	Static Water Level Measured on 5/24/96 (after completion)
506.60	47.20	Top of Seal
504.00	49.80	Top of Sandpack
501.93	51.87	Top of Screen
497.96	55.84	Bottom of Screen
496.86	56.94	Bottom of Well
497.10	56.70	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

NOTES:

WELL CONSTRUCTION MATERIALS (circle one)

Protective Casing	SS304, SS316, PTFE, PVC or *Other: Steel*
Riser Pipe Above W.T.	SS304, SS316, PTFE, *PVC* or Other:
Riser Pipe Below W.T.	SS304, SS316, PTFE, *PVC* or Other:
Screen	SS304, SS316, PTFE, *PVC* or Other:

CASING MEASUREMENTS

Diameter of Borehole (in)	8.0
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	53.74
Bottom of Screen to End Cap (ft)	1.10
Screen Length [1st slot to last slot] (ft)	3.97
Total Length of Casing (ft)	58.81
Screen Slot Size¥	#10 (0.01")

¥Hand-slotted well screens are unacceptable.

(AE950315)

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: G122

Site Name: City Water, Light & Power – FGDS Development Borehole #: B96-2

Coordinates: X 2,305.1 Y 5,613.2 (or) Latitude: ° ' " Longitude: ° ' "

Surveyed by: Richard Davis, City Water, Light & Power IL Registration #: LS-2098

Drilling Contractor: AE Exploration Corp. Consulting Firm: Andrews Environmental Engineering, Inc.

Driller: A. Wiesenhofer Geologist: R. Hasenyager

Drilling Method: Hollow stem auger Logged by: R. Hasenyager

Drilling Fluids (type): n/a Report Form Completed by: R. Hasenyager

Date Well Started: 05/20/96 Date Well Finished: 05/20/96 Date Form Completed: 07/12/96

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: High-solids bentonite

Installation method: Tremi

Setting time: 24+ hours

Type of bentonite seal – *Ganular*, Pellet, Slurry (circle one)

Installation method: Free drop

Setting time: 45 minutes

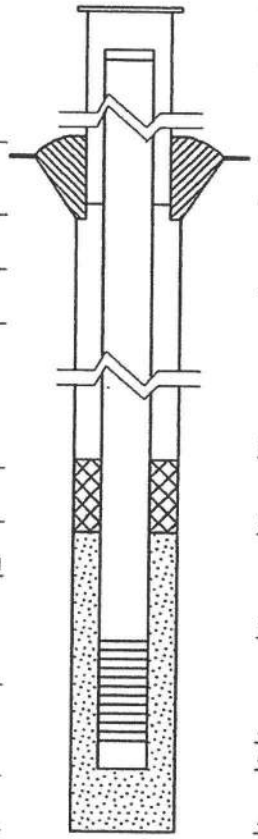
Type of sand pack: Quartz sand/formation sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
554.87	-2.17	Top of Protective Casing
554.44	-1.74	Top of Riser Pipe
552.70	.00	Ground Surface
551.70	1.00	Top of Annular Sealant
526.51	26.19	Static Water Level Measured on 5/24/96 (after completion)
507.20	45.50	Top of Seal
504.90	47.80	Top of Sandpack
501.07	51.63	Top of Screen
497.10	55.60	Bottom of Screen
496.00	56.70	Bottom of Well
494.00	58.70	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (–) values above GS

NOTES:

WELL CONSTRUCTION MATERIALS (circle one)

Protective Casing	SS304, SS316, PTFE, PVC or *Other: Steel*
Riser Pipe Above W.T.	SS304, SS316, PTFE, *PVC* or Other:
Riser Pipe Below W.T.	SS304, SS316, PTFE, *PVC* or Other:
Screen	SS304, SS316, PTFE, *PVC* or Other:

(AE950315)

CASING MEASUREMENTS

Diameter of Borehole (in)	8.0
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	53.37
Bottom of Screen to End Cap (ft)	1.10
Screen Length [1st slot to last slot] (ft)	3.97
Total Length of Casing (ft)	58.44
Screen Slot Size‡	#10 (0.01")

‡Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon Well #: G123

Site Name: City Water, Light & Power – FGDS Development Borehole #: B96-3

Coordinates: X 2,481.5 Y 5,615.9 (or) Latitude: ° ' " Longitude: ° ' "

Surveyed by: Richard Davis, City Water, Light & Power IL Registration #: LS-2098

Drilling Contractor: AE Exploration Corp. Consulting Firm: Andrews Environmental Engineering, Inc.

Driller: A. Wiesenhofer Geologist: Rhonald Hasenyager

Drilling Method: Hollow stem auger Logged by: Rhonald Hasenyager

Drilling Fluids (type): n/a Report Form Completed by: Rhonald Hasenyager

Date Well Started: 05/16/96 Date Well Finished: 05/16/96 Date Form Completed: 07/12/96

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: High-solids bentonite

Installation method: Tremi

Setting time: 24+ hours

Type of bentonite seal – *Ganular*, Pellet, Slurry (circle one)

Installation method: Free drop

Setting time: 30 minutes

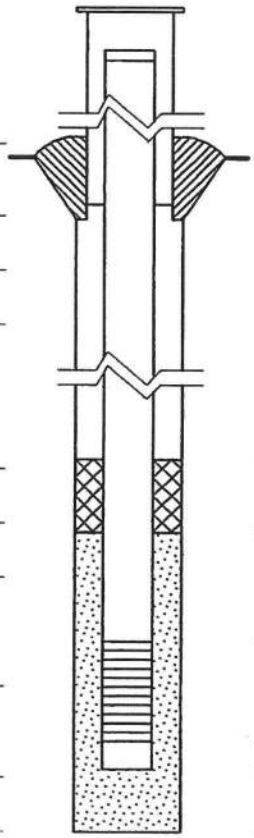
Type of sand pack: Quartz sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: Bentonite chips (if applicable)

Installation method: Free drop



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
554.30	-2.10	Top of Protective Casing
553.90	-1.70	Top of Riser Pipe
552.20	.00	Ground Surface
550.70	1.50	Top of Annular Sealant
526.35	25.85	Static Water Level Measured on 5/24/96 (after completion)
515.40	36.80	Top of Seal
513.70	38.50	Top of Sandpack
511.77	40.43	Top of Screen
507.81	44.39	Bottom of Screen
506.70	45.50	Bottom of Well
495.20	57.00	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

NOTES:

CASING MEASUREMENTS

Diameter of Borehole (in)	8.0
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	42.13
Bottom of Screen to End Cap (ft)	1.11
Screen Length [1st slot to last slot] (ft)	3.96
Total Length of Casing (ft)	47.20
Screen Slot Size‡	#10 (0.01")

‡Hand-slotted well screens are unacceptable.

WELL CONSTRUCTION MATERIALS (circle one)

Protective Casing	SS304, SS316, PTFE, PVC or ***Other: Steel***
Riser Pipe Above W.T.	SS304, SS316, PTFE, ***PVC*** or Other:
Riser Pipe Below W.T.	SS304, SS316, PTFE, ***PVC*** or Other:
Screen	SS304, SS316, PTFE, ***PVC*** or Other:

(AE950315)

APPENDIX B3:

IMPOUNDMENT MONITORING WELL CONSTRUCTION REPORTS

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-1R

Site Name: City Water, Light, & Power Borehole #: AP-1R

Coordinates: X 831.70 Y 5132.40 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: _____ IL Registration #: _____

Drilling Contractor: Terra Drill, Inc. Consulting Firm: Andrews Engineering, Inc.

Driller: J. Brown Geologist: M. Hewitt

Drilling Method: 4¼" HSA w/ 5' Continuous Barrel Logged by: M. Hewitt

Drilling Fluids (type): _____ Report Form Completed by: J. Rhoades

Date Well Started: 1/30/2012 Date Well Finished: 1/30/2012 Date Form Completed: 2/27/2012

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Grout

Installation method: Tremie

Setting time: 2 Hours

Type of bentonite seal: Bentonite Chips

Installation method: Free drop

Setting time: 2 Hours

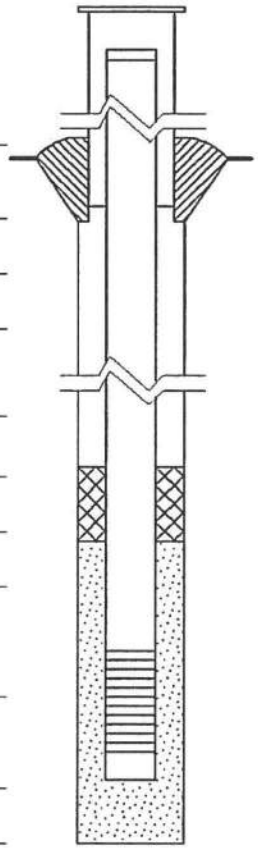
Type of sand pack: Unimin Sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: _____ (if applicable)

Installation method: _____



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
535.60	-2.50	Top of Protective Casing
.00	533.10	Top of Riser Pipe
533.10	.00	Ground Surface
530.10	3.00	Top of Annular Sealant
n/a	n/a	Static Water Level Measured on (after completion)
517.00	16.10	Top of Seal
513.51	19.59	Top of Sandpack
-21.59	554.69	Top of Screen
-30.97	564.07	Bottom of Screen
-31.50	564.60	Bottom of Well
500.60	32.50	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

CASING MEASUREMENTS

Diameter of Borehole (in)	8.0
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	21.59
Bottom of Screen to End Cap (ft)	.53
Screen Length [1st slot to last slot] (ft)	9.38
Total Length of Casing (ft)	31.50
Screen Slot Size‡	0.01"

‡Hand-slotted well screens are unacceptable.

WELL CONSTRUCTION MATERIALS

Protective Casing	SS304, SS316, PTFE, PVC or *Other:Steel*
Riser Pipe Above W.T.	SS304, SS316, PTFE, *PVC*, or Other:
Riser Pipe Below W.T.	SS304, SS316, PTFE, *PVC*, or Other:
Screen	SS304, SS316, PTFE, *PVC*, or Other:

(AE950315)

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-2R

Site Name: City Water, Light, & Power Borehole #: AP-2R

Coordinates: X 725.50 Y 4184.70 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: _____ IL Registration #: _____

Drilling Contractor: Terra Drill, Inc. Consulting Firm: Andrews Engineering, Inc.

Driller: J. Brown Geologist: M. Hewitt

Drilling Method: 4¼" HSA w/ 5' Continuous Barrel Logged by: M. Hewitt

Drilling Fluids (type): _____ Report Form Completed by: J. Rhoades

Date Well Started: 1/31/2012 Date Well Finished: 1/31/2012 Date Form Completed: 2/27/2012

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Grout

Installation method: Tremie

Setting time: 2 Hours

Type of bentonite seal: Bentonite Chips

Installation method: Free drop

Setting time: 2 Hours

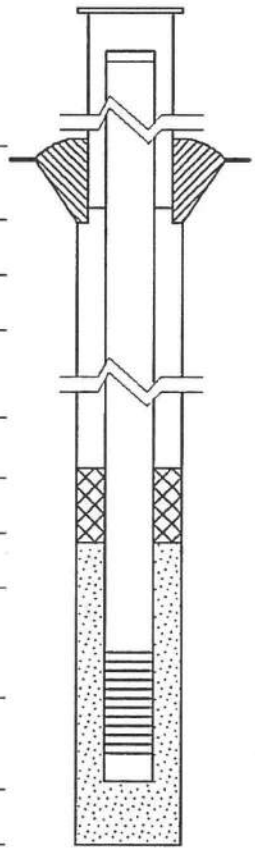
Type of sand pack: Unimin Sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: _____ (if applicable)

Installation method: _____



ELEVATION (MSL)*	DEPTH (BGS)* (0.01 ft)	
535.60	-2.50	Top of Protective Casing
536.1	533.10	Top of Riser Pipe
533.6	.00	Ground Surface
530.10	3.00	Top of Annular Sealant
n/a	n/a	Static Water Level Measured on (after completion)
528.96	4.14	Top of Seal
526.96	6.14	Top of Sandpack
-8.14	541.24	Top of Screen
-17.47	550.57	Bottom of Screen
-18.00	551.10	Bottom of Well
514.60	18.50	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

CASING MEASUREMENTS

Diameter of Borehole (in)	8.0
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	8.14
Bottom of Screen to End Cap (ft)	.53
Screen Length [1st slot to last slot] (ft)	9.33
Total Length of Casing (ft)	18.00
Screen Slot Size[¥]	0.01"

[¥]Hand-slotted well screens are unacceptable.

WELL CONSTRUCTION MATERIALS

Protective Casing	SS304, SS316, PTFE, PVC or *Other:Steel*
Riser Pipe Above W.T.	SS304, SS316, PTFE, *PVC*, or Other:
Riser Pipe Below W.T.	SS304, SS316, PTFE, *PVC*, or Other:
Screen	SS304, SS316, PTFE, *PVC*, or Other:

(AE950315)

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-2A

Site Name: Springfield City Water, Light, and Power Borehole #: _____

Coordinates: X 735.9 Y 4185.2 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Springfield City Water, Light, and Power IL Registration #: _____

Drilling Contractor: Bulldog Drilling, Inc. Consulting Firm: Andrews Engineering, Inc.

Driller: J. Edwards Geologist: C. Myrvold

Drilling Method: AMS Powerprobe w/ 4.25" HSA and 5' MC Logged by: C. Myrvold

Drilling Fluids (type): na Report Form Completed by: C. Myrvold

Date Well Started: 2/16/2016 Date Well Finished: 2/16/2016 Date Form Completed: 3/06/2016

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: N/A

Installation method: _____

Setting time: _____

Type of bentonite seal: Bentonite chips

Installation method: Free drop

Setting time: 24+ hours

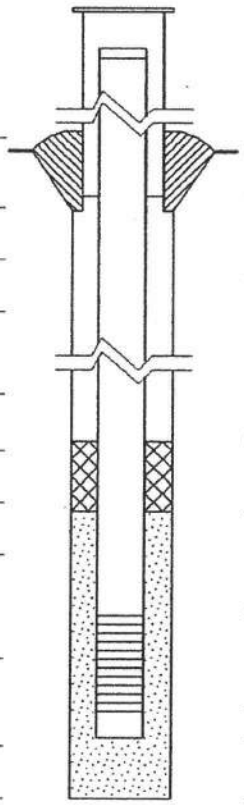
Type of sand pack: Silica sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: N/A (if applicable)

Installation method: _____



ELEVATION (MSL)*	DEPTH (BGS)* (0.01 ft)	
536.50	-2.90	Top of Protective Casing
536.10	-2.50	Top of Riser Pipe
533.60	0.00	Ground Surface
_____	N/A	Top of Annular Sealant
_____	_____	Static Water Level Measured on (after completion)
530.60	3.00	Top of Seal
527.19	6.41	Top of Sandpack
525.19	8.41	Top of Screen
515.54	18.06	Bottom of Screen
515.10	18.50	Bottom of Well
514.60	19.00	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

Notes:

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	10.91
Bottom of Screen to End Cap (ft)	0.44
Screen Length [1st slot to last slot] (ft)	9.65
Total Length of Casing (ft)	21.00
Screen Slot Size‡	#10 (0.01)

‡Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-5

Site Name: City Water, Light, & Power Borehole #: AP-5

Coordinates: X 3203.10 Y 3164.10 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: _____ IL Registration #: _____

Drilling Contractor: Terra Drill, Inc. Consulting Firm: Andrews Engineering, Inc.

Driller: J. Brown Geologist: M. Hewitt

Drilling Method: 4¼" HSA w/ 5' CB & 2' SS Logged by: M. Hewitt

Drilling Fluids (type): _____ Report Form Completed by: J. Rhoades

Date Well Started: 2/1/2012 Date Well Finished: 2/1/2012 Date Form Completed: 2/27/2012

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Grout

Installation method: Tremie

Setting time: 2 Hours

Type of bentonite seal: Bentonite Chips

Installation method: Free drop

Setting time: 2 Hours

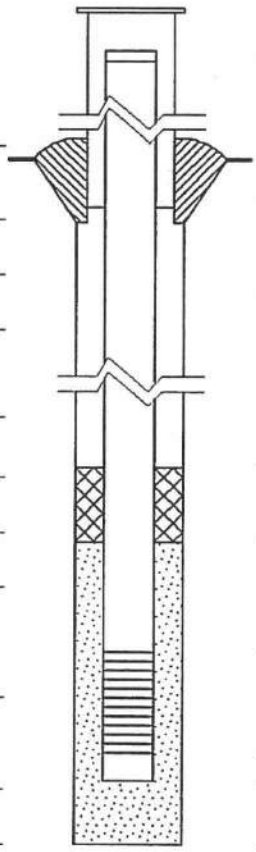
Type of sand pack: Unimin Sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: Bentonite Chips (if applicable)

Installation method: Free drop



ELEVATION (MSL)*	DEPTH (BGS)* (0.01 ft)	
584.30	-2.70	Top of Protective Casing
583.90	-2.30	Top of Riser Pipe
581.60	.00	Ground Surface
578.60	3.00	Top of Annular Sealant
n/a	n/a	Static Water Level Measured on (after completion)
565.48	16.12	Top of Seal
563.48	18.12	Top of Sandpack
563.78	17.82	Top of Screen
554.44	27.16	Bottom of Screen
553.90	27.70	Bottom of Well
551.10	30.50	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

NOTES:

•Borehole AP-5 sampled to 49.0 feet below ground surface (BGS) and backfilled with bentonite chips to 30.5 feet BGS

CASING MEASUREMENTS

Diameter of Borehole (in)	8.0
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	20.12
Bottom of Screen to End Cap (ft)	.54
Screen Length [1st slot to last slot] (ft)	9.34
Total Length of Casing (ft)	30.00
Screen Slot Size‡	0.01"

‡Hand-slotted well screens are unacceptable.

WELL CONSTRUCTION MATERIALS

Protective Casing	SS304, SS316, PTFE, PVC or *Other:Steel*
Riser Pipe Above W.T.	SS304, SS316, PTFE, *PVC*, or Other:
Riser Pipe Below W.T.	SS304, SS316, PTFE, *PVC*, or Other:
Screen	SS304, SS316, PTFE, *PVC*, or Other:

(AE950315)

Illinois Environmental Protection Agency **Well Completion Report**

Site Number: _____ County: Sangamon

Site Name: City Water, Light & Power (CWLP) Ash Ponds Well #: TW3E

State Plane Coordinate: X _____ Y _____ (or) Latitude: ___ ___ ___ Longitude: ___ ___ ___ Borehole #: TW3E

Surveyed by: _____ IL Registration #: _____

Drilling Contractor: Bulldog Drilling, Inc. Driller: J. Gates

Consulting Firm: Andrews Engineering, Inc. Geologist: D. Ghosh

Drilling Method: CME 55 w/ 4.25" HSA Drilling Fluid (Type): none

Logged By: D. Ghosh Date Started: 6/27/17 Date Finished: 6/27/17

Report Form Completed By: M. Hewitt Date: 9/18/17

ANNULAR SPACE DETAILS

Type of Surface Seal: Bentonite Grout

Type of Annular Sealant: Bentonite Grout

Installation Method: Tremi

Setting Time: 24 hours

Type of Bentonite Seal - - Granular, Pellet, Slurry (Choose One)

Installation Method: Free drop

Setting Time: N/A

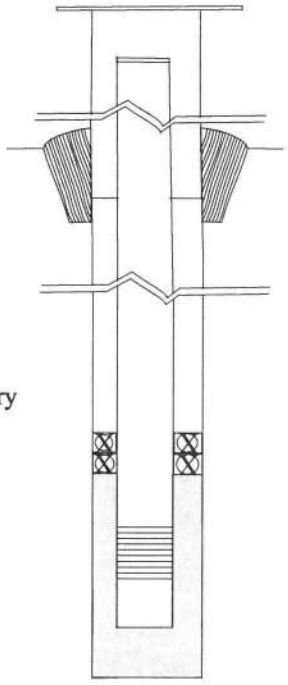
Type of Sand Pack: Silica Sand

Grain Size: 10/20 (Sieve Size)

Installation Method: Free Drop

Type of Backfill Material: None (if applicable)

Installation Method: N/A



Elevations (MSL)*	Depths (BGS)	(.01ft.)
_____	_____	Top of Protective Casing
_____	-2.17	Top of Riser Pipe
_____	0	Ground Surface
_____	0	Top of Annular Sealant
_____	9.14	Static Water Level (After Completion)
_____	28.0	Top of Seal
_____	28.2	Top of Sand Pack
_____	30.22	Top of Screen
_____	39.82	Bottom of Screen
_____	40.5	Bottom of Well
_____	40.5	Bottom of Borehole

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Above W.T.	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, PVC, or Other
Screen	SS304, SS316, PTFE, PVC, or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	8.25
ID of Riser Pipe (inches)	2.049
Protective Casing Length (feet)	
Riser Pipe Length (feet)	32.39
Bottom of Screen to End Cap (feet)	0.68
Screen Length (1st slot to last slot) (feet)	9.6
Total Length of Casing (feet)	42.67
Screen Slot Size **	0.01

**Hand-Slotted Well Screens are Unacceptable

Illinois Environmental Protection Agency **Well Completion Report**

Site Number: _____ County: Sangamon

Site Name: City Water, Light & Power (CWLP) Ash Ponds Well #: TW3N / RW-3

State Plane Coordinate: X _____ Y _____ (or) Latitude: ___ ___ ___ Longitude: ___ ___ ___ Borehole #: TW3N

Surveyed by: _____ IL Registration #: _____

Drilling Contractor: Bulldog Drilling, Inc. Driller: J. Gates

Consulting Firm: Andrews Engineering, Inc. Geologist: D. Ghosh

Drilling Method: CME 55 w/ 4.25" HSA Drilling Fluid (Type): none

Logged By: D. Ghosh Date Started: 6/26/17 Date Finished: 6/27/17

Report Form Completed By: M. Hewitt Date: 9/18/17

ANNULAR SPACE DETAILS

Type of Surface Seal: Bentonite Grout

Type of Annular Sealant: Bentonite Grout

Installation Method: Tremi

Setting Time: 24 hours

Type of Bentonite Seal - - Granular, Pellet, Slurry (Choose One)

Installation Method: Free drop

Setting Time: N/A

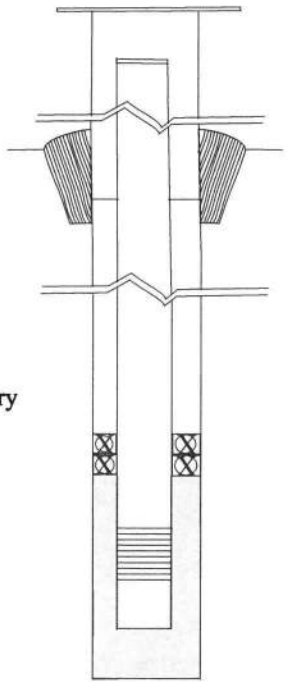
Type of Sand Pack: Silica Sand

Grain Size: 10/20 (Sieve Size)

Installation Method: Free Drop

Type of Backfill Material: None (if applicable)

Installation Method: N/A



Elevations (MSL)*	Depths (BGS)	(.01ft.)
_____	_____	Top of Protective Casing
539.5	-2.5	Top of Riser Pipe
536.8	0	Ground Surface
533.8	3	Top of Annular Sealant
528.09	8.71	Static Water Level (After Completion)
509.8	27	Top of Seal
507.2	29.6	Top of Sand Pack
505.66	31.14	Top of Screen
496.08	40.72	Bottom of Screen
495.4	41.4	Bottom of Well
495.2	41.6	Bottom of Borehole

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Above W.T.	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, PVC, or Other
Screen	SS304, SS316, PTFE, PVC, or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	8.25
ID of Riser Pipe (inches)	2.049
Protective Casing Length (feet)	
Riser Pipe Length (feet)	33.84
Bottom of Screen to End Cap (feet)	0.68
Screen Length (1st slot to last slot) (feet)	9.58
Total Length of Casing (feet)	44.1
Screen Slot Size **	0.01

**Hand-Slotted Well Screens are Unacceptable

Illinois Environmental Protection Agency **Well Completion Report**

Site Number: _____ County: Sangamon

Site Name: City Water, Light & Power (CWLP) Ash Ponds Well #: TW3W

State Plane Coordinate: X _____ Y _____ (or) Latitude: ____ ____ ____ Longitude: ____ ____ ____ Borehole #: TW3W

Surveyed by: _____ IL Registration #: _____

Drilling Contractor: Bulldog Drilling, Inc. Driller: J. Gates

Consulting Firm: Andrews Engineering, Inc. Geologist: D. Ghosh

Drilling Method: CME 55 w/ 4.25" HSA Drilling Fluid (Type): none

Logged By: D. Ghosh Date Started: 6/26/17 Date Finished: 6/26/17

Report Form Completed By: M. Hewitt Date: 9/18/17

ANNULAR SPACE DETAILS

Type of Surface Seal: Bentonite Grout

Type of Annular Sealant: Bentonite Grout

Installation Method: Tremi

Setting Time: 24 hours

Type of Bentonite Seal - - Granular, Pellet, Slurry (Choose One)

Installation Method: Free drop

Setting Time: N/A

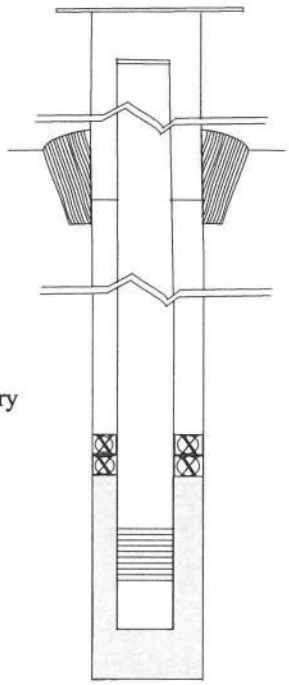
Type of Sand Pack: Silica Sand

Grain Size: 10/20 (Sieve Size)

Installation Method: Free Drop

Type of Backfill Material: None (if applicable)

Installation Method: N/A



Elevations (MSL)*	Depths (BGS)	(.01ft.)
_____	_____	Top of Protective Casing
_____	-2.58	Top of Riser Pipe
536.80	0	Ground Surface
_____	0	Top of Annular Sealant
_____	9.32	Static Water Level (After Completion)
_____	9.6	Top of Seal
_____	11.85	Top of Sand Pack
_____	13.54	Top of Screen
_____	23.12	Bottom of Screen
_____	23.8	Bottom of Well
_____	23.8	Bottom of Borehole

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Above W.T.	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, PVC, or Other
Screen	SS304, SS316, PTFE, PVC, or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	8.25
ID of Riser Pipe (inches)	2.049
Protective Casing Length (feet)	
Riser Pipe Length (feet)	16.12
Bottom of Screen to End Cap (feet)	0.68
Screen Length (1st slot to last slot) (feet)	9.58
Total Length of Casing (feet)	26.38
Screen Slot Size **	0.01

**Hand-Slotted Well Screens are Unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: GP1

Site Name: Springfield CWLP Ash Pond Borehole #: GP1

Coordinates: X _____ Y _____ (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Bulldog drilling Consulting Firm: Andrews Engineering, Inc.

Driller: C. Clines Geologist: B. Kenning

Drilling Method: CME 55cc 4.25 in HSA w/ 5'MC and 2' SS Logged by: B. Kenning

Drilling Fluids (type): N/A Report Form Completed by: B. Kenning

Date Well Started: 6/14/19 Date Well Finished: 6/14/19 Date Form Completed: 7/19/2019

ANNULAR SPACE DETAILS

Type of surface seal: _____

Type of annular sealant: Bentonite Grout

Installation method: Tremie

Setting time: > 24 hours

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

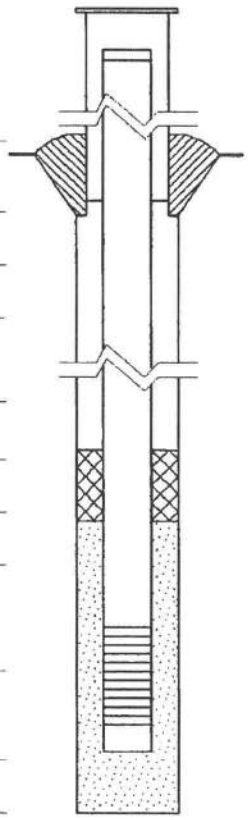
Type of sand pack: Silica Sand Pre-Pack

Grain size: 10/20 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



	ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
Top of Protective Casing			
Top of Riser Pipe	539.44	- 2.82'	
Ground Surface	537.06	0.00'	
Top of Annular Sealant	534.06	3.00'	
Static Water Level Measured on (after completion)			
Top of Seal	511.72	25.34'	
Top of Sandpack	509.72	27.34'	
Top of Screen	507.97	29.34'	
Bottom of Screen	498.27	39.04'	
Bottom of Well	~~497.81~~	39.50'	
Bottom of Borehole	497.06	40.00'	

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negative (-) values above GS

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	#2
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	31.91
Bottom of Screen to End Cap (ft)	0.46
Screen Length (1st slot to last slot) (ft)	9.70
Total Length of Casing (ft)	N/A
Screen Slot Size‡	#10 (0.01)

‡Hand-slotted well screens are unacceptable.

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: GP2 /AP-7

Site Name: Springfield CWLP Ash Pond Borehole #: GP2

Coordinates: X _____ Y _____ (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Bulldog drilling Consulting Firm: Andrews Engineering, Inc.

Driller: C. Clines Geologist: B. Kenning

Drilling Method: CME 55cc 4.25 in HSA w/ 5'MC Logged by: B. Kenning

Drilling Fluids (type): N/A Report Form Completed by: B. Kenning

Date Well Started: 6/14/19 Date Well Finished: 6/14/19 Date Form Completed: 7/19/2019

ANNULAR SPACE DETAILS

Type of surface seal: _____

Type of annular sealant: Bentonite Grout

Installation method: Tremie

Setting time: > 24 hours

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

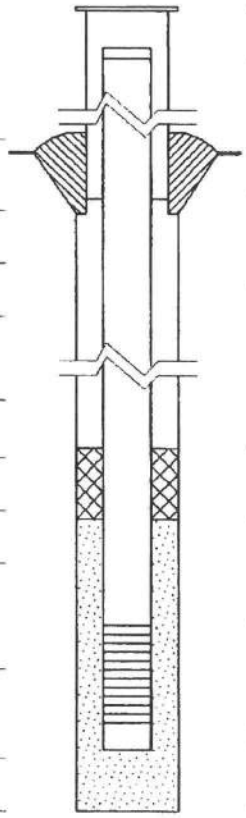
Type of sand pack: Silica Sand Pre-Pack

Grain size: 10/20 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



	ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
Top of Protective Casing	_____	_____	
Top of Riser Pipe	539.02	-2.66	
Ground Surface	536.36	0.00'	
Top of Annular Sealant	533.36	3.00'	
Static Water Level Measured on (after completion)	_____	_____	
Top of Seal	511.02	24.9'	
Top of Sandpack	509.02	24.9'	
Top of Screen	507.46	28.9'	
Bottom of Screen	497.76	38.6'	
Bottom of Well	497.3	39.06'	
Bottom of Borehole	496.36	40.00'	

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	#2
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	31.56
Bottom of Screen to End Cap (ft)	0.46
Screen Length [1st slot to last slot] (ft)	9.70
Total Length of Casing (ft)	N/A
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: GP3

Site Name: Springfield CWLP Ash Pond Borehole #: GP3

Coordinates: X _____ Y _____ (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Bulldog drilling Consulting Firm: Andrews Engineering, Inc.

Driller: C. Clines Geologist: B. Kenning

Drilling Method: CME 55cc 4.25 in HSA w/ 5'MC Logged by: B. Kenning

Drilling Fluids (type): N/A Report Form Completed by: B. Kenning

Date Well Started: 6/13/19 Date Well Finished: 6/13/19 Date Form Completed: 7/19/2019

ANNULAR SPACE DETAILS

Type of surface seal: _____

Type of annular sealant: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

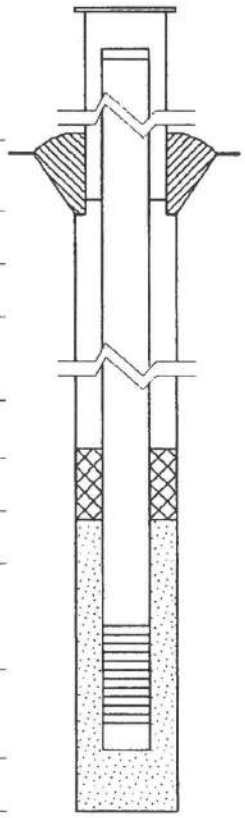
Type of sand pack: Silica Sand Pre-Pack

Grain size: 10/20 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



	ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
Top of Protective Casing	_____	_____	
Top of Riser Pipe	551.82	-2.7	
Ground Surface	549.12	0.00'	
Top of Annular Sealant	546.12	3.00'	
Static Water Level Measured on (after completion)	_____	_____	
Top of Seal	549.12	3.00'	
Top of Sandpack	532.05	17.07'	
Top of Screen	531.49	17.63	
Bottom of Screen	526.81	22.31	
Bottom of Well	526.26	22.86	
Bottom of Borehole	524.32	24.80'	

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	#2
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	20.33
Bottom of Screen to End Cap (ft)	0.55
Screen Length (1st slot to last slot) (ft)	4.68
Total Length of Casing (ft)	N/A
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: GP4

Site Name: Springfield CWLP Ash Pond Borehole #: GP4

Coordinates: X _____ Y _____ (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Bulldog drilling Consulting Firm: Andrews Engineering, Inc.

Driller: J. Edwards Geologist: C. Myrvold

Drilling Method: CME 55cc 4.25 in HSA w/ 5'MC Logged by: C.Myrvold

Drilling Fluids (type): N/A Report Form Completed by: B. Kenning

Date Well Started: 5/17/19 Date Well Finished: 5/17/19 Date Form Completed: 7/19/2019

ANNULAR SPACE DETAILS

Type of surface seal: _____

Type of annular sealant: Bentonite Grout

Installation method: Tremie

Setting time: > 24 hours

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

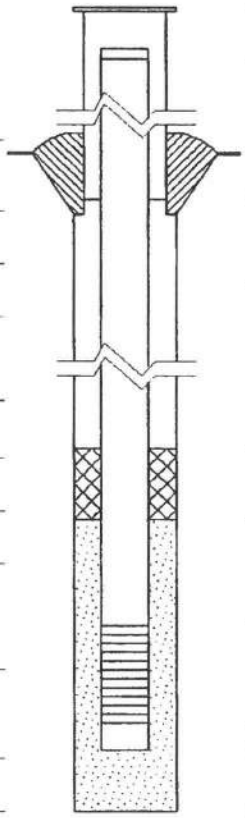
Type of sand pack: Silica Sand Pre-Pack

Grain size: 10/20 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



	ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
Top of Protective Casing			
Top of Riser Pipe		- 3.00'	
Ground Surface		0.00'	
Top of Annular Sealant		3.00'	
Static Water Level Measured on (after completion)			
Top of Seal		23.43'	
Top of Sandpack		25.43'	
Top of Screen		27.43'	
Bottom of Screen		37.20'	
Bottom of Well		37.50'	
Bottom of Borehole		38.00'	

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	#2
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	30.18
Bottom of Screen to End Cap (ft)	0.30
Screen Length [1st slot to last slot] (ft)	9.77
Total Length of Casing (ft)	N/A
Screen Slot Size‡	#10 (0.01)

‡Hand-slotted well screens are unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: GP6 /AP-6

Site Name: Springfield CWLP Ash Pond Borehole #: GP6

Coordinates: X _____ Y _____ (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Bulldog drilling Consulting Firm: Andrews Engineering, Inc.

Driller: J. Edwards Geologist: C. Myrvold

Drilling Method: CME 55cc 4.25 in HSA w/ 5'MC Logged by: C.Myrvold

Drilling Fluids (type): N/A Report Form Completed by: B. Kenning

Date Well Started: 5/17/19 Date Well Finished: 5/17/19 Date Form Completed: 7/19/2019

ANNULAR SPACE DETAILS

Type of surface seal: _____

Type of annular sealant: Bentonite Grout

Installation method: Tremie

Setting time: > 24 hours

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

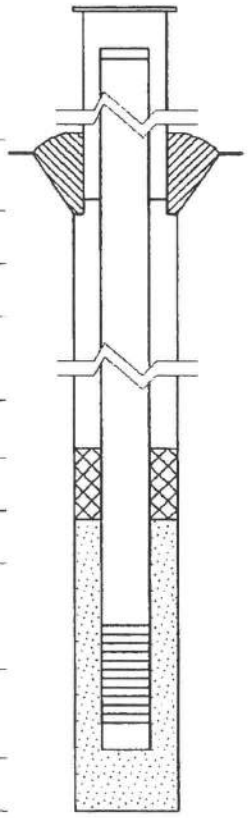
Type of sand pack: Silica Sand Pre-Pack

Grain size: 10/20 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



	ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
Top of Protective Casing	_____	_____	
Top of Riser Pipe	537.82	-2.42	
Ground Surface	535.4	0.00'	
Top of Annular Sealant	532.4	3.00'	
Static Water Level Measured on (after completion)	_____	_____	
Top of Seal	512.97	22.43'	
Top of Sandpack	510.97	24.43'	
Top of Screen	508.64	26.76'	
Bottom of Screen	498.87	36.53'	
Bottom of Well	498.57	36.83'	
Bottom of Borehole	498.4	37.00'	

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	#2
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	29.18
Bottom of Screen to End Cap (ft)	0.30
Screen Length (1st slot to last slot) (ft)	9.77
Total Length of Casing (ft)	N/A
Screen Slot Size‡	#10 (0.01)

‡Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: GP7

Site Name: Springfield CWLP Ash Pond Borehole #: GP7

Coordinates: X _____ Y _____ (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Bulldog drilling Consulting Firm: Andrews Engineering, Inc.

Driller: J. Edwards Geologist: C. Myrvold

Drilling Method: CME 55cc 4.25 in HSA w/ 5'MC Logged by: C.Myrvold

Drilling Fluids (type): N/A Report Form Completed by: B. Kenning

Date Well Started: 5/16/2019 Date Well Finished: 5/16/2019 Date Form Completed: 7/19/2019

ANNULAR SPACE DETAILS

Type of surface seal: _____

Type of annular sealant: Bentonite Grout

Installation method: Tremie

Setting time: > 24 hours

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

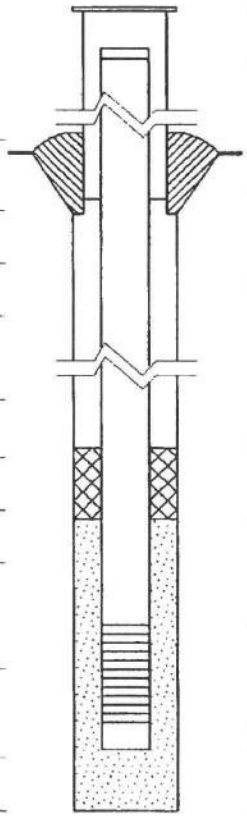
Type of sand pack: Silica Sand Pre-Pack

Grain size: 10/20 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



	ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
Top of Protective Casing			
Top of Riser Pipe		-3.08'	
Ground Surface		0.00'	
Top of Annular Sealant		3.00'	
Static Water Level Measured on (after completion)			
Top of Seal		21.93'	
Top of Sandpack		23.93'	
Top of Screen		25.93'	
Bottom of Screen		35.70'	
Bottom of Well		36.00'	
Bottom of Borehole		36.50'	

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	#2
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	28.76
Bottom of Screen to End Cap (ft)	0.30
Screen Length (1st slot to last slot) (ft)	9.77
Total Length of Casing (ft)	N/A
Screen Slot Size¥	#10 (0.01)

¥Hand-slotted well screens are unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: GP8

Site Name: Springfield CWLP Ash Pond Borehole #: GP8

Coordinates: X _____ Y _____ (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Bulldog drilling Consulting Firm: Andrews Engineering, Inc.

Driller: J. Edwards Geologist: C. Myrvold

Drilling Method: CME 55cc 4.25 in HSA w/ 5'MC Logged by: C.Myrvold

Drilling Fluids (type): N/A Report Form Completed by: B. Kenning

Date Well Started: 5/15/19 Date Well Finished: 5/16/19 Date Form Completed: 7/19/2019

ANNULAR SPACE DETAILS

Type of surface seal: _____

Type of annular sealant: Bentonite Grout

Installation method: Tremie

Setting time: > 24 hours

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

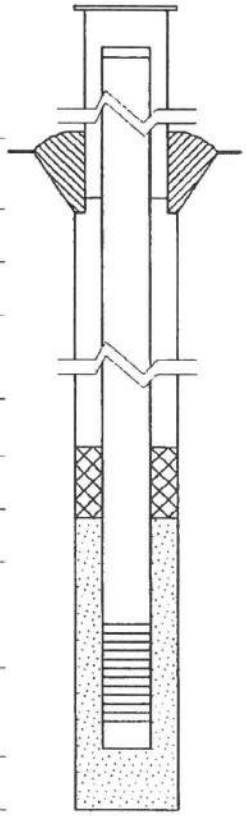
Type of sand pack: Silica Sand Pre-Pack

Grain size: 10/20 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



	ELEVATION (MSL)*	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing	_____	_____
Top of Riser Pipe	533.12	3.00'
Ground Surface	530.08	0.00'
Top of Annular Sealant	_____	3.00'
Static Water Level Measured on (after completion)	_____	_____
Top of Seal	_____	27.43'
Top of Sandpack	_____	29.43'
Top of Screen	_____	31.43'
Bottom of Screen	_____	41.20'
Bottom of Well	_____	41.50'
Bottom of Borehole	_____	42.00'

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.50
ID of Riser Pipe (in)	#2
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	34.18
Bottom of Screen to End Cap (ft)	0.30
Screen Length (1st slot to last slot) (ft)	9.77
Total Length of Casing (ft)	N/A
Screen Slot Size‡	#10 (0.01)

‡Hand-slotted well screens are unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-8

Site Name: Springfield CWLP Ash Pond Borehole #: W-9

Coordinates: X 1265.0 Y 3401.7 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Total Drilling Services/Skinner LTD. Consulting Firm: Andrews Engineering, Inc.

Driller: Todd Skinner Geologist: C. M. Latham

Drilling Method: CME 850 4.25 in HSA w/ 5'MC and 2' SS Logged by: C.M.Latham

Drilling Fluids (type): N/A Report Form Completed by: C.M. Latham

Date Well Started: 2/25/2021 Date Well Finished: 2/25/2021 Date Form Completed: 3/2/2021

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Chips

Installation method: Free Drop

Setting time: > 24

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

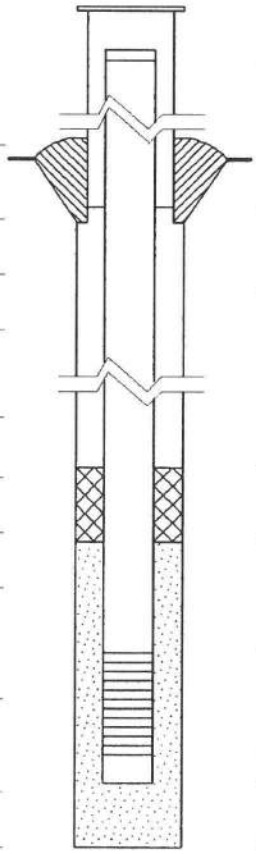
Type of sand pack: Silica Sand Pre-Pack

Grain size: 20/40 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



ELEVATION (MSL)*	DEPTH (BGS)* (0.01 ft)	
540.30	-3.10	Top of Protective Casing
540.30	-3.10	Top of Riser Pipe
537.20	0.00	Ground Surface
534.20	3.00	Top of Annular Sealant
530.20	7.00	Static Water Level Measured on (after completion)
_____	3.00	Top of Seal
510.60	26.60	Top of Sandpack
508.60	28.60	Top of Screen
498.02	39.18	Bottom of Screen
497.60	39.60	Bottom of Well
497.60	39.60	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	29.48'
Bottom of Screen to End Cap (ft)	0.42
Screen Length [1st slot to last slot] (ft)	9.70
Total Length of Casing (ft)	N/A
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-9

Site Name: Springfield CWLP Ash Pond Borehole #: W-8

Coordinates: X 703.0 Y 5216.8 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Total Drilling Services/Skinner LTD. Consulting Firm: Andrews Engineering, Inc.

Driller: Todd Skinner Geologist: C. M. Latham

Drilling Method: CME 850 4.25 in HSA w/ 5'MC and 2' SS Logged by: C.M. Latham

Drilling Fluids (type): N/A Report Form Completed by: C.M. Latham

Date Well Started: 2/26/2021 Date Well Finished: 2/26/2021 Date Form Completed: 3/2/2021

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Chips

Installation method: Free Drop

Setting time: > 24

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

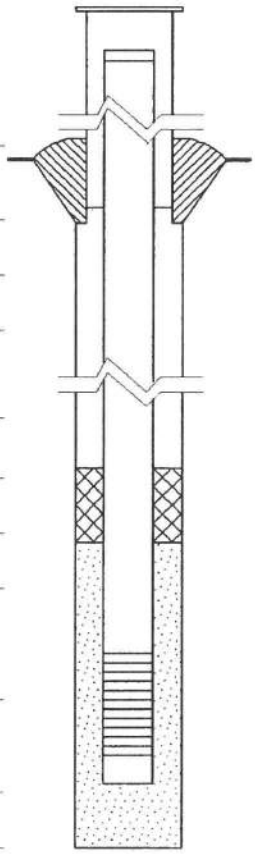
Type of sand pack: Silica Sand Pre-Pack

Grain size: 20/40 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
537.20	-2.90	Top of Protective Casing
537.20	-2.90	Top of Riser Pipe
534.30	0.00	Ground Surface
531.30	3.00	Top of Annular Sealant
525.00	9.30	Static Water Level Measured on (after completion)
_____	3.00	Top of Seal
514.00	20.30	Top of Sandpack
512.00	22.30	Top of Screen
502.24	32.06	Bottom of Screen
501.80	32.50	Bottom of Well
501.80	32.50	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	24.91
Bottom of Screen to End Cap (ft)	0.44
Screen Length [1st slot to last slot] (ft)	9.76
Total Length of Casing (ft)	N/A
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-10

Site Name: Springfield CWLP Ash Pond Borehole #: W-5

Coordinates: X 695.6 Y 4684.0 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Total Drilling Services/Skinner LTD. Consulting Firm: Andrews Engineering, Inc.

Driller: Todd Skinner Geologist: C. M. Latham

Drilling Method: CME 850 4.25 in HSA w/ 5'MC and 2' SS Logged by: C.M. Latham

Drilling Fluids (type): N/A Report Form Completed by: C.M. Latham

Date Well Started: 2/24/2021 Date Well Finished: 2/24/2021 Date Form Completed: 3/2/2021

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Chips

Installation method: Free Drop

Setting time: > 24

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

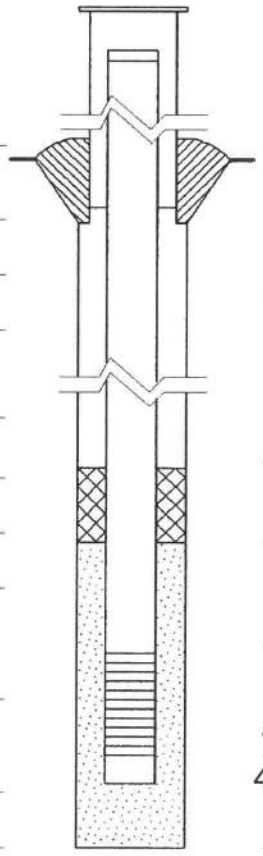
Type of sand pack: Silica Sand Pre-Pack

Grain size: 20/40 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
537.50	-3.10	Top of Protective Casing
537.50	-3.10	Top of Riser Pipe
534.40	0.00	Ground Surface
531.40	3.00	Top of Annular Sealant
528.38	6.02	Static Water Level Measured on (after completion)
531.4	3.00	Top of Seal
511.80	22.60	Top of Sandpack
509.70	24.70	Top of Screen
499.9	34.41	Bottom of Screen
499.53	34.87	Bottom of Well
499.43	34.97	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	27.8
Bottom of Screen to End Cap (ft)	0.46
Screen Length [1st slot to last slot] (ft)	9.71
Total Length of Casing (ft)	N/A
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-11

Site Name: Springfield CWLP Ash Pond Borehole #: W-4

Coordinates: X 524.5 Y 4150.6 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Total Drilling Services/Skinner LTD Consulting Firm: Andrews Engineering, Inc.

Driller: Todd Skinner Geologist: S Kangas

Drilling Method: CME 850 4.25 in HSA w/ 5'MC and 2' SS Logged by: S Kangas

Drilling Fluids (type): N/A Report Form Completed by: S Kangas

Date Well Started: 2/23/2021 Date Well Finished: 2/23/2021 Date Form Completed: 3/2/2021

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Chips

Installation method: Free Drop

Setting time: >24

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

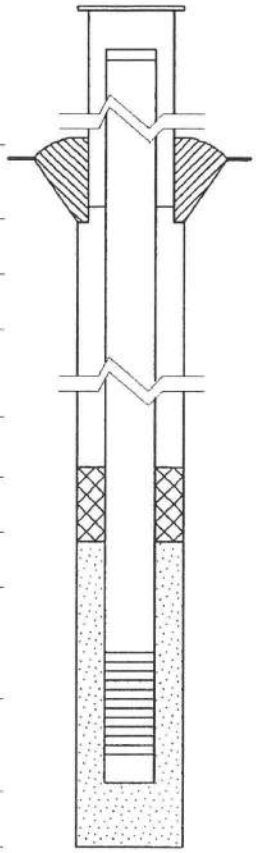
Type of sand pack: Silica Sand Pre-Pack

Grain size: 20/40 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
538.10	-2.80	Top of Protective Casing
538.10	-2.80	Top of Riser Pipe
535.30	0.00	Ground Surface
531.80	3.50	Top of Annular Sealant
_____	_____	Static Water Level Measured on (after completion)
531.80	3.50	Top of Seal
527.60	7.70	Top of Sandpack
525.28	10.02	Top of Screen
515.58	19.72	Bottom of Screen
515.15	20.15	Bottom of Well
515.15	20.15	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	#2
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	12.82
Bottom of Screen to End Cap (ft)	0.43
Screen Length [1st slot to last slot] (ft)	9.70
Total Length of Casing (ft)	N/A
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-12

Site Name: Springfield CWLP Ash Pond Borehole #: W-3

Coordinates: X 667.6 Y 3797.7 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Total Drilling Services/Skinner LTD. Consulting Firm: Andrews Engineering, Inc.

Driller: Todd Skinner Geologist: C. M. Latham

Drilling Method: CME 850 4.25 in HSA w/ 5'MC and 2' SS Logged by: Scott Krangus

Drilling Fluids (type): N/A Report Form Completed by: C.M. Latham

Date Well Started: 2/23/2021 Date Well Finished: 2/24/2021 Date Form Completed: 3/2/2021

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Chips

Installation method: Free Drop

Setting time: > 24

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

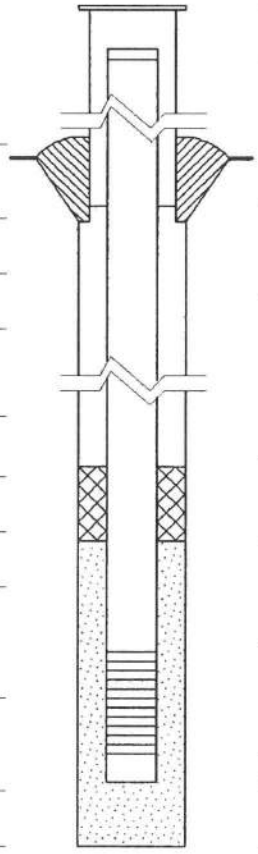
Type of sand pack: Silica Sand Pre-Pack

Grain size: 20/40 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
540.70	-2.90	Top of Protective Casing
540.60	-2.80	Top of Riser Pipe
537.80	0.00	Ground Surface
534.80	3.00	Top of Annular Sealant
_____	_____	Static Water Level Measured on (after completion)
_____	3.00	Top of Seal
522.80	15.00	Top of Sandpack
520.80	17.00	Top of Screen
510.88	26.92	Bottom of Screen
510.30	27.50	Bottom of Well
510.50	27.30	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	24.94
Bottom of Screen to End Cap (ft)	0.38
Screen Length [1st slot to last slot] (ft)	9.70
Total Length of Casing (ft)	N/A
Screen Slot Size*	#10 (0.01)

* Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-13

Site Name: Springfield CWLP Ash Pond Borehole #: W-2

Coordinates: X 852.1 Y 3451.2 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Total Drilling Services/Skinner LTD. Consulting Firm: Andrews Engineering, Inc.

Driller: Todd Skinner Geologist: C. M. Latham

Drilling Method: CME 850 4.25 in HSA w/ 5'MC and 2' SS Logged by: C.M. Latham

Drilling Fluids (type): N/A Report Form Completed by: C.M. Latham

Date Well Started: 2/24/2021 Date Well Finished: 2/24/2021 Date Form Completed: 3/2/2021

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Chips

Installation method: Free Drop

Setting time: > 24

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

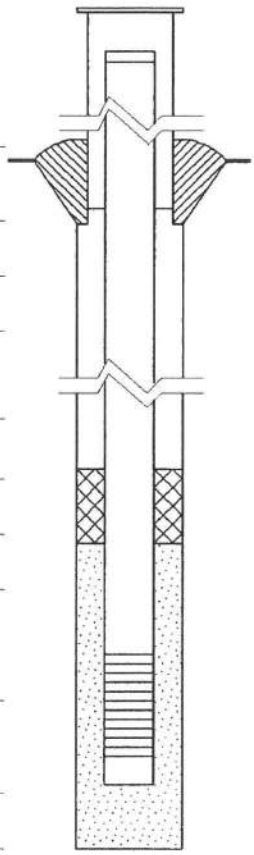
Type of sand pack: Silica Sand Pre-Pack

Grain size: 20/40 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
542.00	-3.40	Top of Protective Casing
542.00	-3.40	Top of Riser Pipe
538.60	0.00	Ground Surface
355.60	3.00	Top of Annular Sealant
532.35	6.25	Static Water Level Measured on (after completion)
_____	3.00	Top of Seal
524.08	14.52	Top of Sandpack
522.08	16.52	Top of Screen
511.47	27.13	Bottom of Screen
511.00	27.60	Bottom of Well
511.00	27.60	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	19.94'
Bottom of Screen to End Cap (ft)	0.47'
Screen Length [1st slot to last slot] (ft)	9.70
Total Length of Casing (ft)	N/A
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: AP-14

Site Name: Springfield CWLP Ash Pond Borehole #: W-1

Coordinates: X 1275.2 Y 3171.5 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Total Drilling Services/Skinner LTD. Consulting Firm: Andrews Engineering, Inc.

Driller: Todd Skinner Geologist: C. M. Latham

Drilling Method: CME 850 4.25 in HSA w/ 5'MC and 2' SS Logged by: C.M. Latham

Drilling Fluids (type): N/A Report Form Completed by: C.M. Latham

Date Well Started: 2/25/2021 Date Well Finished: 2/26/2021 Date Form Completed: 3/2/2021

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Chips

Installation method: Free Drop

Setting time: > 24

Type of bentonite seal: Bentonite Chips

Installation method: Free Drop

Setting time: > 24 hours

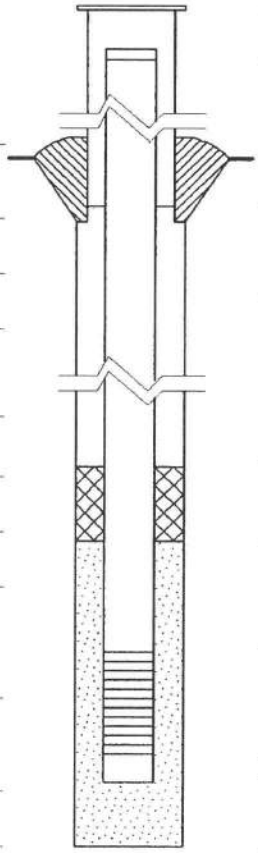
Type of sand pack: Silica Sand Pre-Pack

Grain size: 20/40 (sieve size)

Installation method: Free Drop

Type of backfill material: N/A (if applicable)

Installation method: _____



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
539.60	-2.80	Top of Protective Casing
539.60	-2.80	Top of Riser Pipe
536.80	0.00	Ground Surface
533.80	3.00	Top of Annular Sealant
534.80	2.00	Static Water Level Measured on (after completion)
_____	3.00	Top of Seal
521.45	15.35	Top of Sandpack
519.45	17.35	Top of Screen
509.75	27.05	Bottom of Screen
509.30	27.50	Bottom of Well
509.30	27.50	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	N/A
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	
Protective Casing Length (ft)	N/A
Riser Pipe Length (ft)	20.15
Bottom of Screen to End Cap (ft)	0.45
Screen Length [1st slot to last slot] (ft)	9.70
Total Length of Casing (ft)	N/A
Screen Slot Size¥	#10 (0.01)

¥Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: T1

Site Name: CWLP Borehole #: B1

Coordinates: X 1128150.33 Y 2455538.81 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: Lisa Mauntel

Date Well Started: 05/01/2024 Date Well Finished: 05/01/2024 Date Form Completed: 06/06/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite chips

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

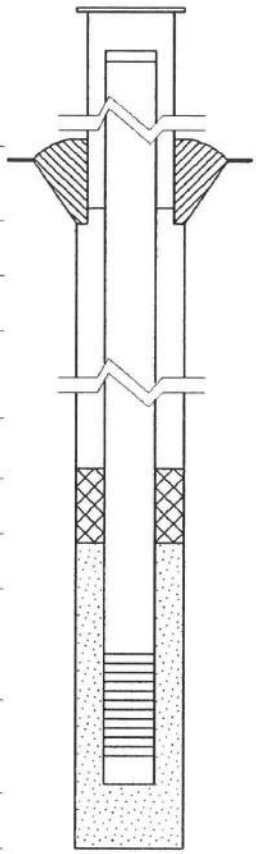
Type of sand pack: Quartz sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
536.10	-2.45	Top of Protective Casing
535.65	-2.00	Top of Riser Pipe
533.65	0	Ground Surface
531.83	3.50	Top of Annular Sealant
	NA	Static Water Level Measured on (after completion)
529.83	5.50	Top of Seal
527.29	8.04	Top of Sandpack
525.77	9.56	Top of Screen
516.27	19.06	Bottom of Screen
515.83	19.50	Bottom of Well
515.83	19.50	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	9.88
Bottom of Screen to End Cap (ft)	0.44
Screen Length [1st slot to last slot] (ft)	9.50
Total Length of Casing (ft)	19.82
Screen Slot Size*	#10 (0.01')

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: T2

Site Name: CWLP Borehole #: B2

Coordinates: X 1128803.76 Y 2455006.85 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: Lisa Mauntel

Date Well Started: 05/01/2024 Date Well Finished: 05/01/2024 Date Form Completed: 06/06/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

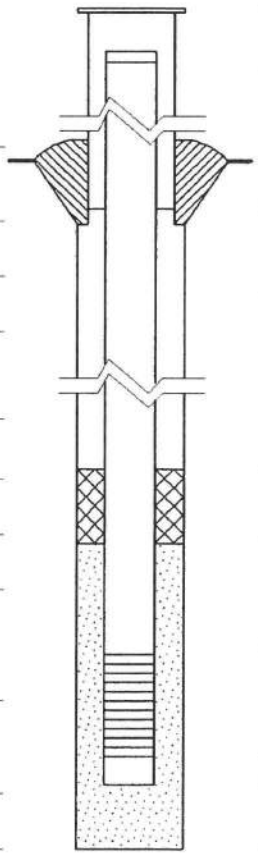
Type of sand pack: Quartz sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
549.86	-2.64	Top of Protective Casing
549.62	-2.4	Top of Riser Pipe
547.22	0	Ground Surface
544.22	3.00	Top of Annular Sealant
_____	NA	Static Water Level Measured on (after completion)
526.12	21.10	Top of Seal
524.02	23.20	Top of Sandpack
522.46	24.76	Top of Screen
512.96	34.26	Bottom of Screen
512.22	35.00	Bottom of Well
512.22	35.00	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	27.16
Bottom of Screen to End Cap (ft)	0.44
Screen Length [1st slot to last slot] (ft)	9.50
Total Length of Casing (ft)	37.40
Screen Slot Size¥	#10 (0.01')

¥Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: T4

Site Name: CWLP Borehole #: B4

Coordinates: X 1130726.70 Y 2455622.14 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: Lisa Mauntel

Date Well Started: 04/26/2024 Date Well Finished: 04/26/2024 Date Form Completed: 06/06/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

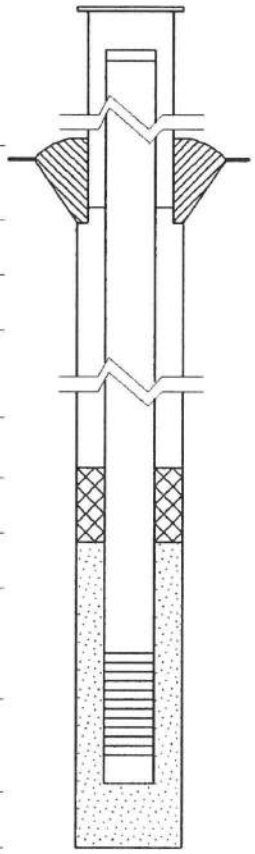
Type of sand pack: Quartz sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
549.43	-2.87	Top of Protective Casing
548.94	-2.38	Top of Riser Pipe
546.56	0	Ground Surface
543.56	3.00	Top of Annular Sealant
	NA	Static Water Level Measured on (after completion)
534.76	11.80	Top of Seal
532.66	13.90	Top of Sandpack
531.43	15.13	Top of Screen
521.94	24.62	Bottom of Screen
521.56	25.00	Bottom of Well
521.56	25.00	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	17.51
Bottom of Screen to End Cap (ft)	0.44
Screen Length [1st slot to last slot] (ft)	9.49
Total Length of Casing (ft)	27.38
Screen Slot Size¥	#10 (0.01')

¥Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: T5

Site Name: CWLP Borehole #: B5

Coordinates: X 1130996.32 Y 2455852.04 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: Lisa Mauntel

Date Well Started: 04/25/2024 Date Well Finished: 04/25/2024 Date Form Completed: 06/06/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

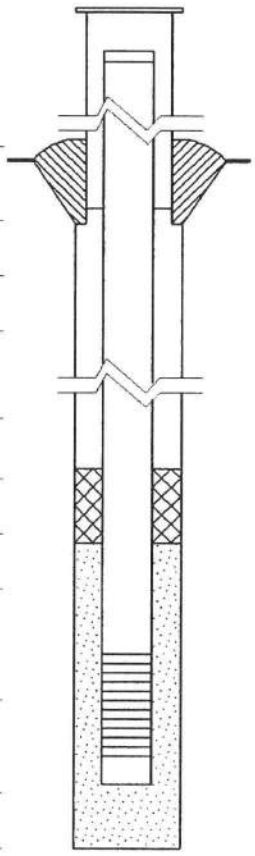
Type of sand pack: Quartz sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
541.00	-2.85	Top of Protective Casing
540.66	-2.51	Top of Riser Pipe
538.15	0	Ground Surface
535.15	3.00	Top of Annular Sealant
_____	NA	Static Water Level Measured on (after completion)
531.55	6.60	Top of Seal
529.35	8.80	Top of Sandpack
528.22	9.93	Top of Screen
518.72	19.43	Bottom of Screen
518.29	19.86	Bottom of Well
518.29	19.86	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	12.44
Bottom of Screen to End Cap (ft)	0.43
Screen Length [1st slot to last slot] (ft)	9.50
Total Length of Casing (ft)	22.37
Screen Slot Size¥	#10 (0.01')

¥Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: T6

Site Name: CWLP Borehole #: B6

Coordinates: X 1131175.15 Y 2456259.47 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: Lisa Mauntel

Date Well Started: 04/25/2024 Date Well Finished: 04/25/2024 Date Form Completed: 06/06/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

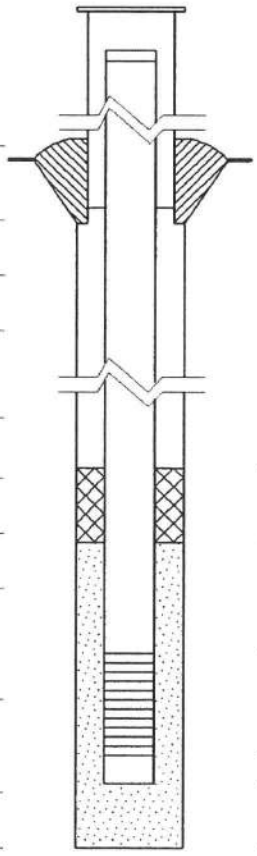
Type of sand pack: Quartz sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



	ELEVATION (MSL)*	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing	_____	_____
Top of Riser Pipe	538.32	-2.36
Ground Surface	535.96	0
Top of Annular Sealant	532.96	3.00
Static Water Level Measured on (after completion)	_____	NA
Top of Seal	507.96	28.00
Top of Sandpack	505.76	30.20
Top of Screen	503.92	32.04
Bottom of Screen	494.20	41.76
Bottom of Well	493.85	42.11
Bottom of Borehole	493.85	42.11

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Anodized Aluminum
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	32.85
Bottom of Screen to End Cap (ft)	0.35
Screen Length [1st slot to last slot] (ft)	9.72
Total Length of Casing (ft)	42.92
Screen Slot Size‡	#10 (0.01")

‡Hand-slotted well screens are unacceptable.

APPENDIX B4:
CCR IMPOUNDMENT WELL CONSTRUCTION REPORTS

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: D1

Site Name: CWLP Borehole #: D1

Coordinates: X 1129774.64 Y 2455460.38 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: S. Van Hook

Date Well Started: 04/29/2024 Date Well Finished: 04/29/2024 Date Form Completed: 04/29/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

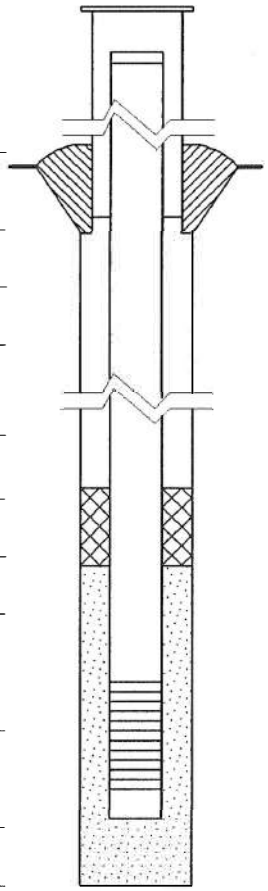
Type of sand pack: Quartz sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: bentonite chips/pellets (if applicable)

Installation method: Free drop



	ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing		
Top of Riser Pipe	566.20	-2.18
Ground Surface	564.02	0
Top of Annular Sealant	561.02	3.00
Static Water Level Measured on (after completion)		NA
Top of Seal	533.72	30.3
Top of Sandpack	532.72	31.3
Top of Screen	530.75	33.27
Bottom of Screen	526.00	38.02
Bottom of Well	525.52	38.5
Bottom of Borehole	523.52	40.5

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	NA
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.5
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	NA
Riser Pipe Length (ft)	35.44
Bottom of Screen to End Cap (ft)	0.48
Screen Length (1st slot to last slot) (ft)	4.75
Total Length of Casing (ft)	40.67
Screen Slot Size¥	#10 (0.01')

¥ Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: D2

Site Name: CWLP Borehole #: D2

Coordinates: X 1130279.34 Y 2456218.06 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: S. Van Hook

Date Well Started: 04/29/2024 Date Well Finished: 04/29/2024 Date Form Completed: 04/29/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

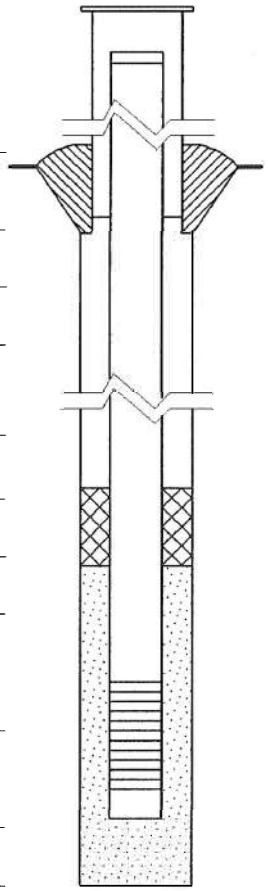
Type of sand pack: Quartz sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: bentonite chips/pellets (if applicable)

Installation method: Free drop



	ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing		
Top of Riser Pipe	560.93	-2.93
Ground Surface	558.00	0
Top of Annular Sealant	555.00	3.00
Static Water Level Measured on (after completion)		NA
Top of Seal	531.20	26.8
Top of Sandpack	528.73	27.77
Top of Screen	523.98	29.27
Bottom of Screen	523.98	34.02
Bottom of Well	523.50	34.5
Bottom of Borehole	520.50	37.5

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	NA
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.5
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	NA
Riser Pipe Length (ft)	32.19
Bottom of Screen to End Cap (ft)	0.48
Screen Length (1st slot to last slot) (ft)	4.75
Total Length of Casing (ft)	37.42
Screen Slot Size‡	#10 (0.01')

‡Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: D3

Site Name: CWLP Borehole #: D3

Coordinates: X 1129517.94 Y 2455925.82 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: S. Van Hook

Date Well Started: 04/30/2024 Date Well Finished: 04/30/2024 Date Form Completed: 04/30/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

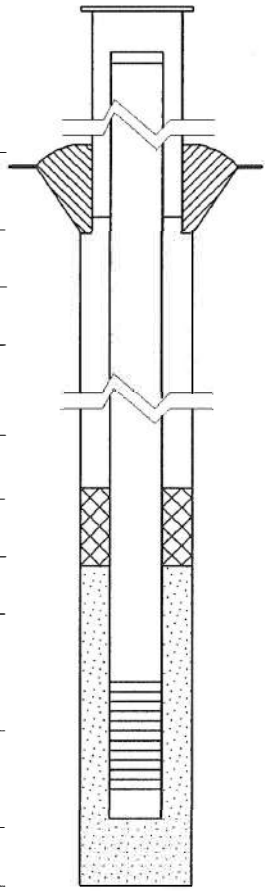
Type of sand pack: Quartz sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: bentonite chips/pellets (if applicable)

Installation method: Free drop



	ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing		
Top of Riser Pipe	557.90	-2.87
Ground Surface	555.03	0
Top of Annular Sealant	552.03	3.00
Static Water Level Measured on (after completion)		NA
Top of Seal	535.14	19.9
Top of Sandpack	533.18	21.85
Top of Screen	531.76	23.27
Bottom of Screen	527.01	28.02
Bottom of Well	526.53	28.5
Bottom of Borehole	523.53	31.5

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	NA
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.5
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	NA
Riser Pipe Length (ft)	26.13
Bottom of Screen to End Cap (ft)	0.48
Screen Length (1st slot to last slot) (ft)	4.75
Total Length of Casing (ft)	31.36
Screen Slot Size¥	#10 (0.01')

¥ Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: D4

Site Name: CWLP Borehole #: D4

Coordinates: X 1129061.39 Y 2455862.82 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: S. Van Hook

Date Well Started: 04/30/2024 Date Well Finished: 04/30/2024 Date Form Completed: 04/30/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

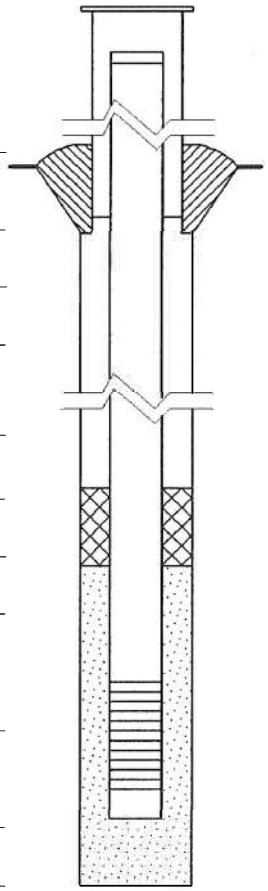
Type of sand pack: Quartz sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: bentonite chips/pellets (if applicable)

Installation method: Free drop



	ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing		
Top of Riser Pipe	565.61	-3.81
Ground Surface	561.80	0
Top of Annular Sealant	558.80	3.00
Static Water Level Measured on (after completion)		NA
Top of Seal	537.70	24.1
Top of Sandpack	536.55	25.25
Top of Screen	535.53	26.27
Bottom of Screen	530.78	31.02
Bottom of Well	530.30	31.5
Bottom of Borehole	525.00	36.8

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	NA
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.5
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	NA
Riser Pipe Length (ft)	30.08
Bottom of Screen to End Cap (ft)	0.48
Screen Length (1st slot to last slot) (ft)	4.75
Total Length of Casing (ft)	35.31
Screen Slot Size¥	#10 (0.01')

¥ Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: L1

Site Name: CWLP Borehole #: L1

Coordinates: X 1127471.56 Y 2456542.96 (or) Latitude: ___ ° ___ ' ___ " Longitude: ___ ° ___ ' ___ "

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: S. Van Hook

Date Well Started: 05/02/2024 Date Well Finished: 05/02/2024 Date Form Completed: 05/02/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

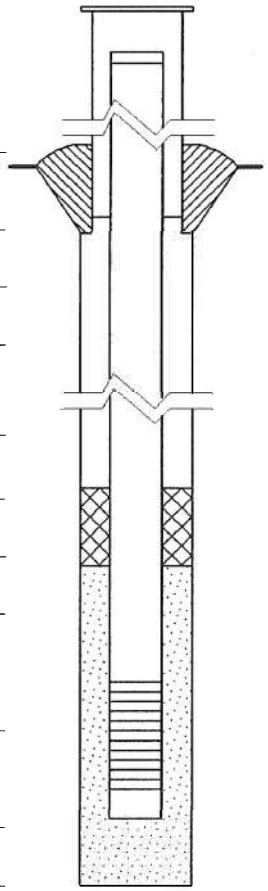
Type of sand pack: Quartz sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: bentonite chips/pellets (if applicable)

Installation method: free drop



	ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing		
Top of Riser Pipe	572.31	-3.35
Ground Surface	568.96	0
Top of Annular Sealant	565.96	3.00
Static Water Level Measured on (after completion)		NA
Top of Seal	543.86	25.1
Top of Sandpack	541.21	27.75
Top of Screen	539.69	29.27
Bottom of Screen	534.94	34.02
Bottom of Well	534.46	34.5
Bottom of Borehole	530.96	38

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	NA
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.5
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	NA
Riser Pipe Length (ft)	32.62
Bottom of Screen to End Cap (ft)	0.48
Screen Length (1st slot to last slot) (ft)	4.75
Total Length of Casing (ft)	37.85
Screen Slot Size¥	#10 (0.01')

¥ Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: D3

Site Name: CWLP Borehole #: D3

Coordinates: X 1129517.94 Y 2455925.82 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: S. Van Hook

Date Well Started: 04/30/2024 Date Well Finished: 04/30/2024 Date Form Completed: 04/30/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

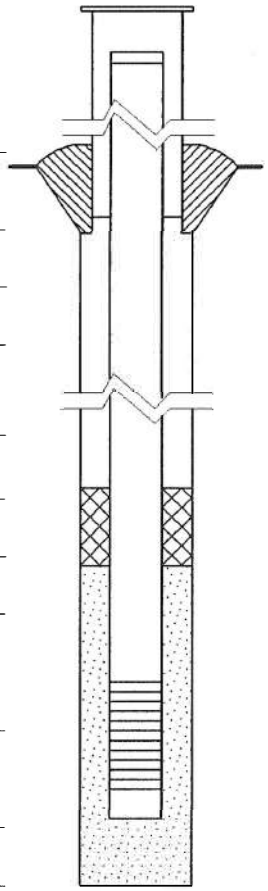
Type of sand pack: Quartz sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: bentonite chips/pellets (if applicable)

Installation method: Free drop



	ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing		
Top of Riser Pipe	557.90	-2.87
Ground Surface	555.03	0
Top of Annular Sealant	552.03	3.00
Static Water Level Measured on (after completion)		NA
Top of Seal	535.14	19.9
Top of Sandpack	533.18	21.85
Top of Screen	531.76	23.27
Bottom of Screen	527.01	28.02
Bottom of Well	526.53	28.5
Bottom of Borehole	523.53	31.5

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	NA
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.5
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	NA
Riser Pipe Length (ft)	26.13
Bottom of Screen to End Cap (ft)	0.48
Screen Length (1st slot to last slot) (ft)	4.75
Total Length of Casing (ft)	31.36
Screen Slot Size¥	#10 (0.01')

¥ Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: D4

Site Name: CWLP Borehole #: D4

Coordinates: X 1129061.39 Y 2455862.82 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: S. Van Hook

Date Well Started: 04/30/2024 Date Well Finished: 04/30/2024 Date Form Completed: 04/30/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

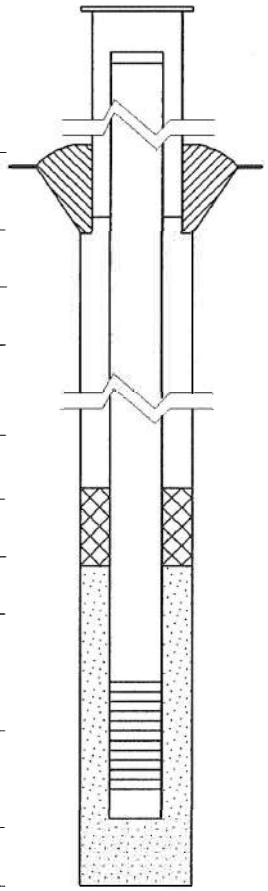
Type of sand pack: Quartz sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: bentonite chips/pellets (if applicable)

Installation method: Free drop



	ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing		
Top of Riser Pipe	565.61	-3.81
Ground Surface	561.80	0
Top of Annular Sealant	558.80	3.00
Static Water Level Measured on (after completion)		NA
Top of Seal	537.70	24.1
Top of Sandpack	536.55	25.25
Top of Screen	535.53	26.27
Bottom of Screen	530.78	31.02
Bottom of Well	530.30	31.5
Bottom of Borehole	525.00	36.8

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	NA
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.5
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	NA
Riser Pipe Length (ft)	30.08
Bottom of Screen to End Cap (ft)	0.48
Screen Length (1st slot to last slot) (ft)	4.75
Total Length of Casing (ft)	35.31
Screen Slot Size¥	#10 (0.01')

¥ Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Springfield Well #: L5

Site Name: CWLP Borehole #: L5

Coordinates: X 1128308.68 Y 2456118.11 (or) Latitude: ___° ___' ___" Longitude: ___° ___' ___"

Surveyed by: Andrews Engineering, Inc. IL Registration #: _____

Drilling Contractor: Skinner Limited Consulting Firm: Andrews Engineering, Inc.

Driller: T. Skinner Geologist: S. Van Hook

Drilling Method: 4 1/4" HSA 5' CSD 3" Logged by: S. Van Hook

Drilling Fluids (type): NA Report Form Completed by: S. Van Hook

Date Well Started: 05/03/2024 Date Well Finished: 05/03/2024 Date Form Completed: 05/03/2024

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: Free drop

Setting time: 24+ hours

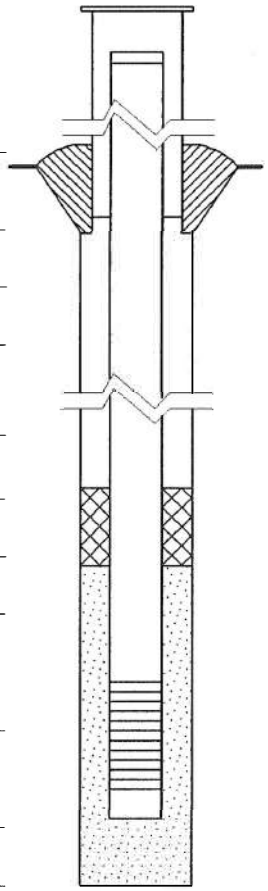
Type of sand pack: Quartz sand

Grain size: 10/20 (sieve size)

Installation method: Free drop

Type of backfill material: bentonite chips/pellets (if applicable)

Installation method: Free drop



	ELEVATION (MSL)*	DEPTH (BGS)* (0.01 ft)
Top of Protective Casing		
Top of Riser Pipe	568.01	-2.82
Ground Surface	565.19	0
Top of Annular Sealant	562.19	3.00
Static Water Level Measured on (after completion)		NA
Top of Seal	541.49	23.7
Top of Sandpack	539.39	25.8
Top of Screen	535.09	30.1
Bottom of Screen	530.39	34.8
Bottom of Well	529.89	35.3
Bottom of Borehole	525.69	39.5

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	NA
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.5
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	NA
Riser Pipe Length (ft)	32.92
Bottom of Screen to End Cap (ft)	0.48
Screen Length (1st slot to last slot) (ft)	4.75
Total Length of Casing (ft)	38.12
Screen Slot Size*	#10 (0.01')

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: DO06

Site Name: CWLP Ash Pond Dewatering Borehole #: DO06

State Plane Coordinate: X 2,456,191.3 Y 1,129,174.1 (or) Latitude: _____ Longitude: _____

Surveyed By: Romanotto IL Registration #: _____

Drilling Contractor: Skinner Limited Driller: T. Skinner

Consulting Firm: Hanson Professional Services Inc. Geologist: Rhonald W. Hasenyager, LPG #196-000246

Drilling Method: Bucket Auger Drilling Fluid (Type): none

Logged By: Rhonald W. Hasenyager Date Started: 6/19/2025 Date Finished: 6/20/2025

Report Form Completed By: Rhonald W. Hasenyager Date: 7/2/2025

ANNULAR SPACE DETAILS

Type of Surface Seal: none

Type of Annular Sealant: none

Installation Method: _____

Setting Time: _____

Type of Bentonite Seal -- Granular Pellet Slurry (choose one)

Installation Method: _____

Setting Time: _____

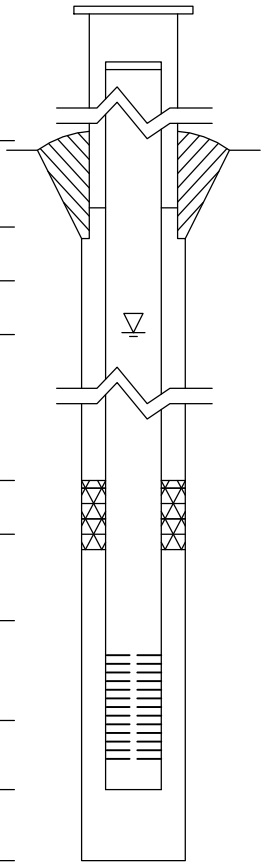
Type of Sand Pack: Sand/Gravel

Grain Size: FA4 & CA1 (sieve size)

Installation Method: Gravity

Type of Backfill Material: n/a (if applicable)

Installation Method: _____



	Elevations (MSL)*	Depths (BGS) (0.01 ft.)
Top of Protective Casing	_____	_____
Top of Riser Pipe	553.69	-0.93
Ground Surface	552.77	0.00
Top of Annular Sealant	552.77	0.00
Static Water Level (After Completion) 6/23/2025	548.00	4.77
Top of Seal	n/a	n/a
Top of Sand Pack	549.77	3.00
Top of Screen	532.48	20.29
Bottom of Screen	522.84	29.93
Bottom of Well	522.47	30.30
Bottom of Borehole	522.47	30.30

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIALS

(Choose one type of material for each area)

Protective Casing	SS304	SS316	PTFE	PVC	OTHER: None
Riser Pipe Above W.T.	SS304	SS316	PTFE	PVC	OTHER:
Riser Pipe Below W.T.	SS304	SS316	PTFE	PVC	OTHER:
Screen	SS304	SS316	PTFE	PVC	OTHER:

CASING MEASUREMENTS

Diameter of Borehole	(inches)	8.0
ID of Riser Pipe	(inches)	2.0
Protective Casing Length	(feet)	0.0
Riser Pipe Length	(feet)	21.13
Bottom of Screen to End Cap	(feet)	0.45
Screen Length (1st slot to last slot)	(feet)	9.64
Total Length of Casing	(feet)	31.22
Screen Slot Size **	(inches)	0.010

**Hand-Slotted Well Screens Are Unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: DO07

Site Name: CWLP Ash Pond Dewatering Borehole #: DO07

State Plane Coordinate: X 2,456,095.0 Y 1,129,197.2 (or) Latitude: _____ Longitude: _____

Surveyed By: Romanotto IL Registration #: _____

Drilling Contractor: Skinner Limited Driller: T. Skinner

Consulting Firm: Hanson Professional Services Inc. Geologist: Rhonald W. Hasenyager, LPG #196-000246

Drilling Method: Hollow Stem Auger Drilling Fluid (Type): none

Logged By: Rhonald W. Hasenyager Date Started: 6/19/2025 Date Finished: 6/19/2025

Report Form Completed By: Rhonald W. Hasenyager Date: 7/2/2025

ANNULAR SPACE DETAILS

Type of Surface Seal: Bentonite chips

Type of Annular Sealant: Bentonite chips

Installation Method: Gravity

Setting Time: _____

Type of Bentonite Seal -- (Granular) Pellet Slurry (choose one)

Installation Method: Gravity

Setting Time: _____

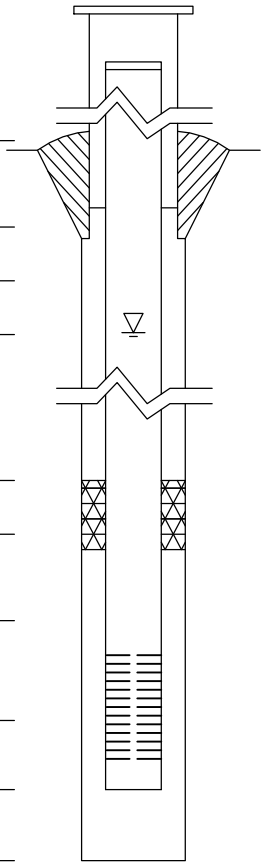
Type of Sand Pack: Silica

Grain Size: #12 (sieve size)

Installation Method: Gravity

Type of Backfill Material: n/a (if applicable)

Installation Method: _____



Elevations (MSL)*	Depths (BGS) (0.01 ft.)	
_____	_____	Top of Protective Casing
555.80	-3.04	Top of Riser Pipe
552.75	0.00	Ground Surface
552.75	0.00	Top of Annular Sealant
548.07	4.68	Static Water Level (After Completion) 6/23/2025
n/a	n/a	Top of Seal
540.05	12.70	Top of Sand Pack
538.37	14.38	Top of Screen
528.13	24.62	Bottom of Screen
527.75	25.00	Bottom of Well
525.75	27.00	Bottom of Borehole

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIALS

(Choose one type of material for each area)

Protective Casing	SS304	SS316	PTFE	PVC	OTHER: (None)
Riser Pipe Above W.T.	SS304	SS316	PTFE	(PVC)	OTHER:
Riser Pipe Below W.T.	SS304	SS316	PTFE	(PVC)	OTHER:
Screen	SS304	SS316	PTFE	(PVC)	OTHER:

CASING MEASUREMENTS

Diameter of Borehole	(inches)	8.0
ID of Riser Pipe	(inches)	2.0
Protective Casing Length	(feet)	0.0
Riser Pipe Length	(feet)	19.93
Bottom of Screen to End Cap	(feet)	0.53
Screen Length (1st slot to last slot)	(feet)	9.59
Total Length of Casing	(feet)	30.05
Screen Slot Size **	(inches)	0.010

**Hand-Slotted Well Screens Are Unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: DO08

Site Name: CWLP Ash Pond Dewatering Borehole #: DO08

State Plane Coordinate: X 2,456,257.4 Y 1,129,401.4 (or) Latitude: _____ Longitude: _____

Surveyed By: Romanotto IL Registration #: _____

Drilling Contractor: Skinner Limited Driller: T. Skinner

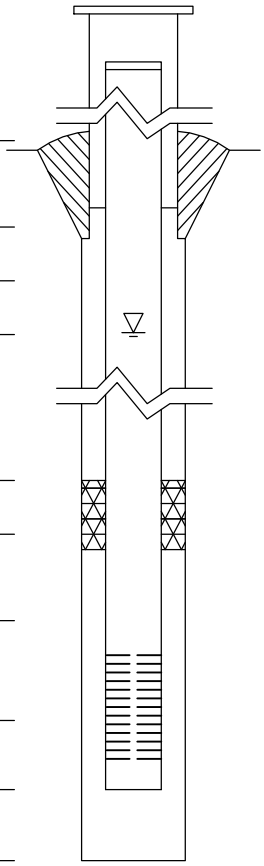
Consulting Firm: Hanson Professional Services Inc. Geologist: Rhonald W. Hasenyager, LPG #196-000246

Drilling Method: Hollow Stem Auger Drilling Fluid (Type): none

Logged By: Rhonald W. Hasenyager Date Started: 6/19/2025 Date Finished: 6/19/2025

Report Form Completed By: Rhonald W. Hasenyager Date: 7/2/2025

ANNULAR SPACE DETAILS



Type of Surface Seal: Bentonite chips

Type of Annular Sealant: Bentonite chips

Installation Method: Gravity

Setting Time: _____

Type of Bentonite Seal -- (Granular) Pellet Slurry (choose one)

Installation Method: Gravity

Setting Time: _____

Type of Sand Pack: Silica

Grain Size: #12 (sieve size)

Installation Method: Gravity

Type of Backfill Material: n/a (if applicable)

Installation Method: _____

	Elevations (MSL)*	Depths (BGS) (0.01 ft.)
Top of Protective Casing	_____	_____
Top of Riser Pipe	554.33	-2.53
Ground Surface	551.80	0.00
Top of Annular Sealant	551.80	0.00
Static Water Level (After Completion) 6/23/2025	545.72	6.08
Top of Seal	n/a	n/a
Top of Sand Pack	535.90	15.90
Top of Screen	534.13	17.67
Bottom of Screen	524.13	27.67
Bottom of Well	523.53	28.27
Bottom of Borehole	523.53	28.27

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIALS

(Choose one type of material for each area)

Protective Casing	SS304	SS316	PTFE	PVC	OTHER: (None)
Riser Pipe Above W.T.	SS304	SS316	PTFE	(PVC)	OTHER:
Riser Pipe Below W.T.	SS304	SS316	PTFE	(PVC)	OTHER:
Screen	SS304	SS316	PTFE	(PVC)	OTHER:

CASING MEASUREMENTS

Diameter of Borehole	(inches)	8.0
ID of Riser Pipe	(inches)	2.0
Protective Casing Length	(feet)	0.0
Riser Pipe Length	(feet)	21.23
Bottom of Screen to End Cap	(feet)	0.55
Screen Length (1st slot to last slot)	(feet)	9.75
Total Length of Casing	(feet)	31.53
Screen Slot Size **	(inches)	0.010

**Hand-Slotted Well Screens Are Unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Sangamon Well #: DW01

Site Name: CWLP Ash Pond Dewatering Borehole #: DW01

State Plane Coordinate: X 2,456,191.3 Y 1,129,174.1 (or) Latitude: _____ Longitude: _____

Surveyed By: Romanotto IL Registration #: _____

Drilling Contractor: Skinner Limited Driller: T. Skinner

Consulting Firm: Hanson Professional Services Inc. Geologist: Rhonald W. Hasenyager, LPG #196-000246

Drilling Method: Bucket Auger Drilling Fluid (Type): none

Logged By: Rhonald W. Hasenyager Date Started: 6/19/2025 Date Finished: 6/20/2025

Report Form Completed By: Rhonald W. Hasenyager Date: 7/2/2025

ANNULAR SPACE DETAILS

Type of Surface Seal: none

Type of Annular Sealant: none

Installation Method: _____

Setting Time: _____

Type of Bentonite Seal -- Granular Pellet Slurry (choose one)

Installation Method: _____

Setting Time: _____

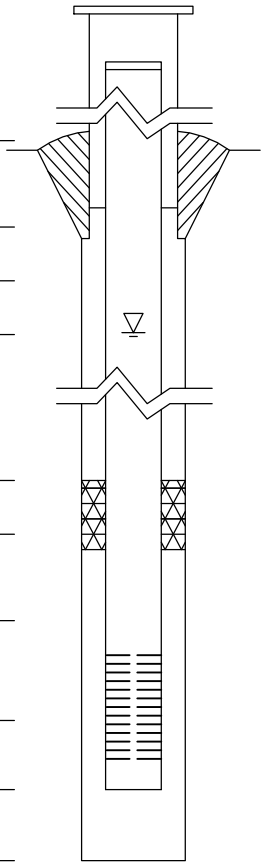
Type of Sand Pack: Sand/Gravel

Grain Size: FA4 & CA1 (sieve size)

Installation Method: Gravity

Type of Backfill Material: n/a (if applicable)

Installation Method: _____



	Elevations (MSL)*	Depths (BGS) (0.01 ft.)
Top of Protective Casing	_____	_____
Top of Riser Pipe	554.16	-1.16
Ground Surface	553.01	0.00
Top of Annular Sealant	_____	_____
Static Water Level (After Completion) 6/23/2025	547.58	5.43
Top of Seal	n/a	n/a
Top of Sand Pack	550.01	3.00
Top of Screen	547.01	6.00
Bottom of Screen	523.31	29.70
Bottom of Well	522.71	30.30
Bottom of Borehole	522.71	30.30

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIALS

(Choose one type of material for each area)

Protective Casing	SS304	SS316	PTFE	PVC	OTHER: None
Riser Pipe Above W.T.	SS304	SS316	PTFE	PVC	OTHER:
Riser Pipe Below W.T.	SS304	SS316	PTFE	PVC	OTHER:
Screen	SS304	SS316	PTFE	PVC	OTHER:

CASING MEASUREMENTS

Diameter of Borehole	(inches)	36.0
ID of Riser Pipe	(inches)	16.5
Protective Casing Length	(feet)	0.0
Riser Pipe Length	(feet)	6.45
Bottom of Screen to End Cap	(feet)	0.00
Screen Length (1st slot to last slot)	(feet)	25.00
Total Length of Casing	(feet)	31.45
Screen Slot Size **	(inches)	

**Hand-Slotted Well Screens Are Unacceptable

APPENDIX B5:

FLOW PATH INVESTIGATION WELL CONSTRUCTION REPORTS

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: AP6S

Site Name: FGDS Development Borehole #: AP 6SA

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 13 " Longitude: -89 ° 35 ' 57 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/13/2025 Date Well Finished: 5/13/2025 Date Form Completed: 6/10/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: n/a

Installation method: _____

Setting time: _____

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 24+ hours

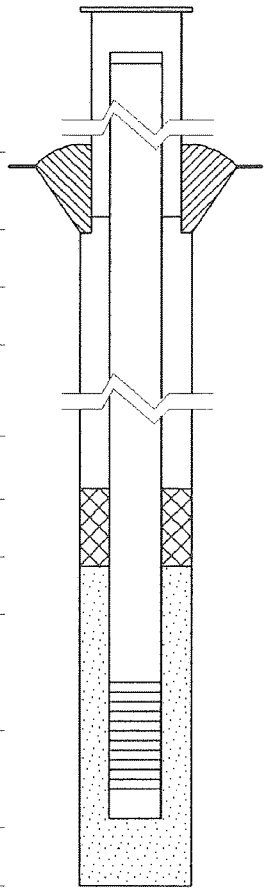
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)*	(0.01 ft)
536.80	-2.64	Top of Protective Casing
536.47	-2.31	Top of Riser Pipe
534.16	0.0	Ground Surface
_____	_____	Top of Annular Sealant
_____	_____	Static Water Level Measured on (after completion)
532.16	2.0	Top of Seal
527.36	6.8	Top of Sandpack
525.26	8.9	Top of Screen
520.56	13.6	Bottom of Screen
520.16	14.0	Bottom of Well
520.16	14.0	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	11.21
Bottom of Screen to End Cap (ft)	0.4
Screen Length (1st slot to last slot) (ft)	4.7
Total Length of Casing (ft)	16.31
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: AP-8S

Site Name: FGDS Development Borehole #: AP-8SA

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 10 " Longitude: 89 ° 36 ' 2 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/14/2025 Date Well Finished: 5/14/2025 Date Form Completed: 6/9/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: n/a

Installation method: _____

Setting time: _____

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 24+ hours

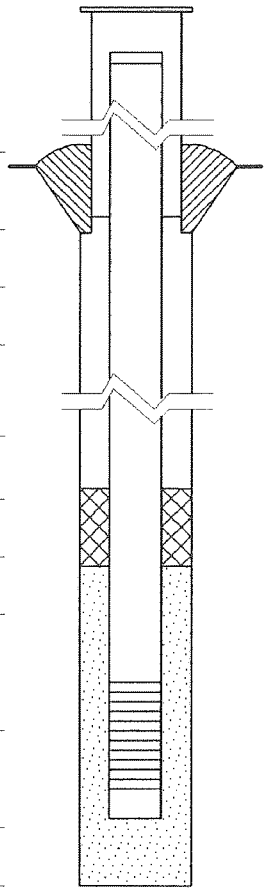
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: Sandpack (if applicable)

Installation method: free Drop



ELEVATION (MSL)®	DEPTH (BGS)*	(0.01 ft)
538.59	-2.62	Top of Protective Casing
538.53	-2.56	Top of Riser Pipe
535.97	0.0	Ground Surface
_____	_____	Top of Annular Sealant
_____	_____	Static Water Level Measured on (after completion)
533.97	2.0	Top of Seal
528.87	7.1	Top of Sandpack
526.96	9.01	Top of Screen
522.26	13.71	Bottom of Screen
521.86	14.11	Bottom of Well
520.97	15.0	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	11.57
Bottom of Screen to End Cap (ft)	0.4
Screen Length (1st slot to last slot) (ft)	4.7
Total Length of Casing (ft)	16.67
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: AP-15D

Site Name: FGDS Development Borehole #: AP-15D

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 45 ' 46 " Longitude: -89 ° 35 ' 59 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA, 2' split spoon, and 5' CB Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/12/2025 Date Well Finished: 5/12/2025 Date Form Completed: 6/3/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Tremie

Setting time: 24+ Hours

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 30+ minutes

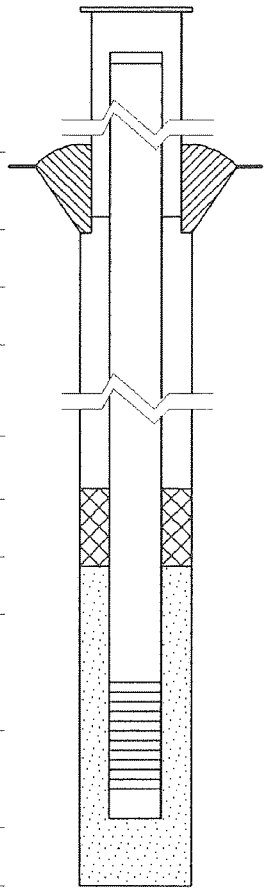
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)*	(0.01 ft)
538.79	-2.49	Top of Protective Casing
538.61	-2.31	Top of Riser Pipe
536.30	0.0	Ground Surface
534.3	2.0	Top of Annular Sealant
		Static Water Level Measured on (after completion)
512.7	23.6	Top of Seal
510.7	25.6	Top of Sandpack
508.63	27.67	Top of Screen
506.23	30.07	Bottom of Screen
505.8	30.5	Bottom of Well
504.3	30.5	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	29.98
Bottom of Screen to End Cap (ft)	0.43
Screen Length (1st slot to last slot) (ft)	2.4
Total Length of Casing (ft)	32.81
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: AP15S

Site Name: FGDS Development Borehole #: AP15S

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 45 ' 46 " Longitude: -89 ° 35 ' 59 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/12/2025 Date Well Finished: 5/13/2025 Date Form Completed: 6/5/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite chips

Installation method: tremie

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 24+ hours

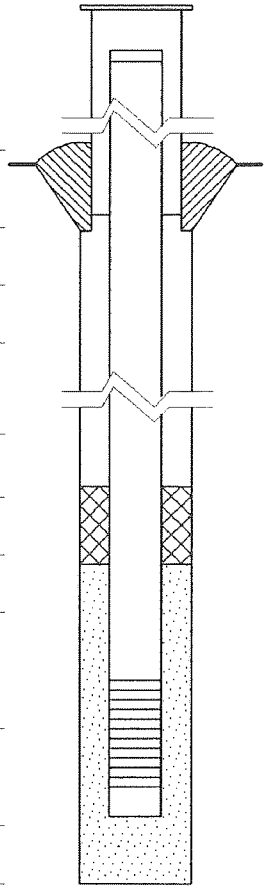
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: Quartz sand (if applicable)

Installation method: free drop



ELEVATION (MSL)*	DEPTH (BGS)*	(0.01 ft)
538.79	-2.37	Top of Protective Casing
538.53	-2.11	Top of Riser Pipe
536.42	0.0	Ground Surface
534.42	2.0	Top of Annular Sealant
_____	_____	Static Water Level Measured on (after completion)
523.62	12.8	Top of Seal
521.62	14.8	Top of Sandpack
519.61	16.81	Top of Screen
514.88	21.54	Bottom of Screen
514.44	22.0	Bottom of Well
511.92	24.5	Bottom of Borehole

* Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	18.92
Bottom of Screen to End Cap (ft)	0.46
Screen Length (1st slot to last slot) (ft)	4.73
Total Length of Casing (ft)	24.11
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: AP-16

Site Name: FGDS Development Borehole #: AP-16

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 18 " Longitude: -89 ° 36 ' 0 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/20/2025 Date Well Finished: 5/20/2025 Date Form Completed: 6/6/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Hole plug

Installation method: Free drop

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 30+ minutes

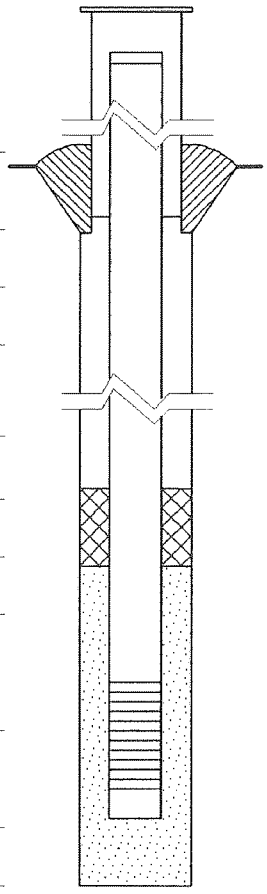
Type of sand pack: quartz sand

Grain size: 20/40 (sieve size)

Installation method: free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)	
539.45	-2.51	Top of Protective Casing
539.28	-2.34	Top of Riser Pipe
536.94	0.0	Ground Surface
534.94	2.0	Top of Annular Sealant
		Static Water Level Measured on (after completion)
525.64	11.3	Top of Seal
523.14	13.8	Top of Sandpack
519.1	17.84	Top of Screen
514.42	22.52	Bottom of Screen
513.94	23.0	Bottom of Well
513.94	23.0	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	20.18
Bottom of Screen to End Cap (ft)	0.48
Screen Length (1st slot to last slot) (ft)	4.68
Total Length of Casing (ft)	25.34
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: P03D

Site Name: FGDS Development Borehole #: P03D

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 14 " Longitude: -89 ° 35 ' 45 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/14/2025 Date Well Finished: 5/14/2025 Date Form Completed: 6/3/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Grout

Installation method: Tremie

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 24+

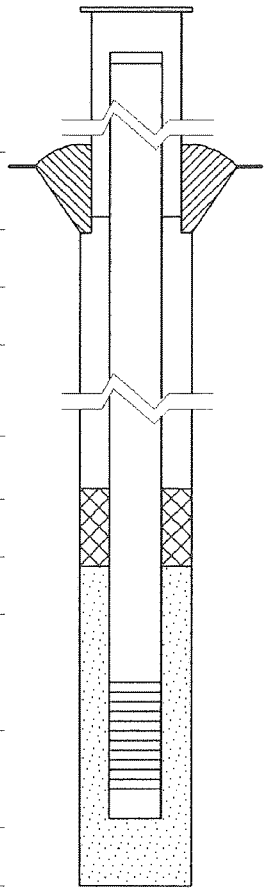
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)*	(0.01 ft)
533.20	-3.18	Top of Protective Casing
533.04	-3.02	Top of Riser Pipe
530.02	0.0	Ground Surface
528.02	2.0	Top of Annular Sealant
		Static Water Level Measured on (after completion)
504.22	25.8	Top of Seal
502.22	27.8	Top of Sandpack
500.19	29.83	Top of Screen
495.49	34.53	Bottom of Screen
495.02	35.0	Bottom of Well
495.02	35.0	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	32.85
Bottom of Screen to End Cap (ft)	0.47
Screen Length (1st slot to last slot) (ft)	4.7
Total Length of Casing (ft)	38.02
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: P03S

Site Name: FGDS Development Borehole #: P03S

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 14 " Longitude: -89 ° 35 ' 45 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/14/2025 Date Well Finished: 5/14/2025 Date Form Completed: 6/3/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: n/a

Installation method: _____

Setting time: _____

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 24+ hours

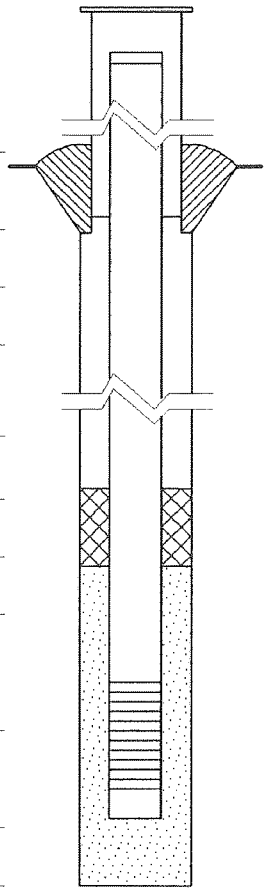
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)*	(0.01 ft)
533.10	-3.11	Top of Protective Casing
532.75	-2.76	Top of Riser Pipe
529.99	0.0	Ground Surface
_____	_____	Top of Annular Sealant
_____	_____	Static Water Level Measured on (after completion)
527.99	2.0	Top of Seal
523.09	6.9	Top of Sandpack
521.01	8.98	Top of Screen
516.34	13.65	Bottom of Screen
515.99	14.0	Bottom of Well
515.99	14.0	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	11.74
Bottom of Screen to End Cap (ft)	0.35
Screen Length (1st slot to last slot) (ft)	4.67
Total Length of Casing (ft)	16.76
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: P104S

Site Name: FGDS Development Borehole #: P104S

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 13 " Longitude: -89 ° 35 ' 49 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/15/2025 Date Well Finished: 5/15/2025 Date Form Completed: 6/6/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Tremie

Setting time: 24+ Hours

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 30+ minutes

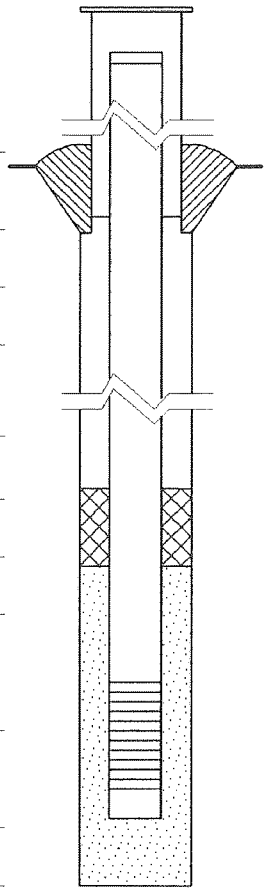
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)	
532.66	-2.93	Top of Protective Casing
532.27	-2.53	Top of Riser Pipe
529.74	0.0	Ground Surface
527.74	2.0	Top of Annular Sealant
		Static Water Level Measured on (after completion)
515.04	14.7	Top of Seal
512.84	16.9	Top of Sandpack
510.42	19.32	Top of Screen
505.72	24.02	Bottom of Screen
505.24	24.5	Bottom of Well
504.74	25	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	21.85
Bottom of Screen to End Cap (ft)	0.48
Screen Length (1st slot to last slot) (ft)	4.7
Total Length of Casing (ft)	27.03
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: R103S

Site Name: FGDS Development Borehole #: R103S

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 13 " Longitude: -89 ° 35 ' 42 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/19/2025 Date Well Finished: 5/19/2025 Date Form Completed: 6/3/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite grout

Installation method: Tremie

Setting time: 24+ hours

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 30+ minutes

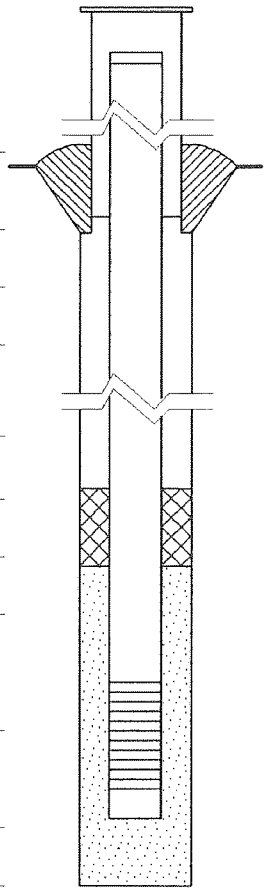
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: bentonite pellets (if applicable)

Installation method: free drop



ELEVATION (MSL)®	DEPTH (BGS)*	(0.01 ft)
537.78	-2.68	Top of Protective Casing
537.64	-2.54	Top of Riser Pipe
535.10	0.0	Ground Surface
533.10	2.0	Top of Annular Sealant
		Static Water Level Measured on (after completion)
519.60	15.5	Top of Seal
517.00	18.1	Top of Sandpack
514.73	20.37	Top of Screen
510.06	25.04	Bottom of Screen
509.60	25.5	Bottom of Well
505.10	30.0	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	22.91
Bottom of Screen to End Cap (ft)	0.46
Screen Length (1st slot to last slot) (ft)	4.67
Total Length of Casing (ft)	28.04
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: RW-3S

Site Name: FGDS Development Borehole #: RW-3S

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 13 " Longitude: -89 ° 35 ' 56 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/15/2025 Date Well Finished: 5/15/2025 Date Form Completed: 6/3/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: n/a

Installation method: _____

Setting time: _____

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 30+ minutes

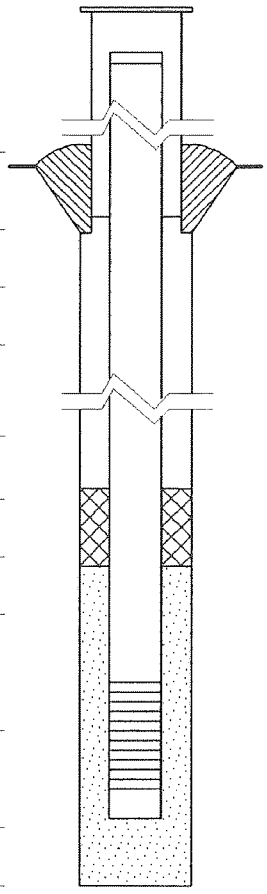
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)*	(0.01 ft)
538.65	-2.78	Top of Protective Casing
538.39	-2.52	Top of Riser Pipe
535.87	0.0	Ground Surface
		Top of Annular Sealant
		Static Water Level Measured on (after completion)
533.87	2.0	Top of Seal
527.97	7.9	Top of Sandpack
525.94	9.93	Top of Screen
521.24	14.63	Bottom of Screen
520.87	15.0	Bottom of Well
520.87	15.0	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	12.45
Bottom of Screen to End Cap (ft)	0.37
Screen Length (1st slot to last slot) (ft)	4.7
Total Length of Casing (ft)	17.52
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 16782500020 County: Sangamon Well #: T4S

Site Name: FGDS Development Borehole #: T4S

Coordinates: X _____ Y _____ (or) Latitude: 39 ° 46 ' 13 " Longitude: -89 ° 36 ' 3 "

Surveyed by: Andrews Engineering IL Registration #: _____

Drilling Contractor: Skinner LTD Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 4.25 HSA and 5' CB, 2 ' split spoon Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 5/20/2025 Date Well Finished: 5/20/2025 Date Form Completed: 6/3/2025

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: n/a

Installation method: _____

Setting time: _____

Type of bentonite seal: Bentonite pellets

Installation method: free drop

Setting time: 24+ hours

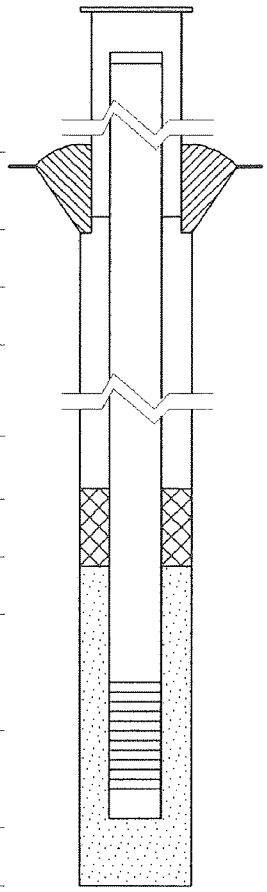
Type of sand pack: quartz sand

Grain size: 10/20 (sieve size)

Installation method: free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)*	(0.01 ft)
549.25	-2.5	Top of Protective Casing
549.04	-2.29	Top of Riser Pipe
546.75	0.0	Ground Surface
_____	_____	Top of Annular Sealant
_____	_____	Static Water Level Measured on (after completion)
544.75	2.0	Top of Seal
538.85	7.9	Top of Sandpack
536.83	9.93	Top of Screen
532.15	14.6	Bottom of Screen
531.75	15.0	Bottom of Well
531.75	15.0	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Steel
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Pre-packed screen

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.0
Protective Casing Length (ft)	5.0
Riser Pipe Length (ft)	12.21
Bottom of Screen to End Cap (ft)	0.4
Screen Length (1st slot to last slot) (ft)	4.68
Total Length of Casing (ft)	17.29
Screen Slot Size*	#10 (0.01)

*Hand-slotted well screens are unacceptable.

APPENDIX C:
GEOLOGIC CROSS SECTIONS

Tab: BORINGS IN X SECTIONS Last Saved: September 5, 2025, by Ben Karpus Plotted: Friday, September 5, 2025 10:14:40 AM
J:\S\Springfield CWLP\CWLP Ash Pond\DWG\2025\Cross Section\PROFILES.dwg

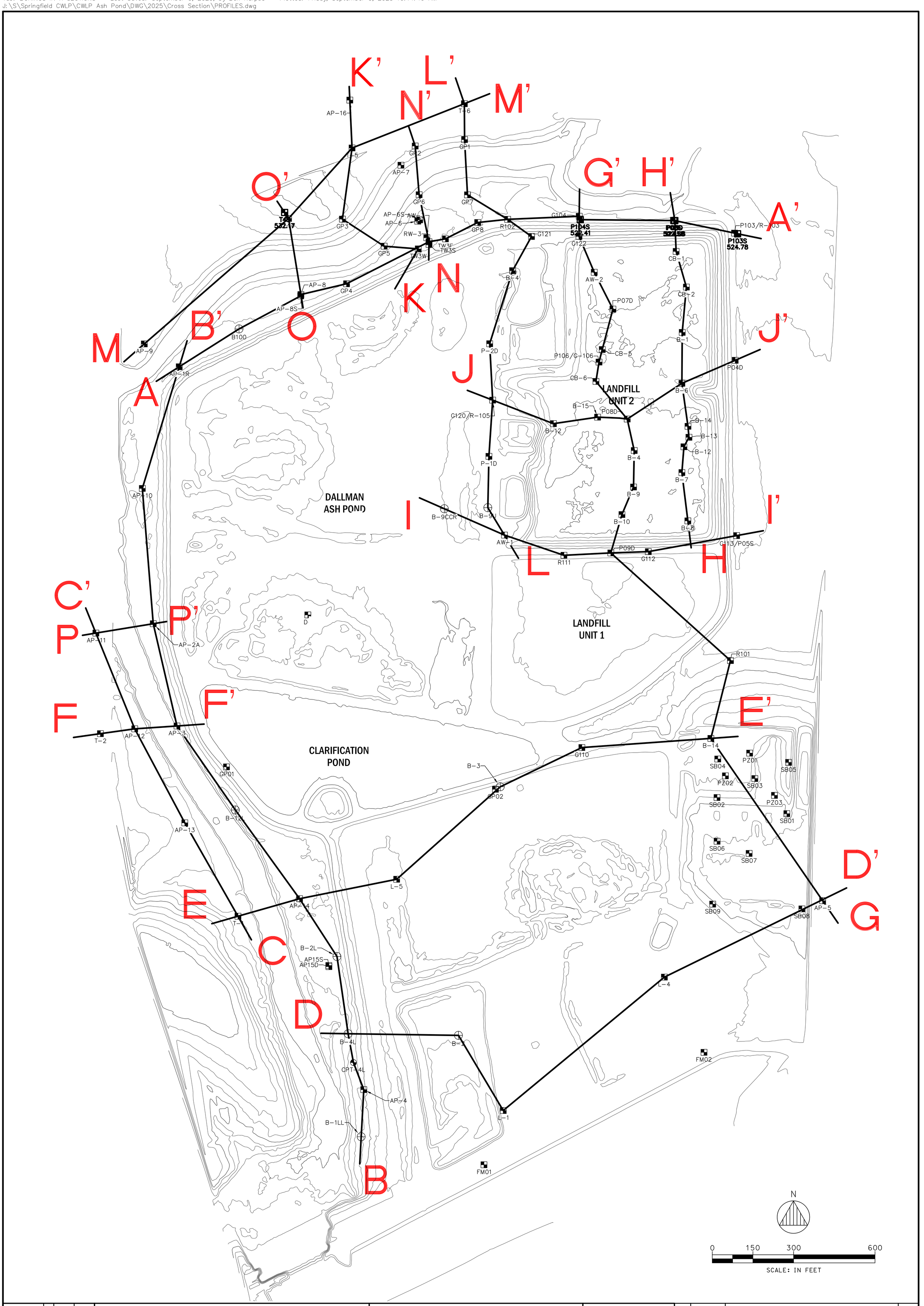


FIG. 1

GEOLOGIC CROSS-SECTION LOCATIONS MAP

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2024

PROJECT ID: 240227/0010

SHEET NUMBER:

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

© 2025 Andrews Engineering, Inc.

WEST

A

MSL

EAST

A'

MSL

B-B'

K-K'

L-L'

G-G'

H-H'

AP-1R 533.10

B100 533.00

AP-8S 535.59

AP-8 537.20

GP-4 536.80

TW3W 536.80

RW-3/TW3N 536.80

TW3E 536.00

GP8 530.08

R102 535.76

G104 530.00

P104S 532.67

P035 529.90

P030 530.50

P103D 536.30

P103S 537.78

523.84

533.57

527.44

525.07

522.41

521.89

524.06

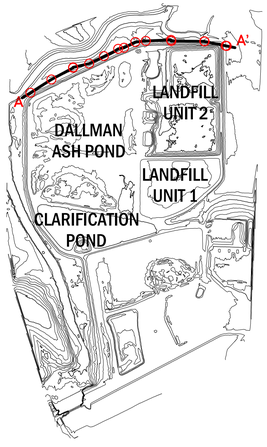
522.58

524.89

524.78

EOB

545 540 535 530 525 520 515 510 505 500 495 490 485 480 475 470 465 460 455 450 445 440 435 430 425

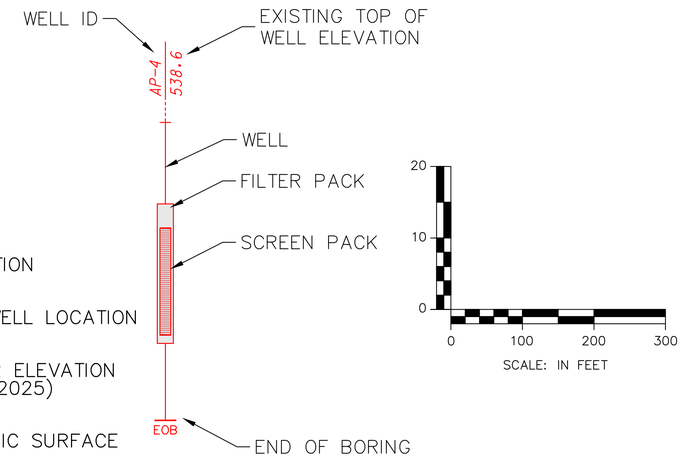


NOTES

1. DEPTH AND THICKNESS OF SUBSURFACE STRATA WERE GENERALIZED FROM AND INTERPOLATED BETWEEN BORINGS. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE LOCATION OF THE BORING. SEE BORING LOGS FOR DETAILED DESCRIPTION.
2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- CLAYSTONE
- SANDSTONE
- LIMESTONE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

GEOLOGIC CROSS-SECTION A-A'

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

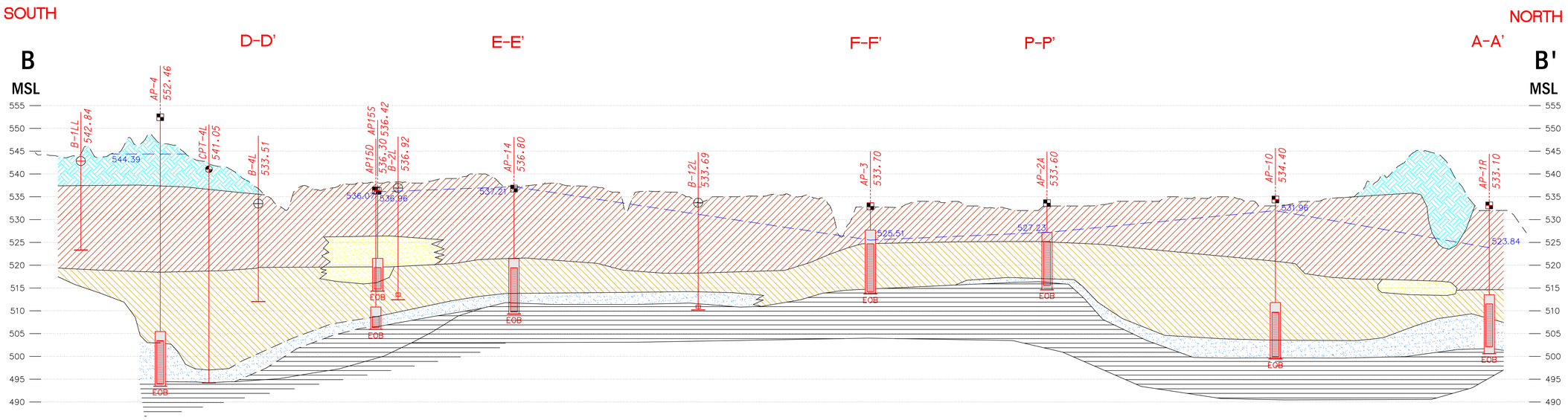
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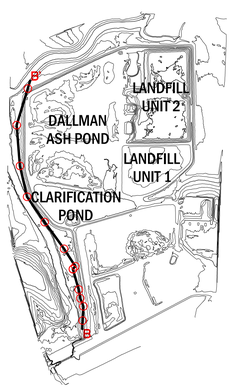
SHEET NUMBER:

A-A'

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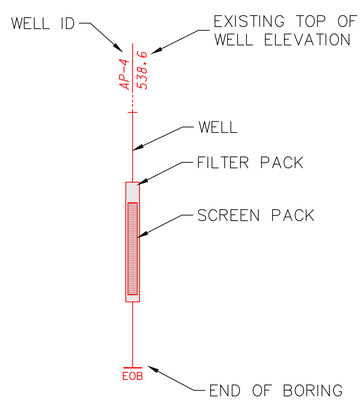


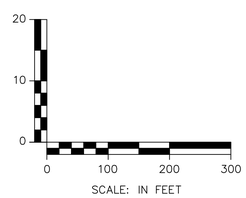
NOTES

1. DEPTH AND THICKNESS OF SUBSURFACE STRATA WERE GENERALIZED FROM AND INTERPOLATED BETWEEN BORINGS. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE LOCATION OF THE BORING. SEE BORING LOGS FOR DETAILED DESCRIPTION.
2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- SHALLOW SAND
- BORING LOCATION
- MONITORING WELL LOCATION
- CPT BORING LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

GEOLOGIC CROSS-SECTION B-B'

PLANS PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

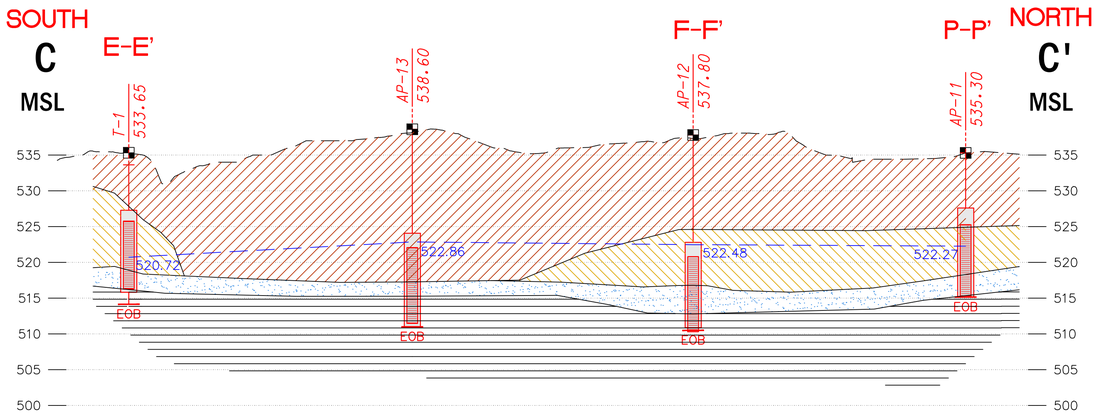
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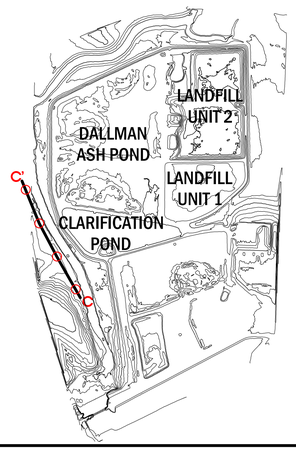
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SHEET NUMBER:

B-B'

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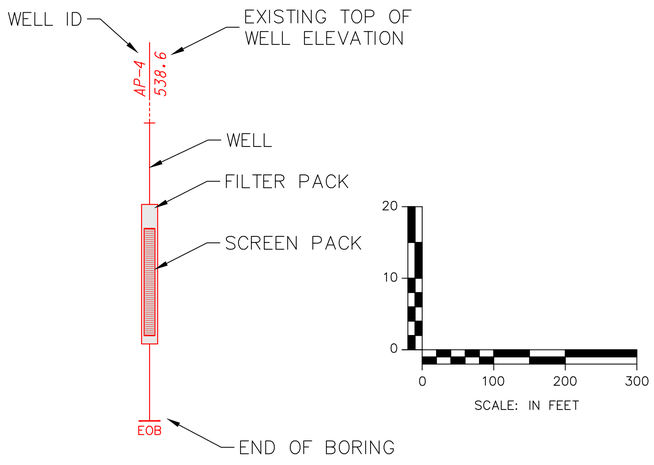


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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

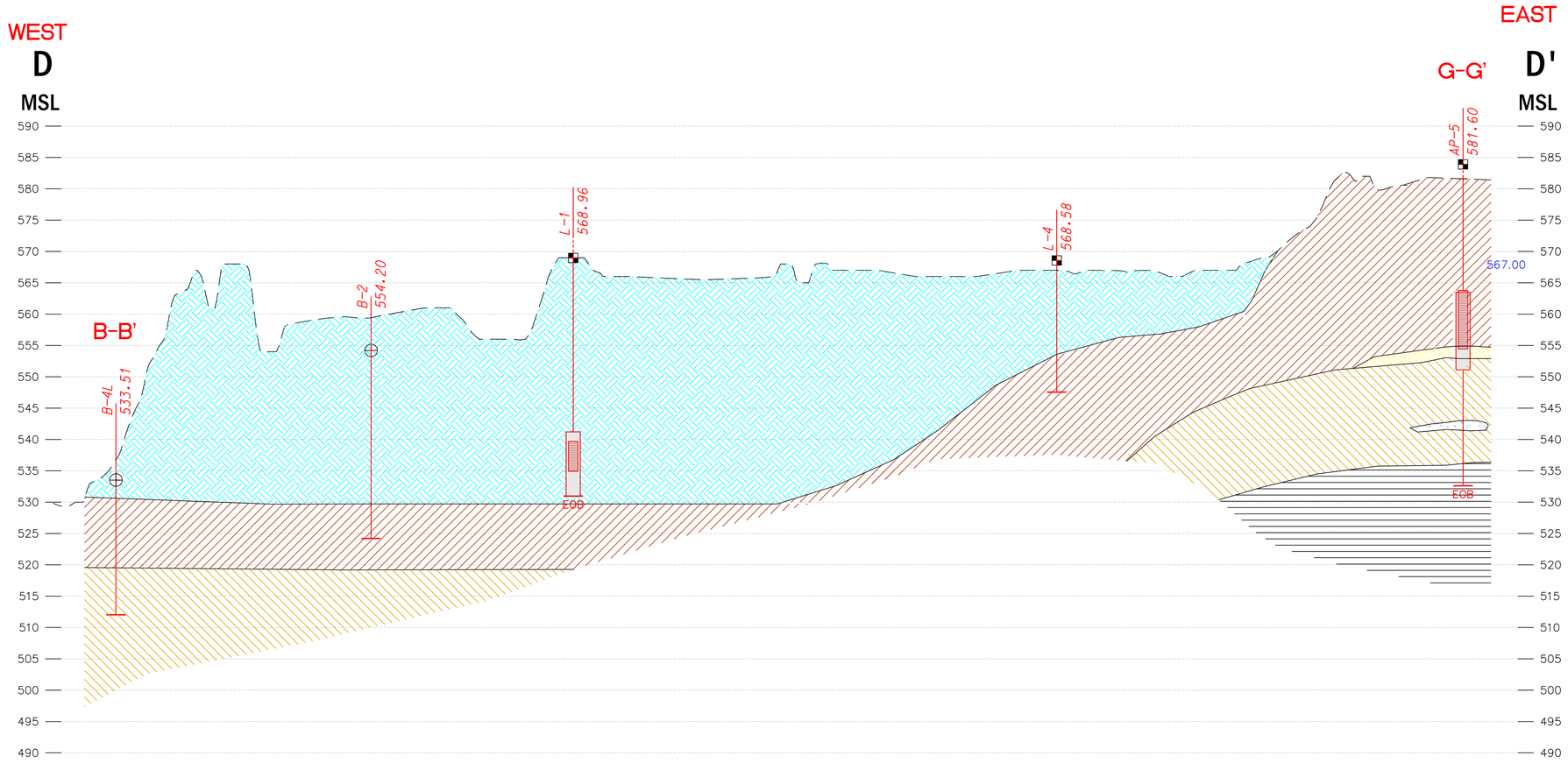
GEOLOGIC CROSS-SECTION C-C'

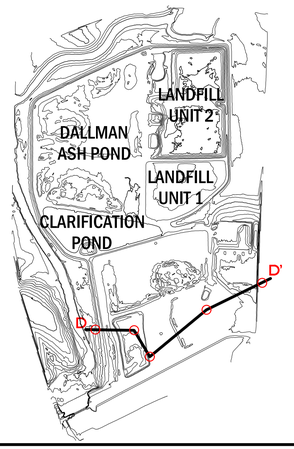
PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025
PROJECT ID: 240338/0014
SHEET NUMBER: C-C'

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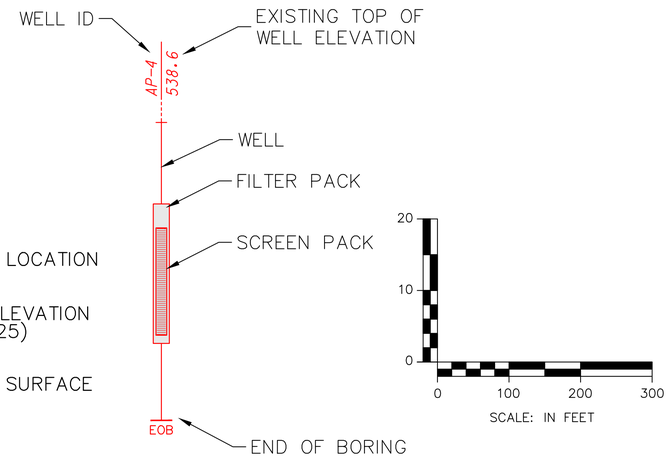


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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
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SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION D-D'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

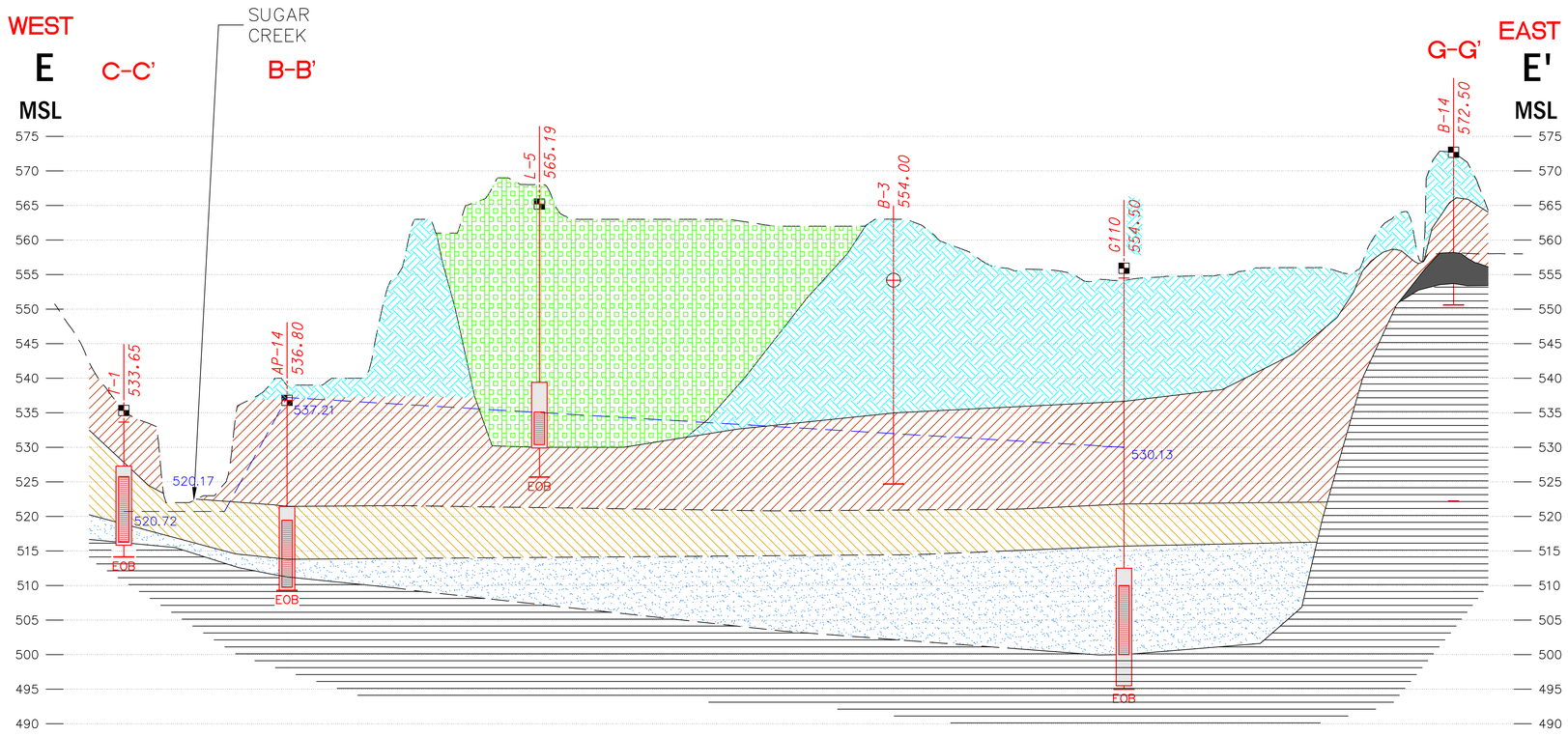
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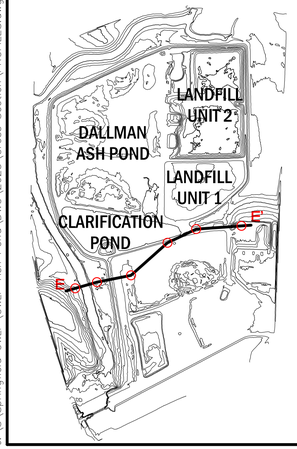
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D-D'

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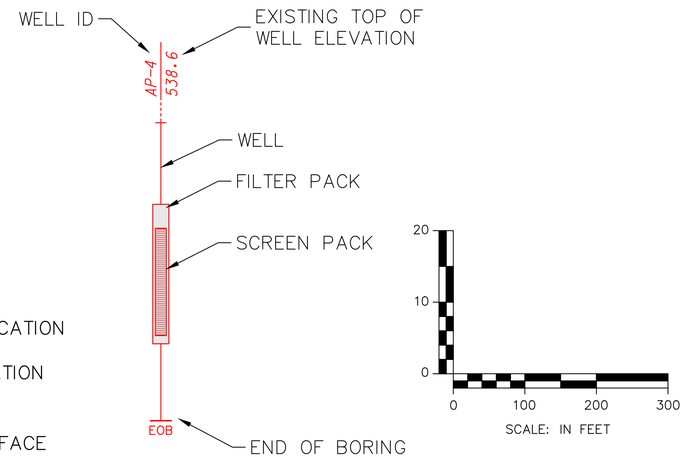


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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- CCR ASH
- COAL
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

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SPRINGFIELD, ILLINOIS 62711-7233
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PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION E-E'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

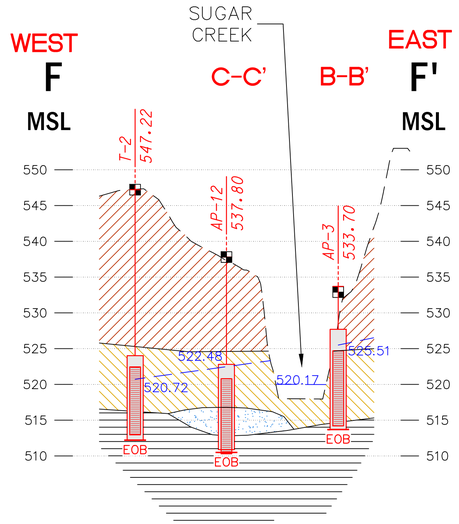
PROJECT ID: 240338/0014

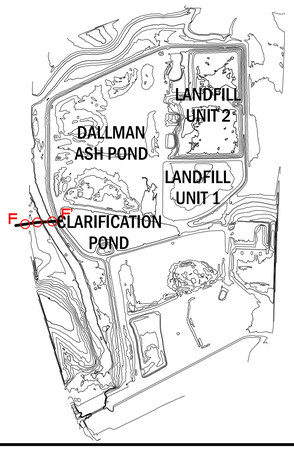
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E-E'

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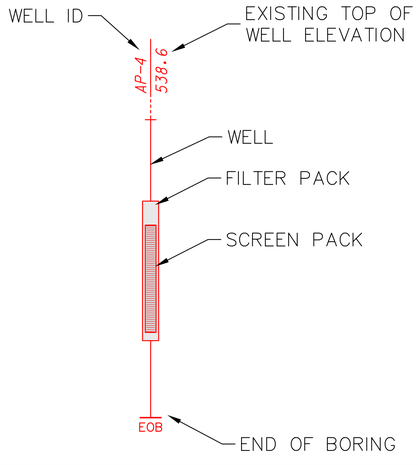


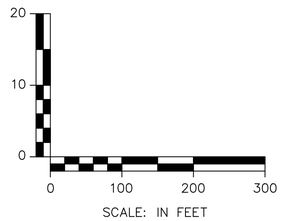
NOTES

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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

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SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION F-F'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE:
SEPTEMBER 2025

PROJECT ID:
240338/0014

SHEET NUMBER:

F-F'

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SOUTH

G

MSL

D–D'

E–E'

I–I'

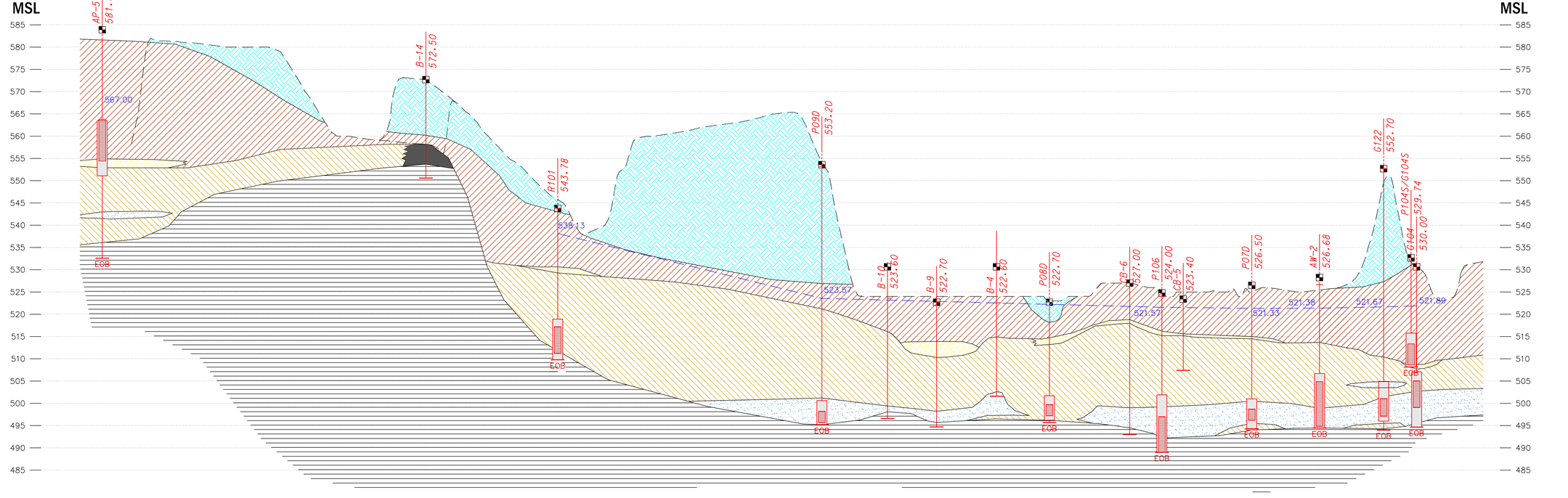
J–J'

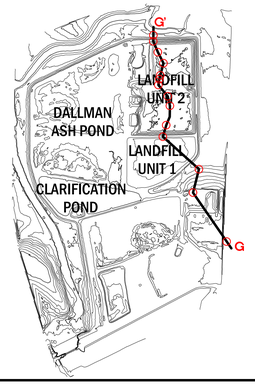
A–A'

G'

MSL

NORTH





NOTES

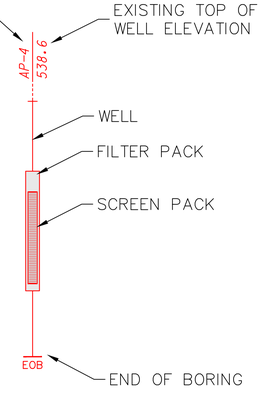
1. DEPTH AND THICKNESS OF SUBSURFACE STRATA WERE GENERALIZED FROM AND INTERPOLATED BETWEEN BORINGS. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE LOCATION OF THE BORING. SEE BORING LOGS FOR DETAILED DESCRIPTION.
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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

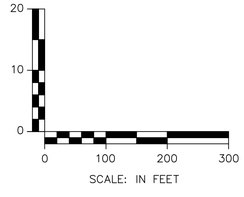
LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- COAL
- MONITORING WELL LOCATION

525.00 — GROUNDWATER ELEVATION (AUGUST 21, 2025)

BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWENG.COM
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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

GEOLOGIC CROSS-SECTION G–G'

PLANS PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

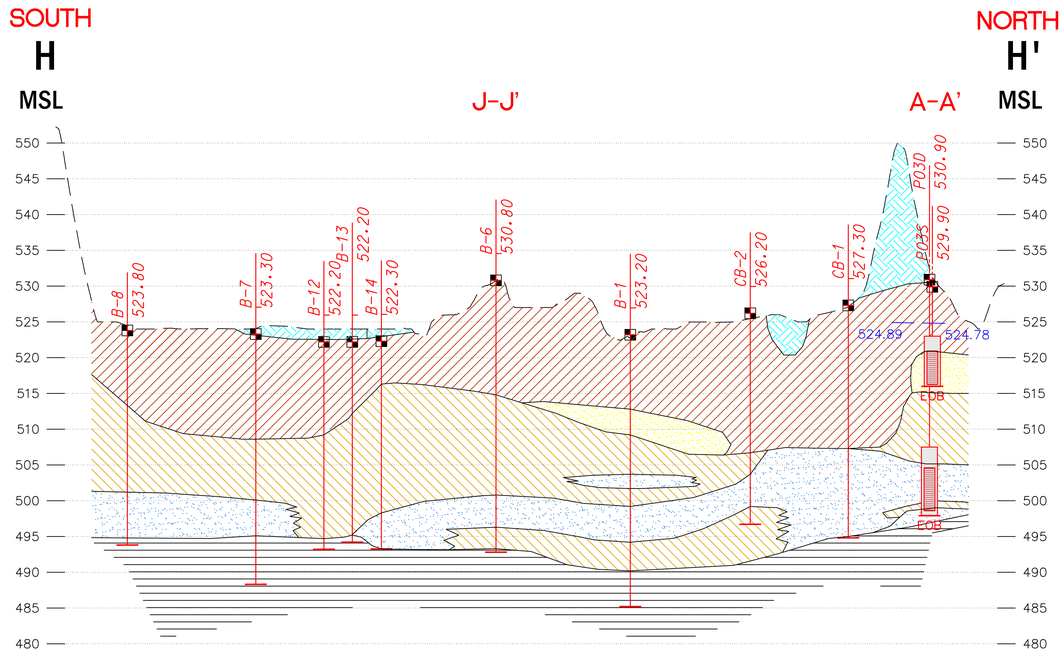
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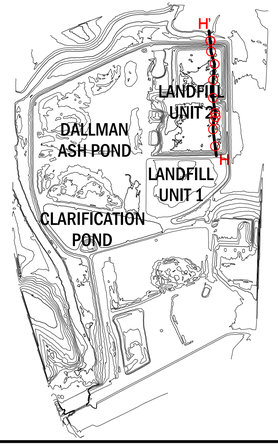
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G–G'

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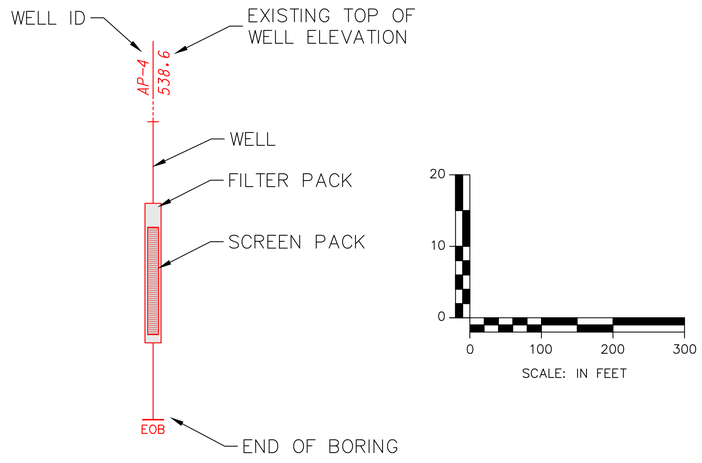


NOTES

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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

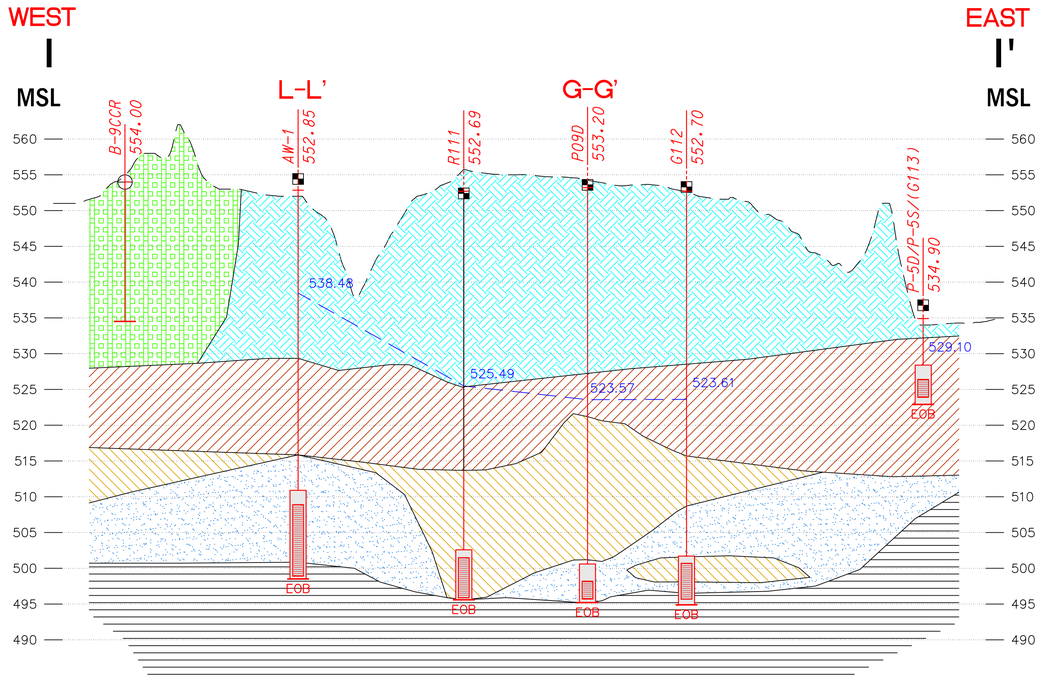
GEOLOGIC CROSS-SECTION H-H'

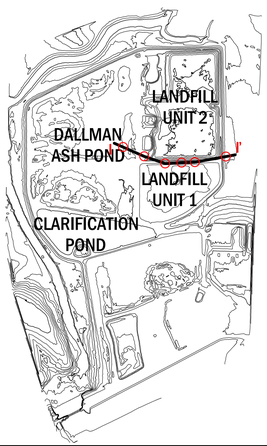
PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025
PROJECT ID: 240338/0014
SHEET NUMBER: H-H'

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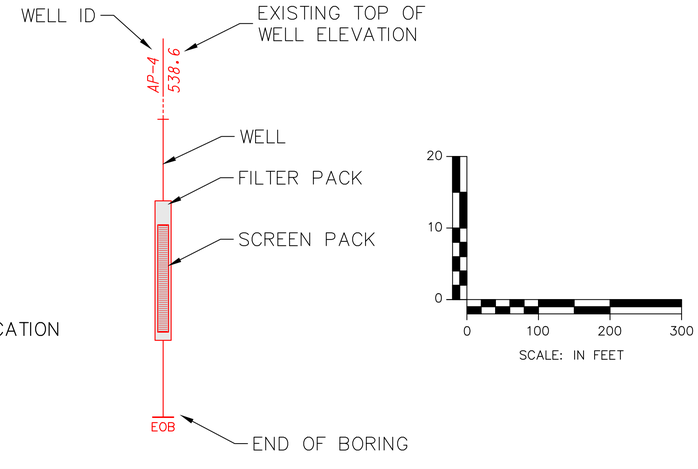


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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- 525.00 — GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE
- BASAL SAND
- SHALE
- CCR ASH
- BORING LOCATION
- MONITORING WELL LOCATION



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION I-I'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

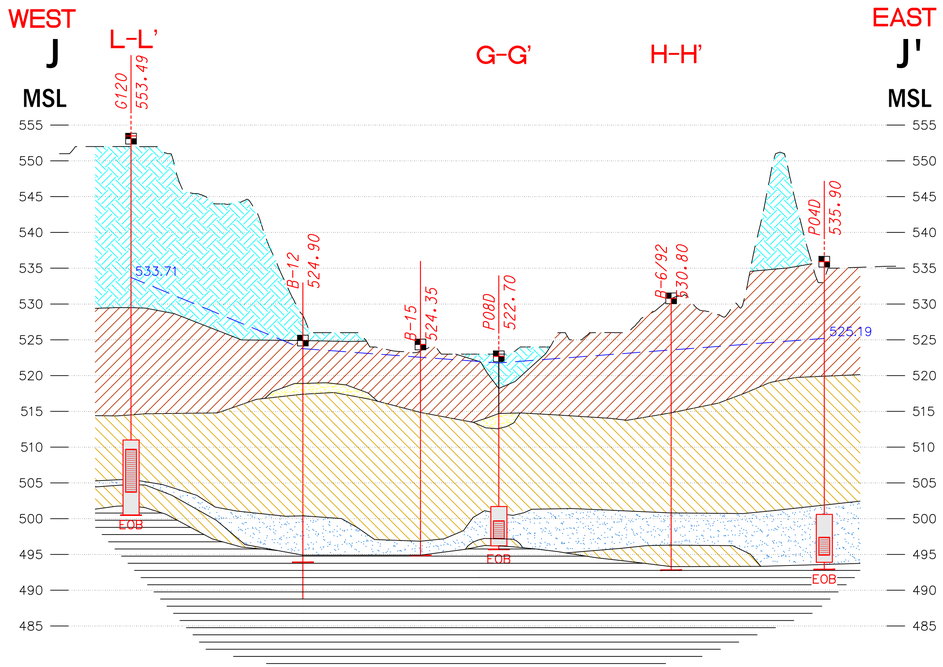
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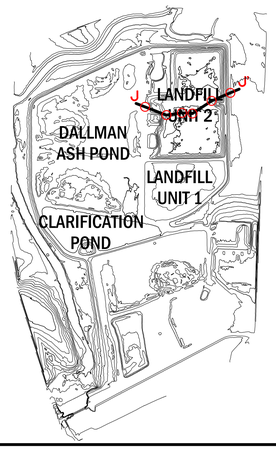
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I-I'

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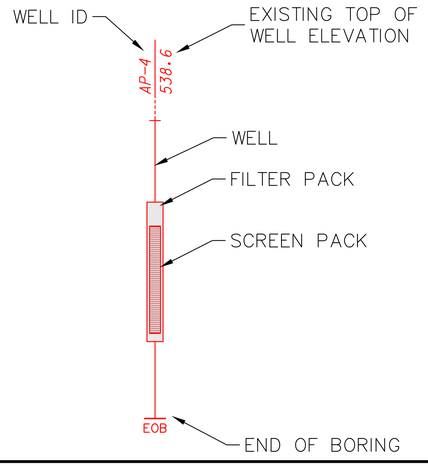


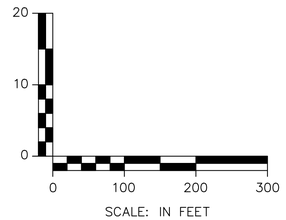
NOTES

1. DEPTH AND THICKNESS OF SUBSURFACE STRATA WERE GENERALIZED FROM AND INTERPOLATED BETWEEN BORINGS. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE LOCATION OF THE BORING. SEE BORING LOGS FOR DETAILED DESCRIPTION.
2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION J-J'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

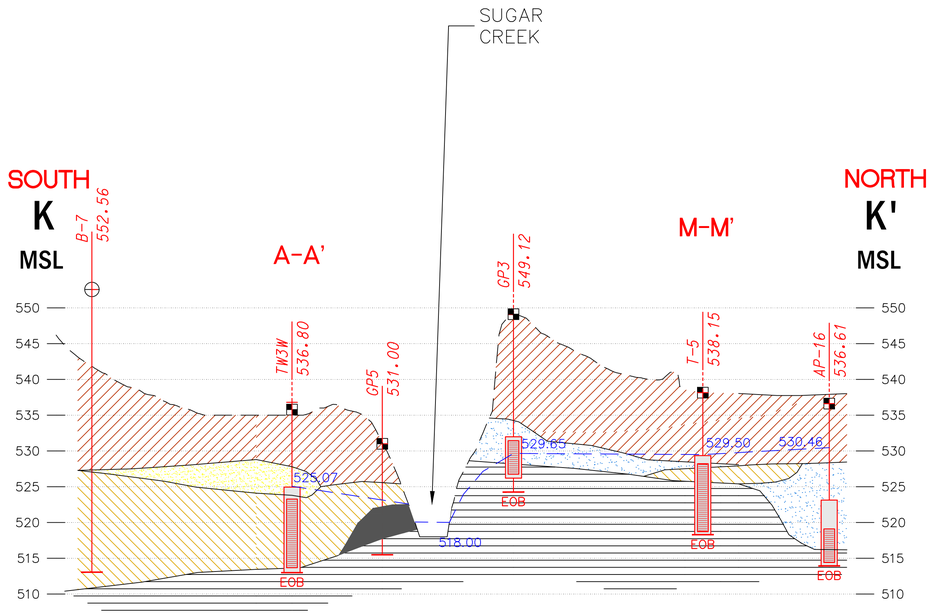
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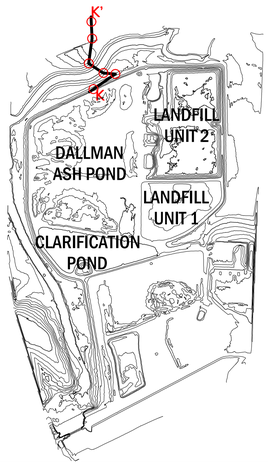
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J-J'

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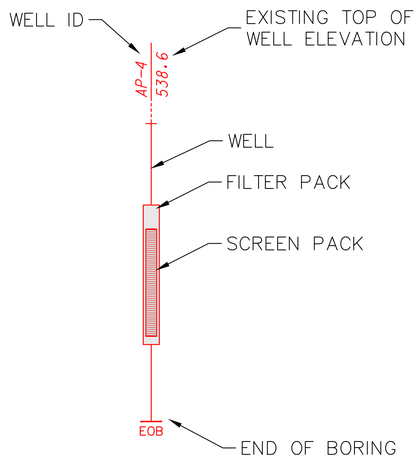


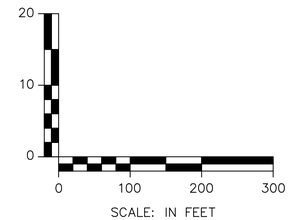
NOTES

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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- COAL
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | CHECKED BY: MTH | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION K-K'

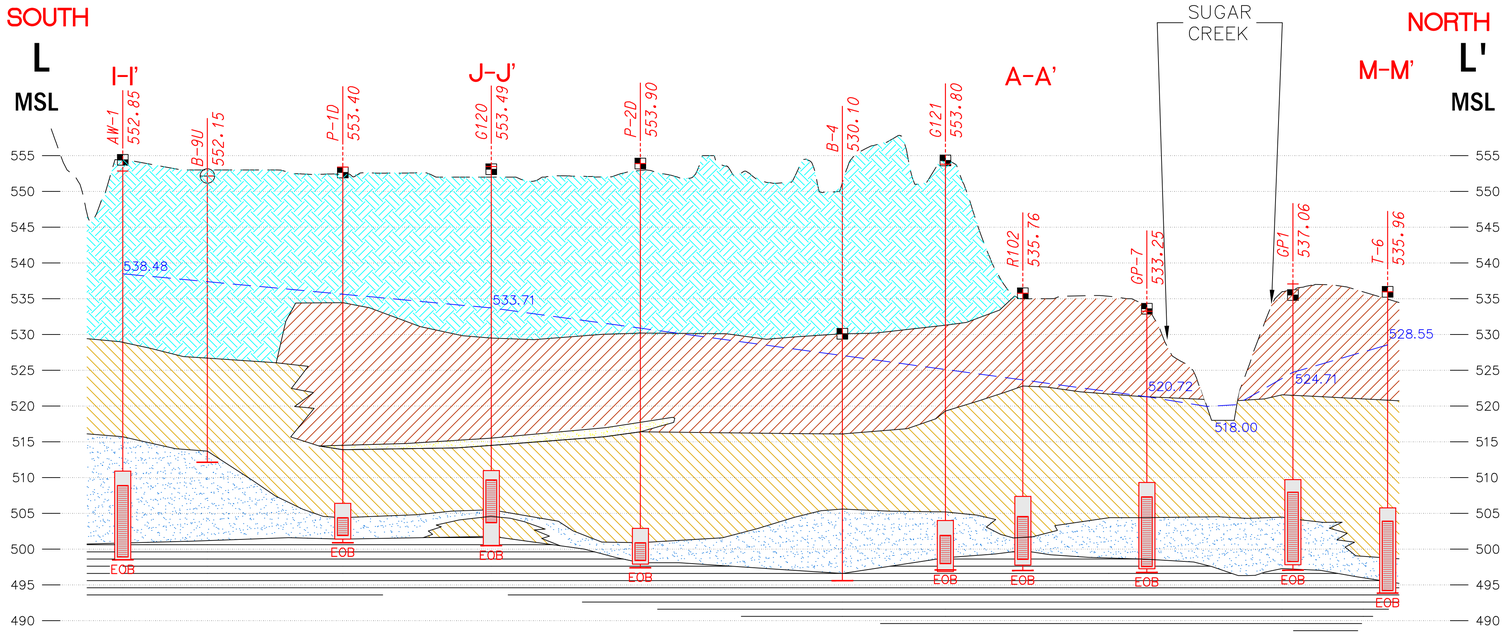
PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

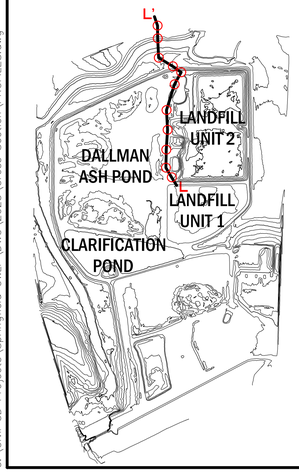
DATE: SEPTEMBER 2025
PROJECT ID: 240338/0014
SHEET NUMBER:

K-K'

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Tab: KK Last Saved: September 23, 2025, by Mike Nguyen Plotted: Tuesday, September 23, 2025 10:11:43 AM
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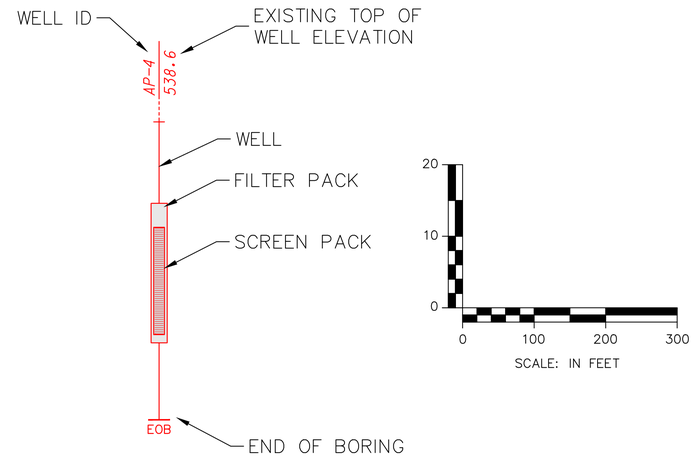


NOTES

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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALLOW SAND
- SHALE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION L-L'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

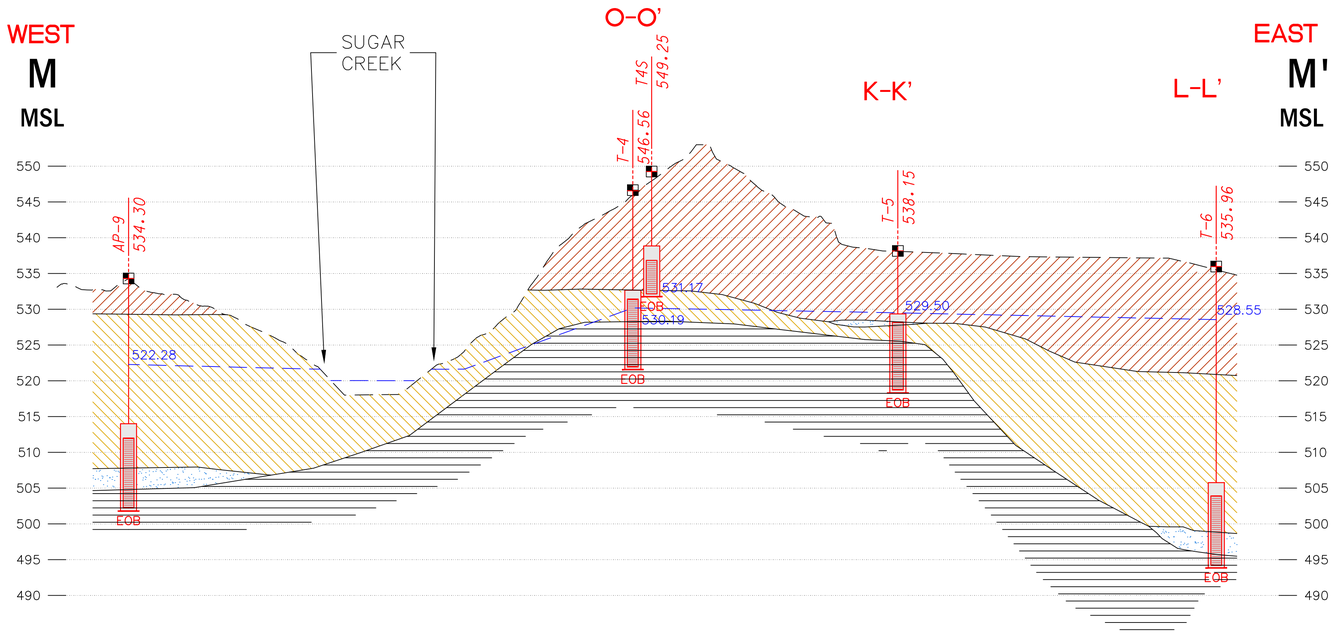
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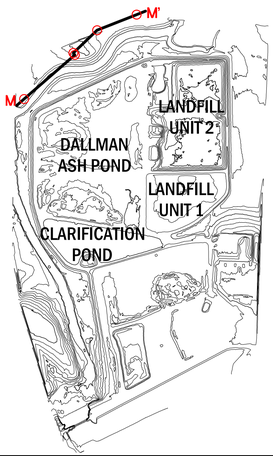
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L-L'

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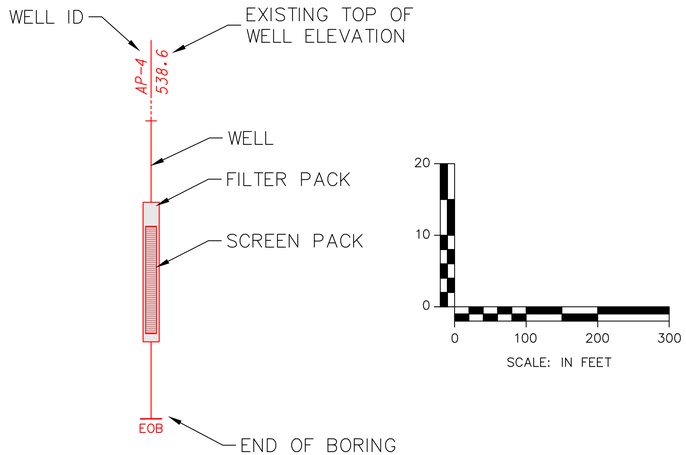


NOTES

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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 — GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION M-M'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

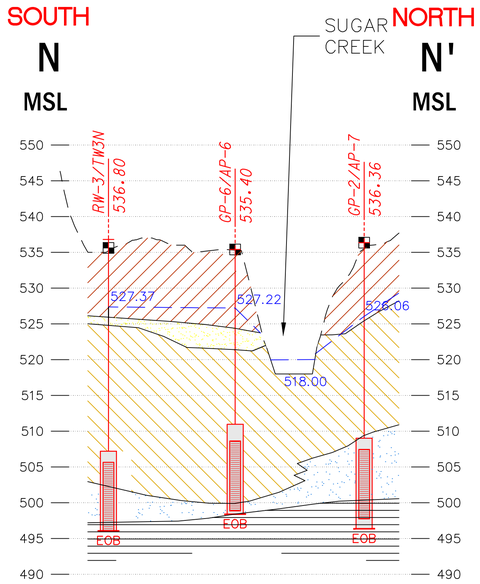
PROJECT ID: 240338/0014

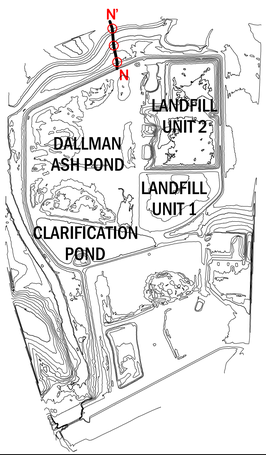
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M-M'

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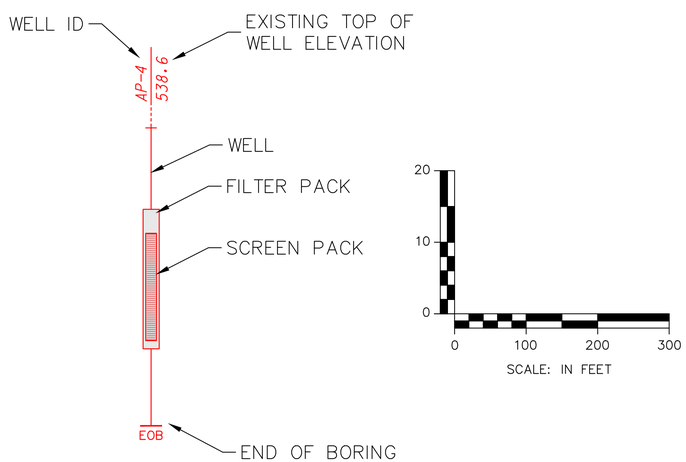


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LEGEND

- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION N-N'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

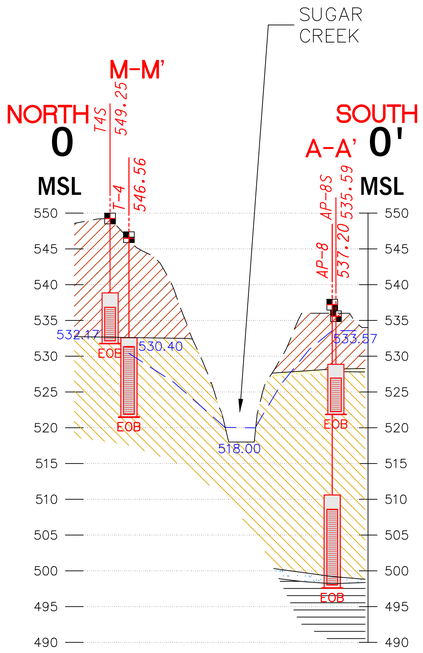
PROJECT ID: 240338/0014

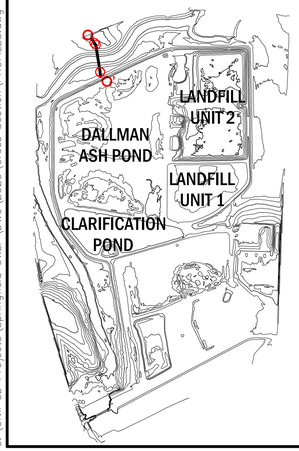
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N-N'

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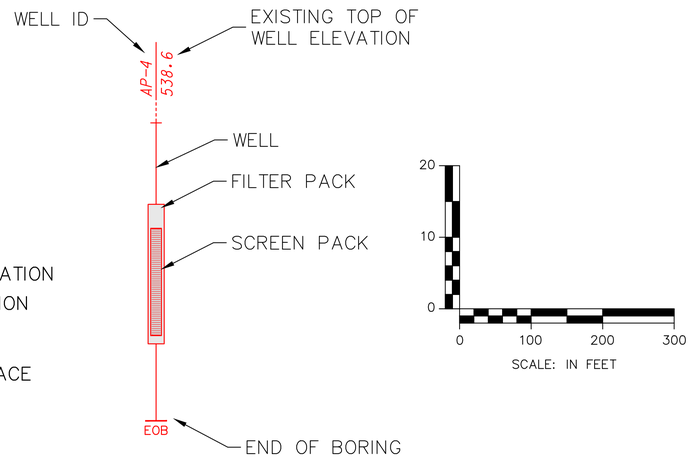


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LEGEND

- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION O-O'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

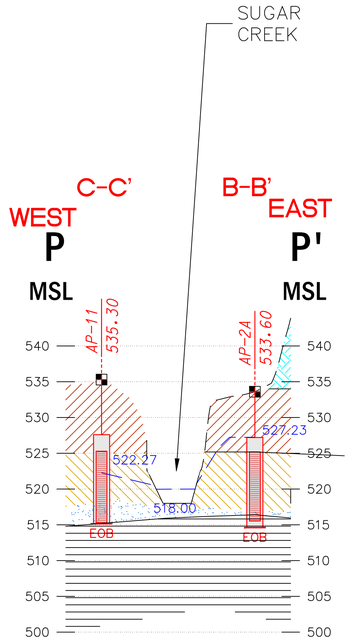
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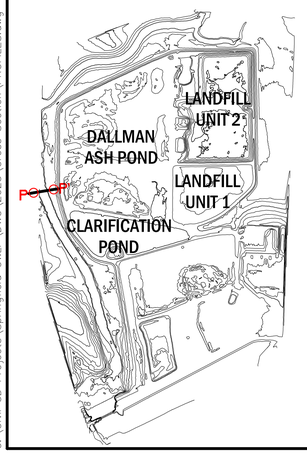
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O-O'

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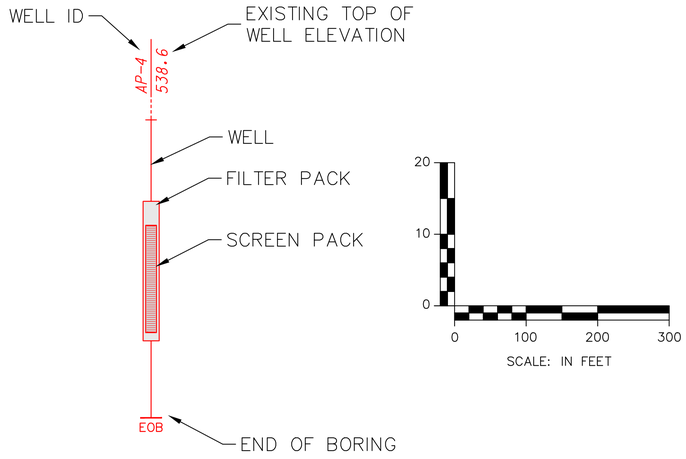


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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION P-P'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

PROJECT ID: 240338/0014

SHEET NUMBER:

P-P'

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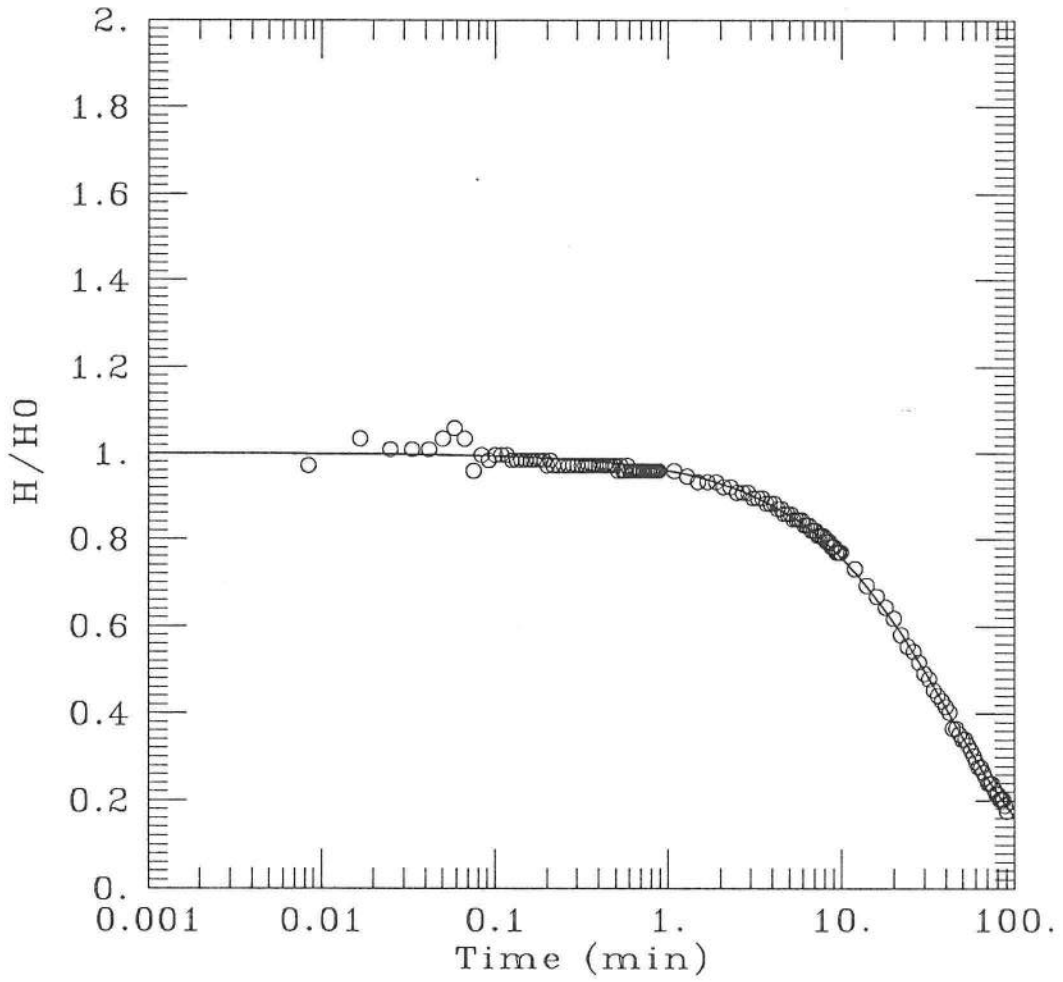
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APPENDIX D:
SLUG TEST/PACKER TEST DATA

SLUG TEST DATA

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-1S RECOVERY



DATA SET:
p-1s-r.aqt
03/13/93

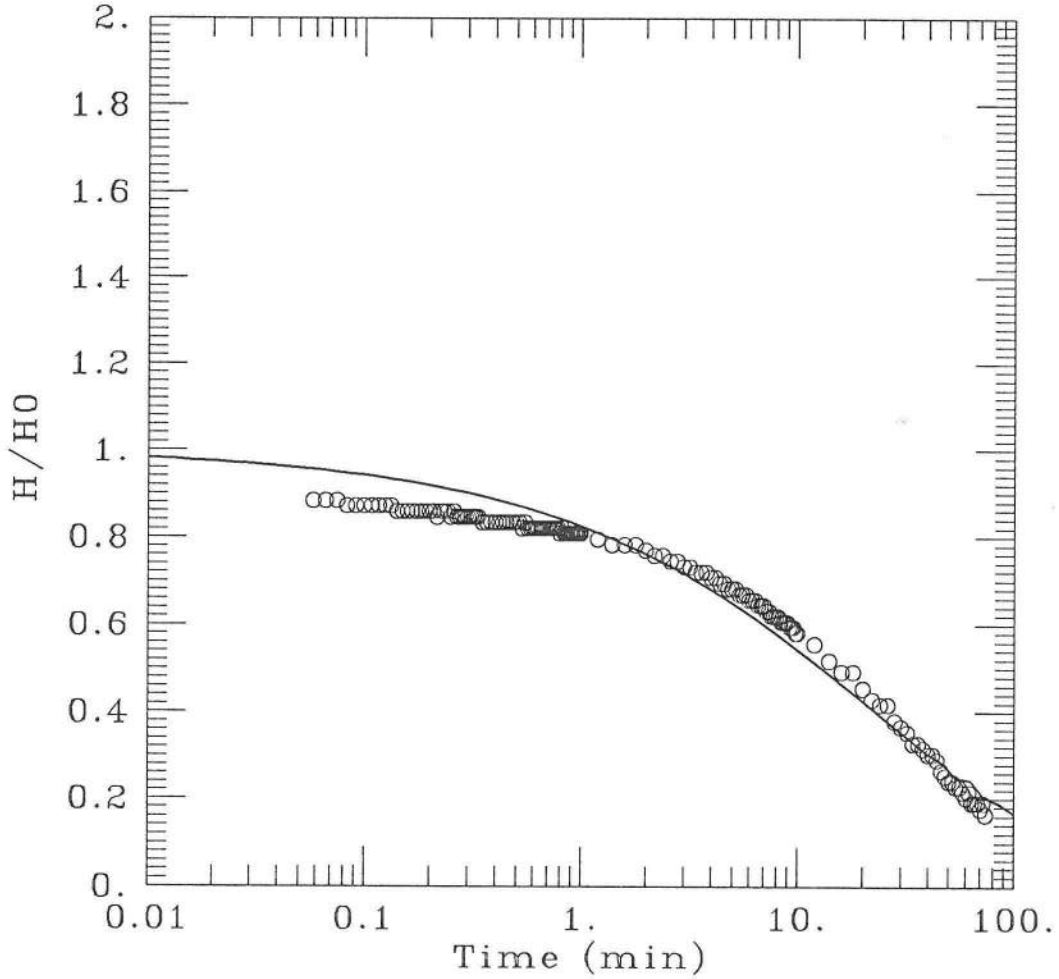
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
8/27/92

ESTIMATED PARAMETERS:
T = 0.0003291 ft^2/min
S = 3.3269E-05

TEST DATA:
HO = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-1S DRAWDOWN



DATA SET:
p-1s-d.aqt
03/13/93

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Cooper et al.

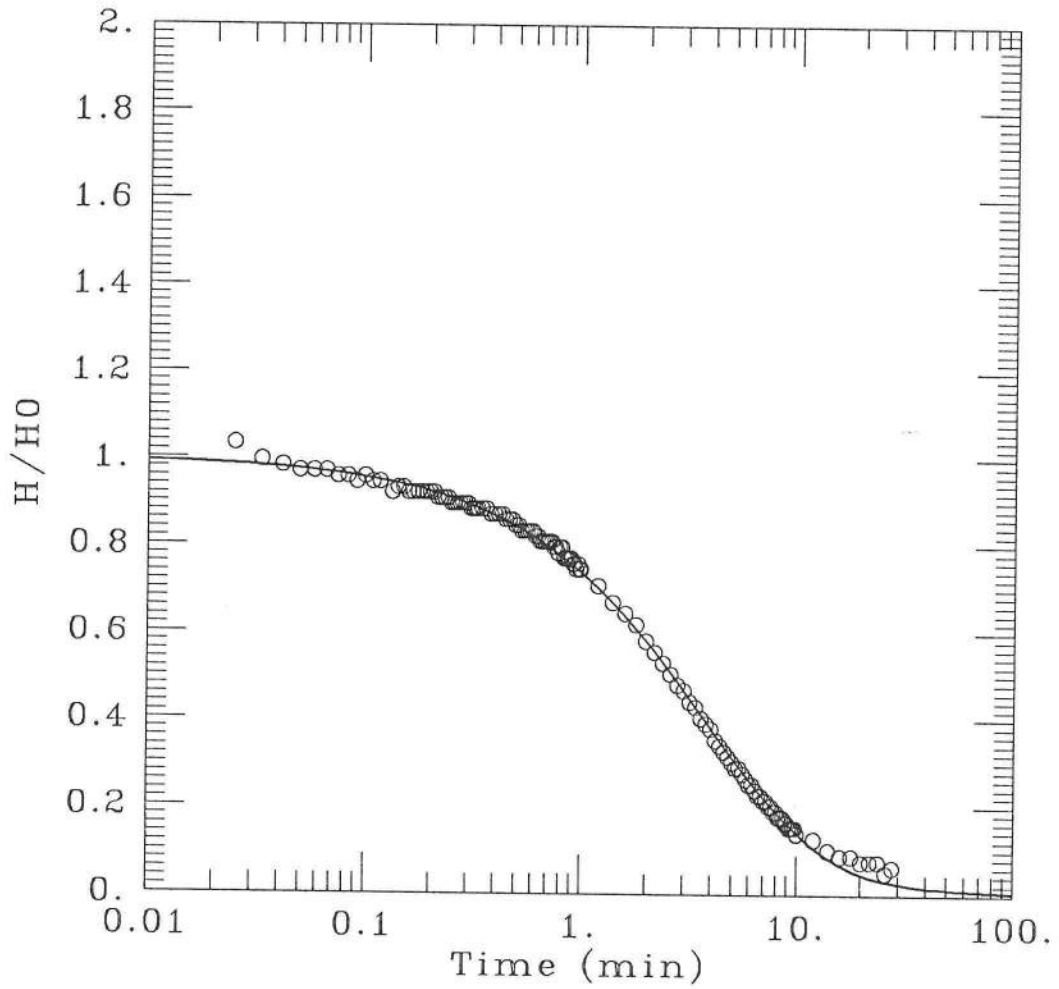
TEST DATE:
8/27/92

ESTIMATED PARAMETERS:
T = 8.6963E-05 ft^2/min
S = 0.03305

TEST DATA:
H0 = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-1D RECOVERY



DATA SET:
P-1D-R.AQT
03/13/93

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Cooper et al.

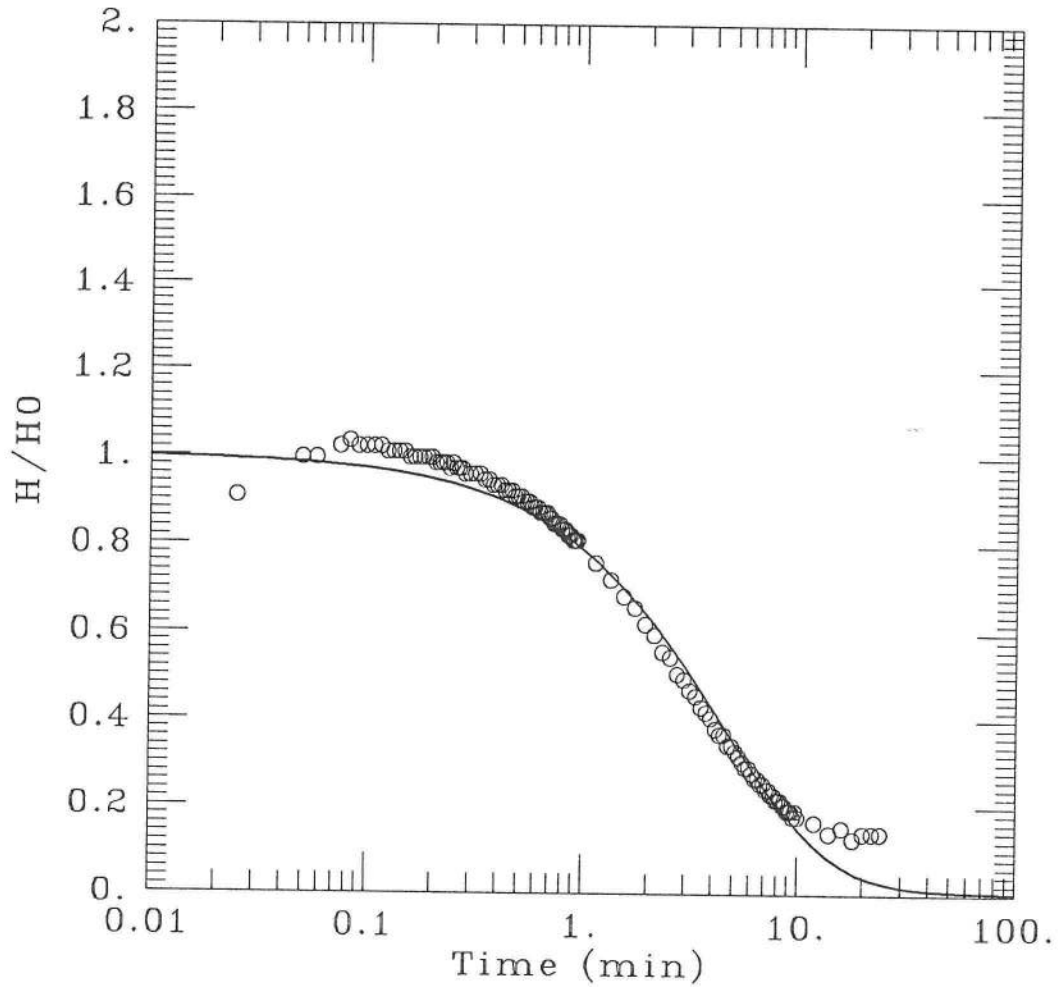
TEST DATE:
8/27/92

ESTIMATED PARAMETERS:
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S = 3.0237E-05

TEST DATA:
H0 = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-1D DRAWDOWN



DATA SET:
p-1d-d.aqt
03/13/93

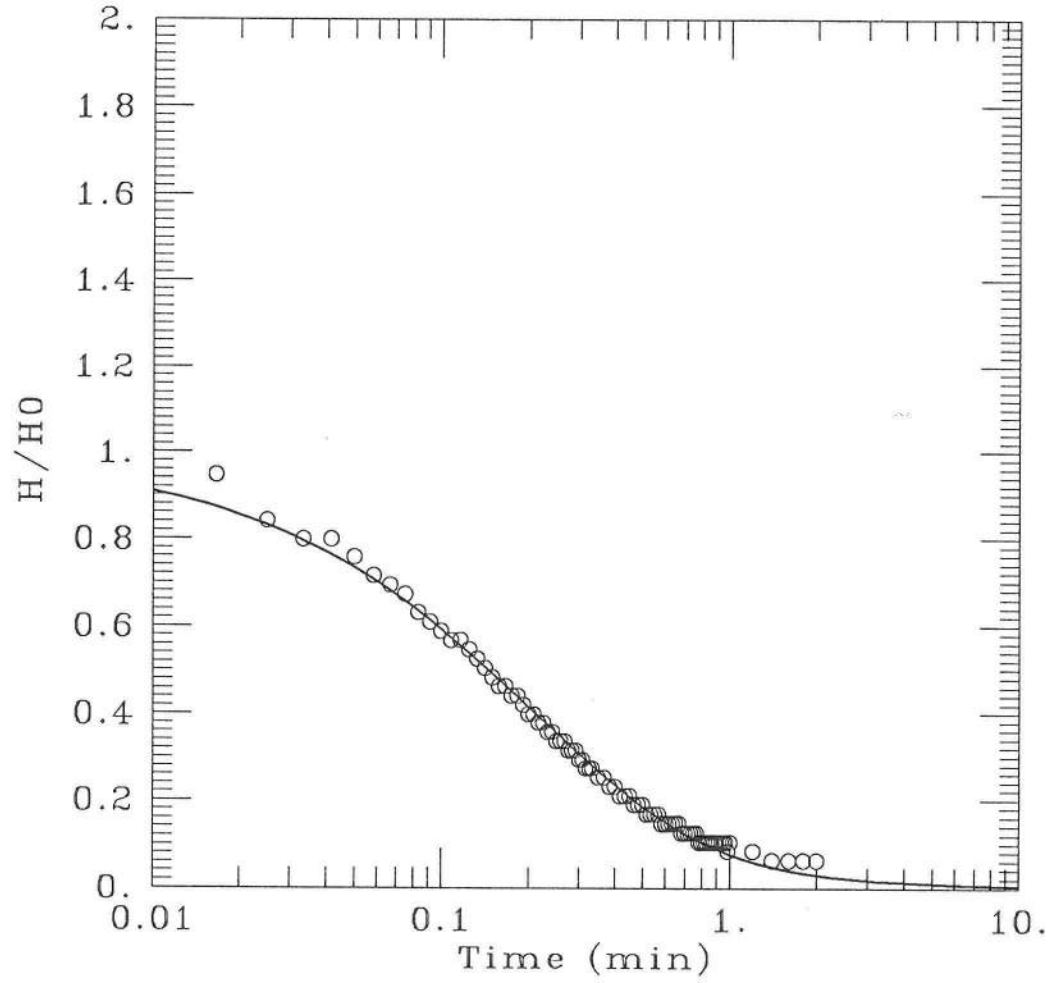
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
8/27/92

ESTIMATED PARAMETERS:
T = 0.006303 ft^2/min
S = 1.E-08

TEST DATA:
H0 = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-3S RECOVERY



DATA SET:
p-3s-r.aqt
03/13/93

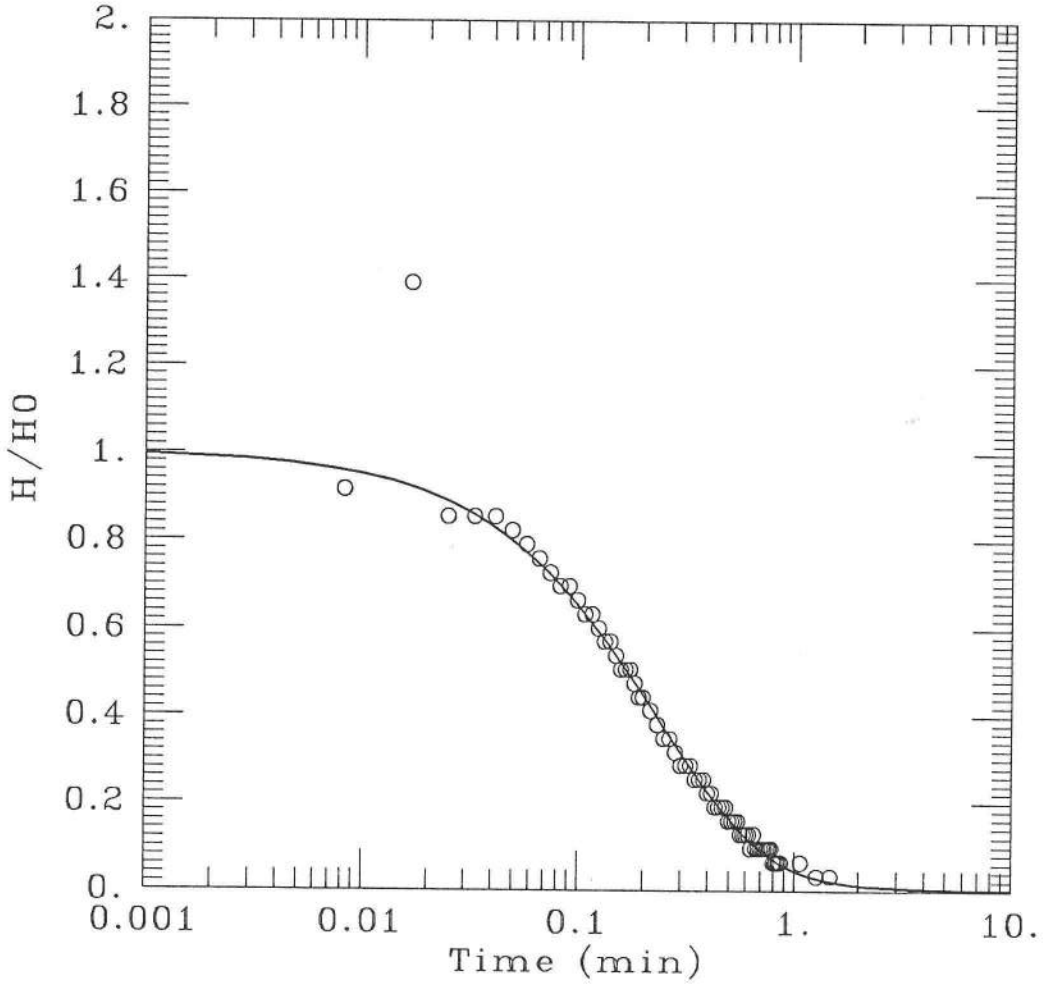
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
9/1/92

ESTIMATED PARAMETERS:
T = 0.04309 ft^2/min
S = 0.0004477

TEST DATA:
H0 = 0.75 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-3S DRAWDOWN



DATA SET:
p-3s-d.aqt
03/13/93

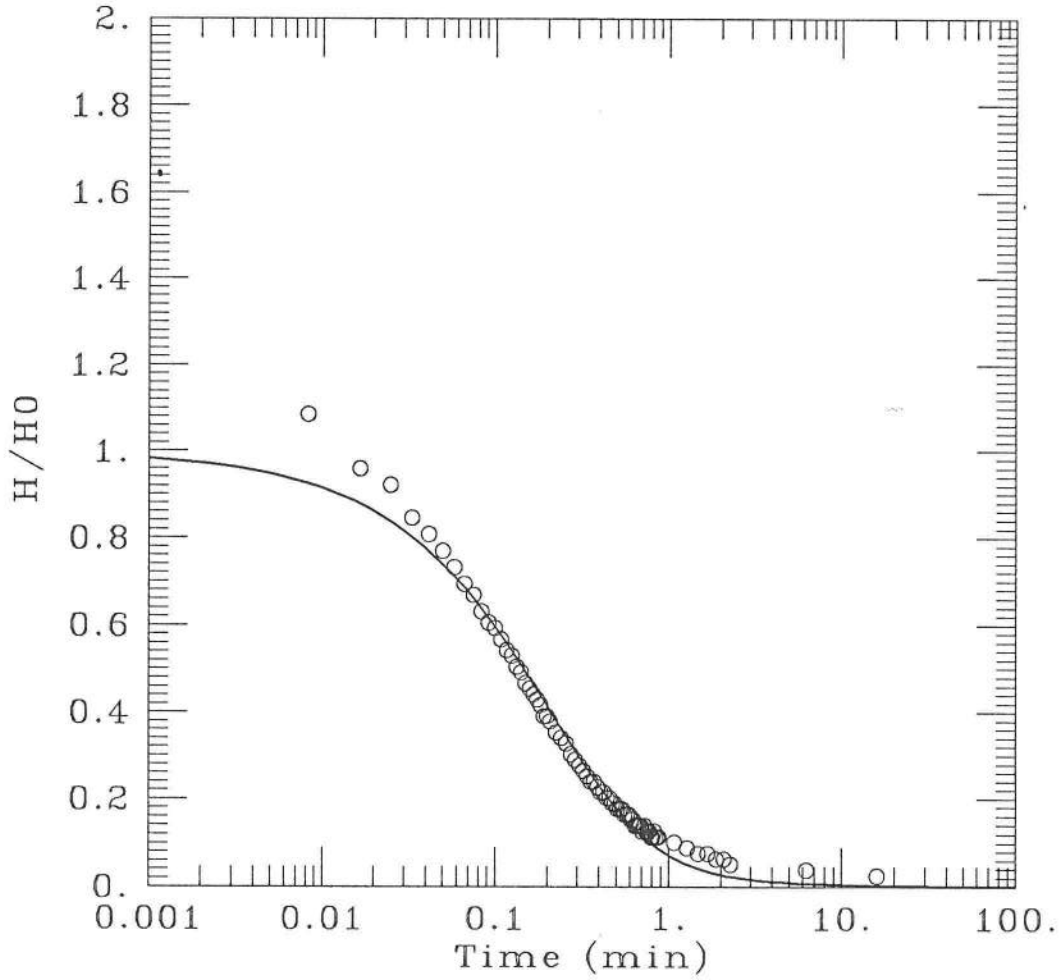
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
9/1/92

ESTIMATED PARAMETERS:
T = 0.119 ft^2/min
S = 1.E-08

TEST DATA:
HO = 0.5 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-3D RECOVERY



DATA SET:
P-3D-R.AQT
03/13/93

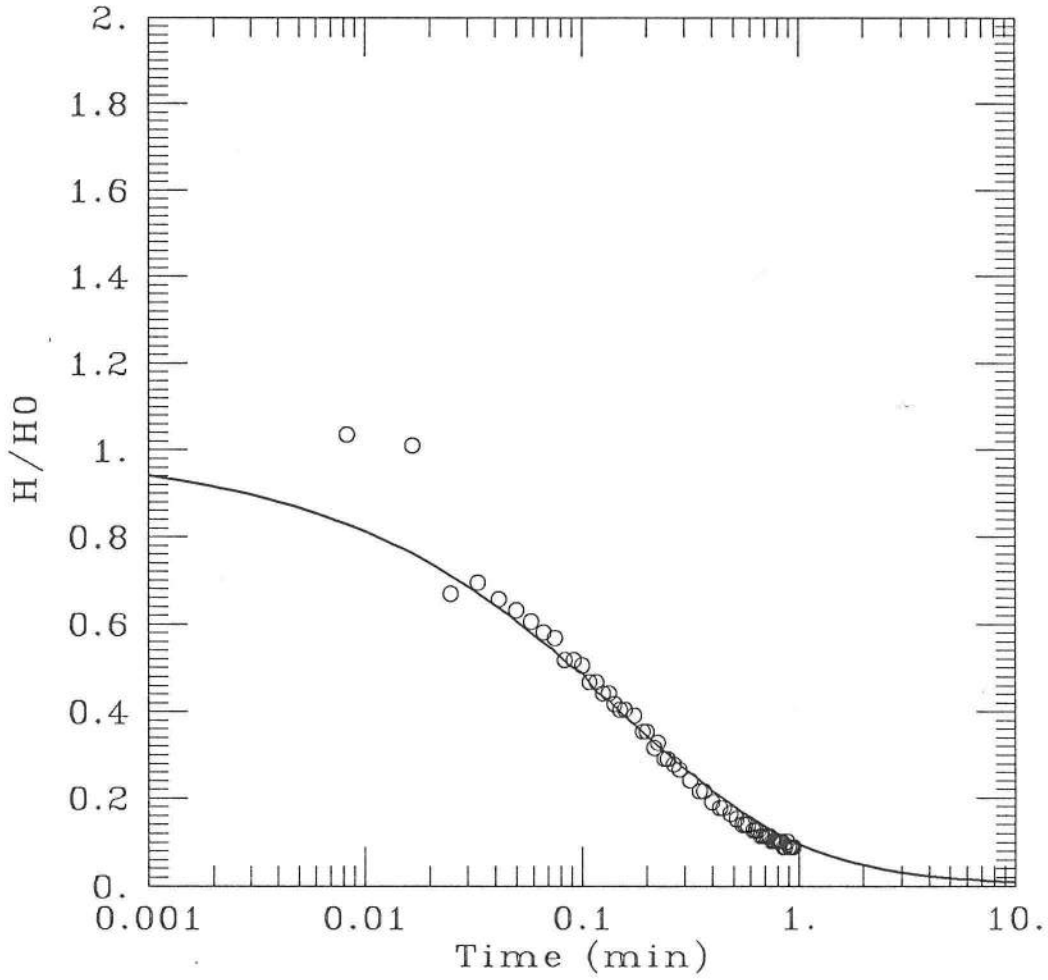
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
9/1/92

ESTIMATED PARAMETERS:
T = 0.04784 ft^2/min
S = 0.0002658

TEST DATA:
HO = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-3D DRAWDOWN



DATA SET:
P-3D-D.AQT
03/13/93

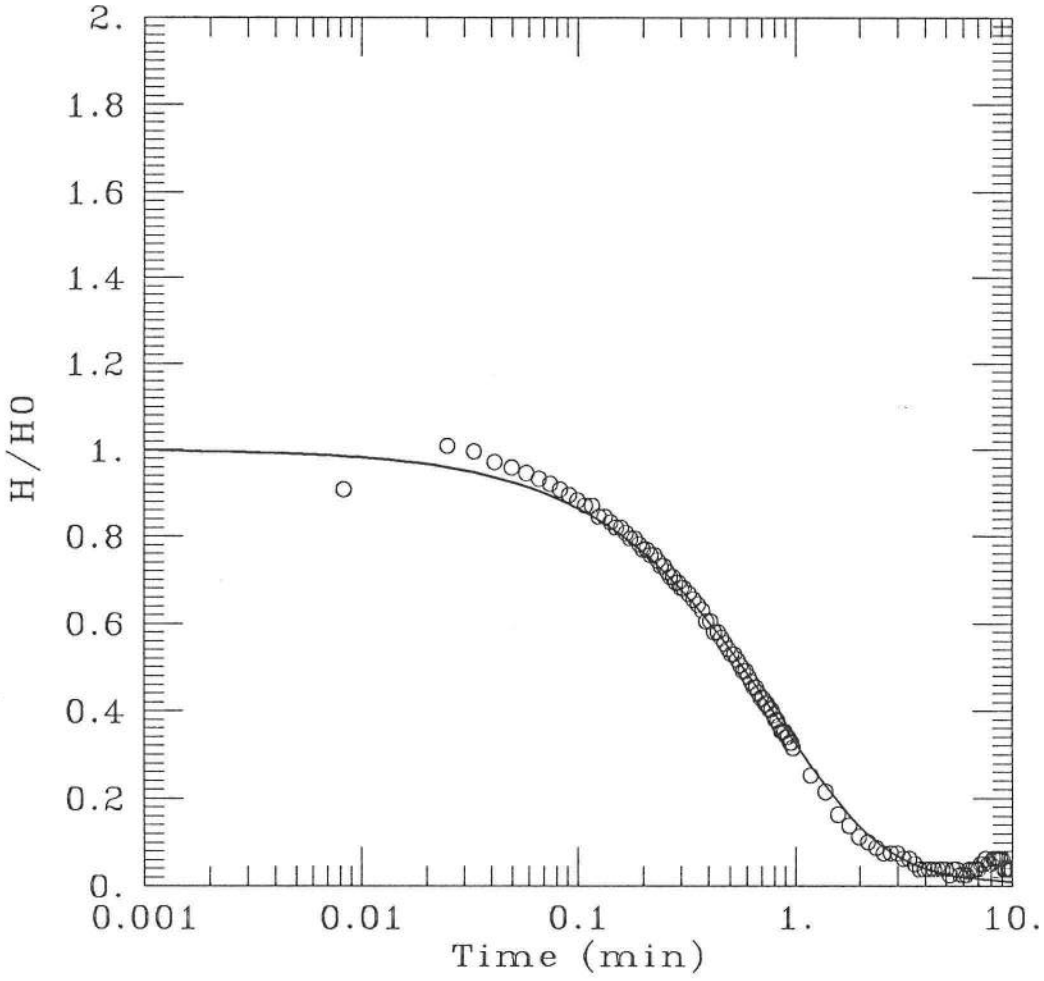
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
9/1/92

ESTIMATED PARAMETERS:
T = 0.02173 ft^2/min
S = 0.01321

TEST DATA:
H0 = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-4 RECOVERY



DATA SET:
P-4-R.AQT
03/13/93

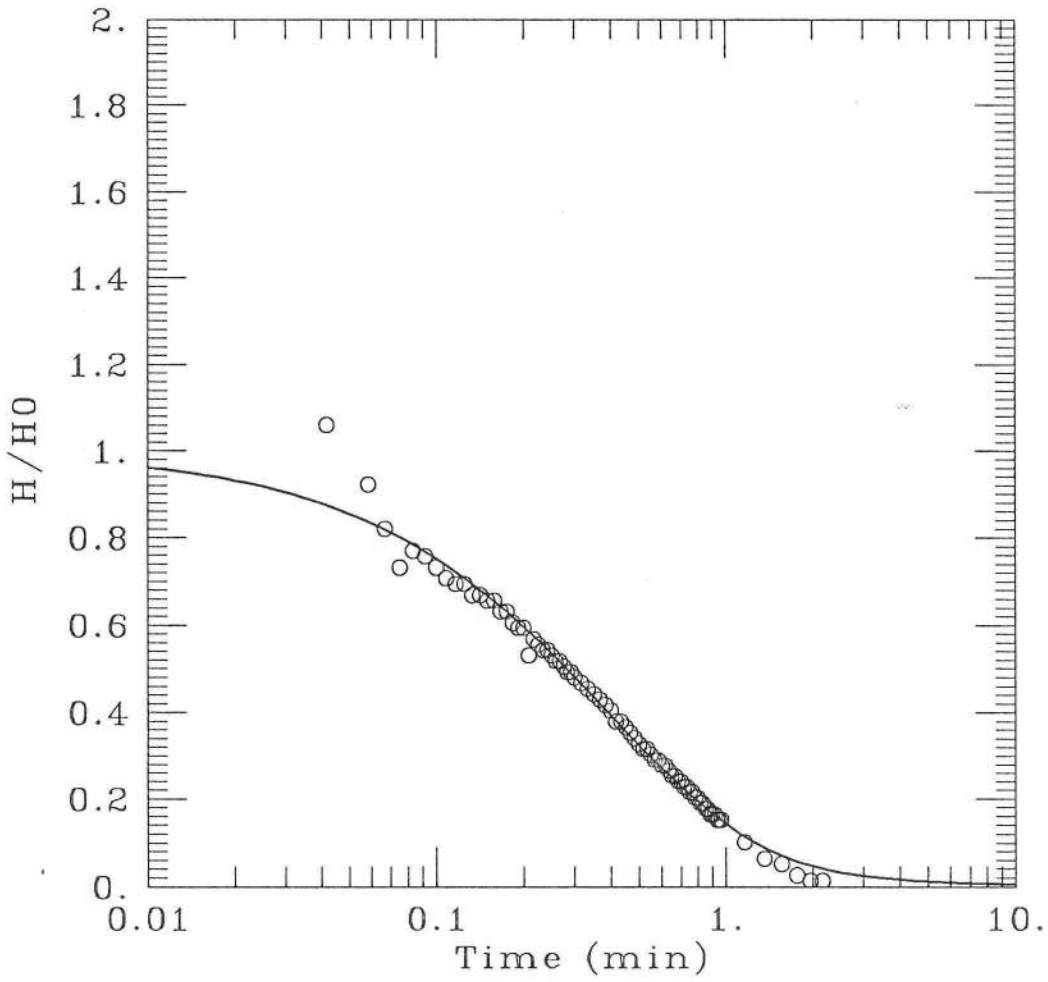
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
9/1/92

ESTIMATED PARAMETERS:
T = 0.02555 ft^2/min
S = 7.9368E-07

TEST DATA:
H0 = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-4 DRAWDOWN



DATA SET:
P-4-D.AQT
03/13/93

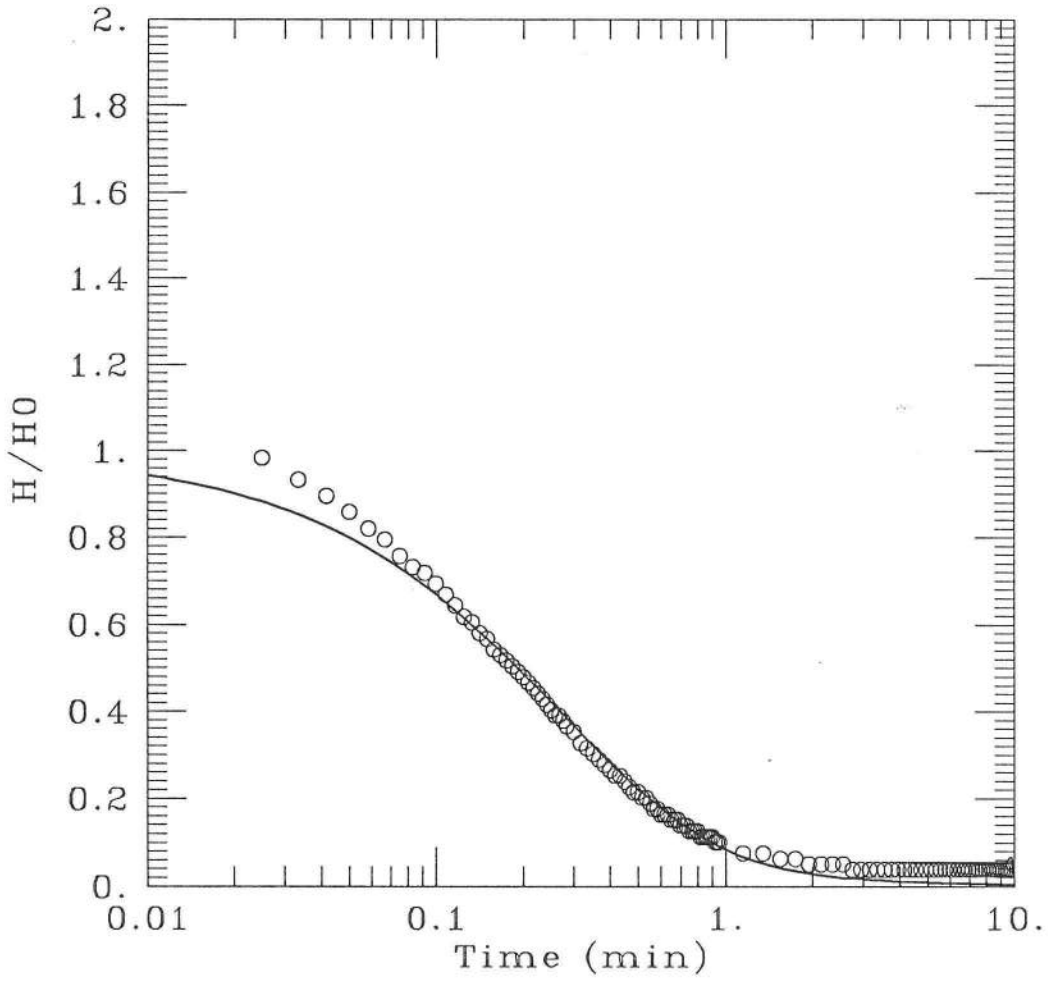
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
9/1/92

ESTIMATED PARAMETERS:
T = 0.03979 ft^2/min
S = 1.1213E-05

TEST DATA:
H0 = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-5D RECOVERY



DATA SET:
P-5D-R.AQT
03/14/93

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Cooper et al.

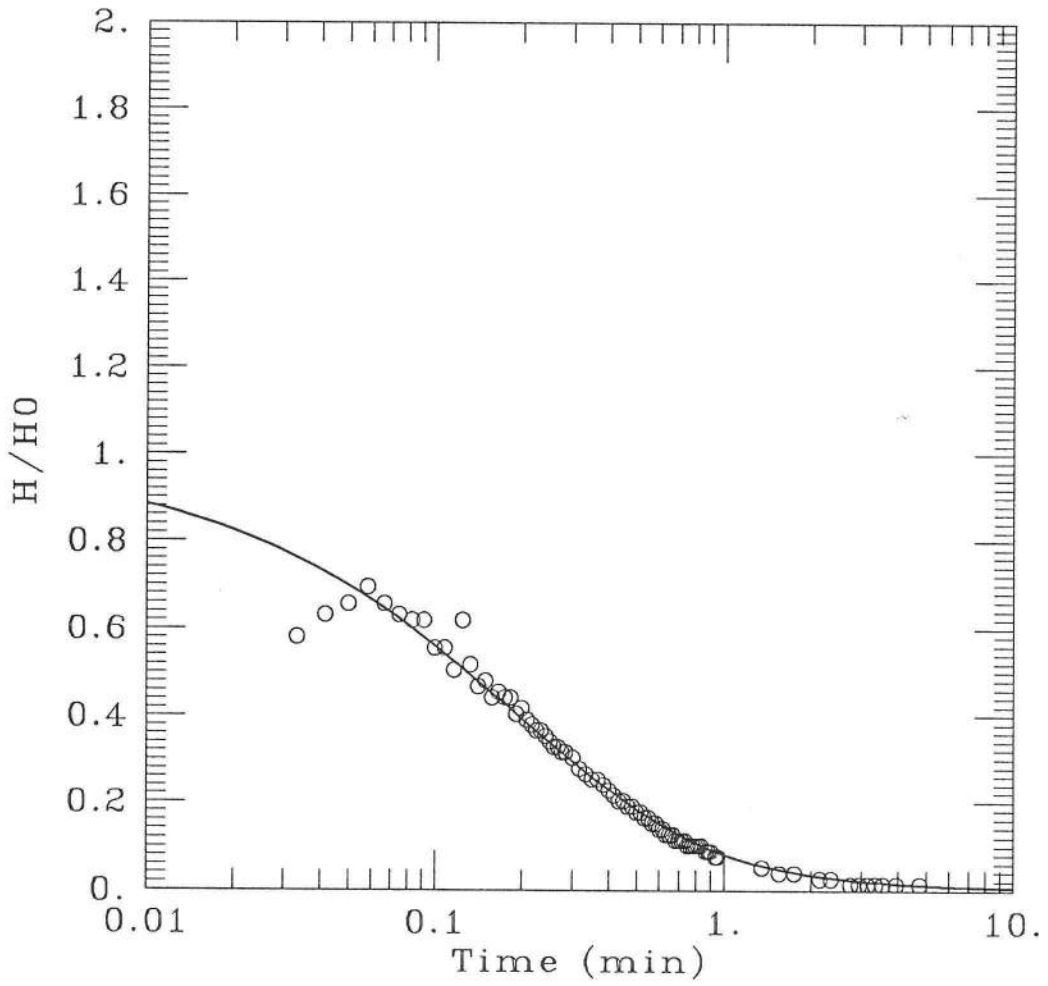
TEST DATE:
9/1/92

ESTIMATED PARAMETERS:
T = 0.05179 ft^2/min
S = 2.962E-05

TEST DATA:
H0 = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-5D DRAWDOWN

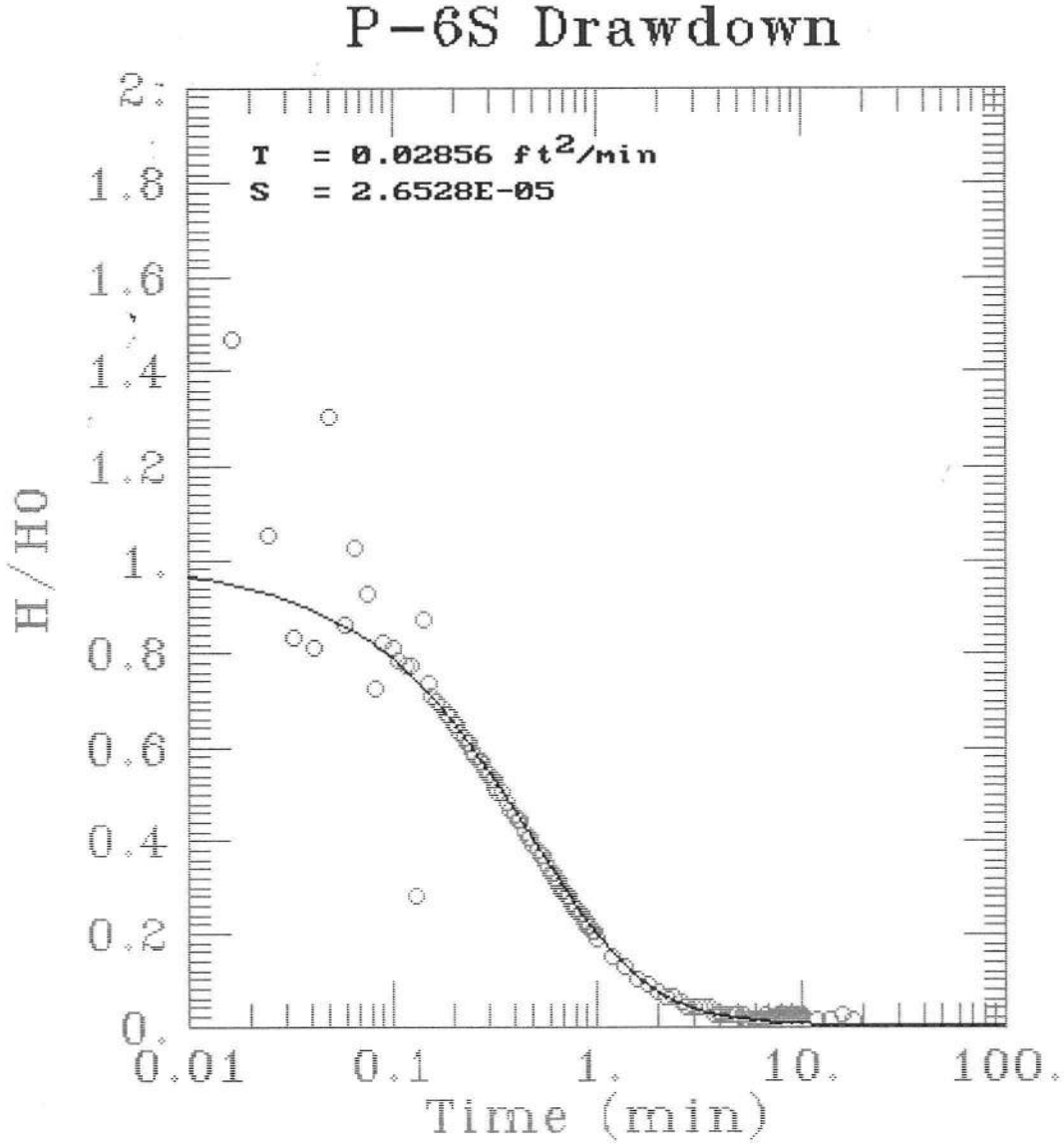


DATA SET:
P-5D-D.AQT
03/14/93

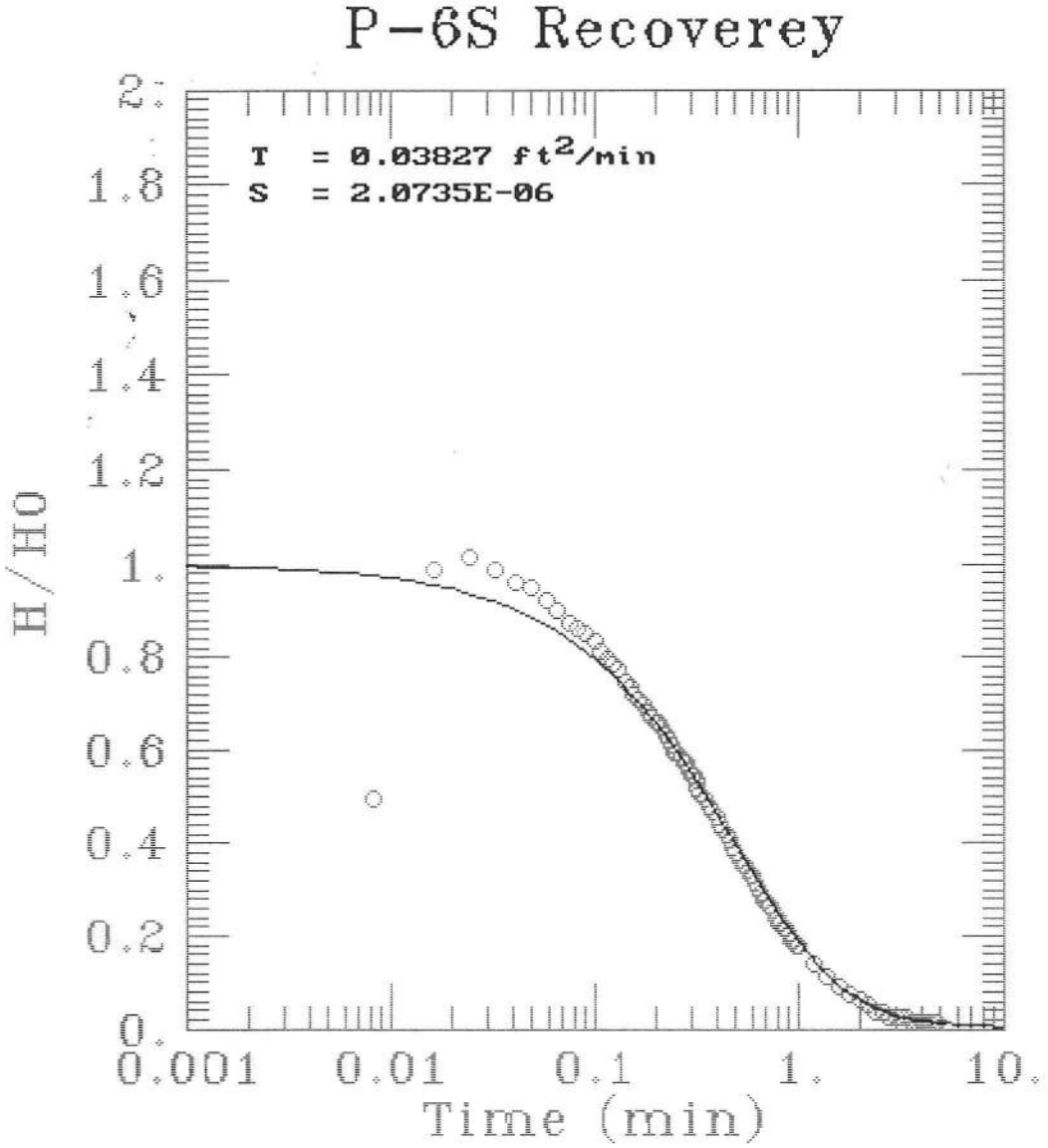
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
9/1/92

ESTIMATED PARAMETERS:
T = 0.03556 ft^2/min
S = 0.001533

TEST DATA:
H0 = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft


P-6S Drawdown
T = 0.02856 ft²/min
S = 2.6528E-05
H/H0
2.
1.8
1.6
1.4
1.2
1.
0.8
0.6
0.4
0.2
0.
0.01
0.1
1.
10.
100.
Time (min)

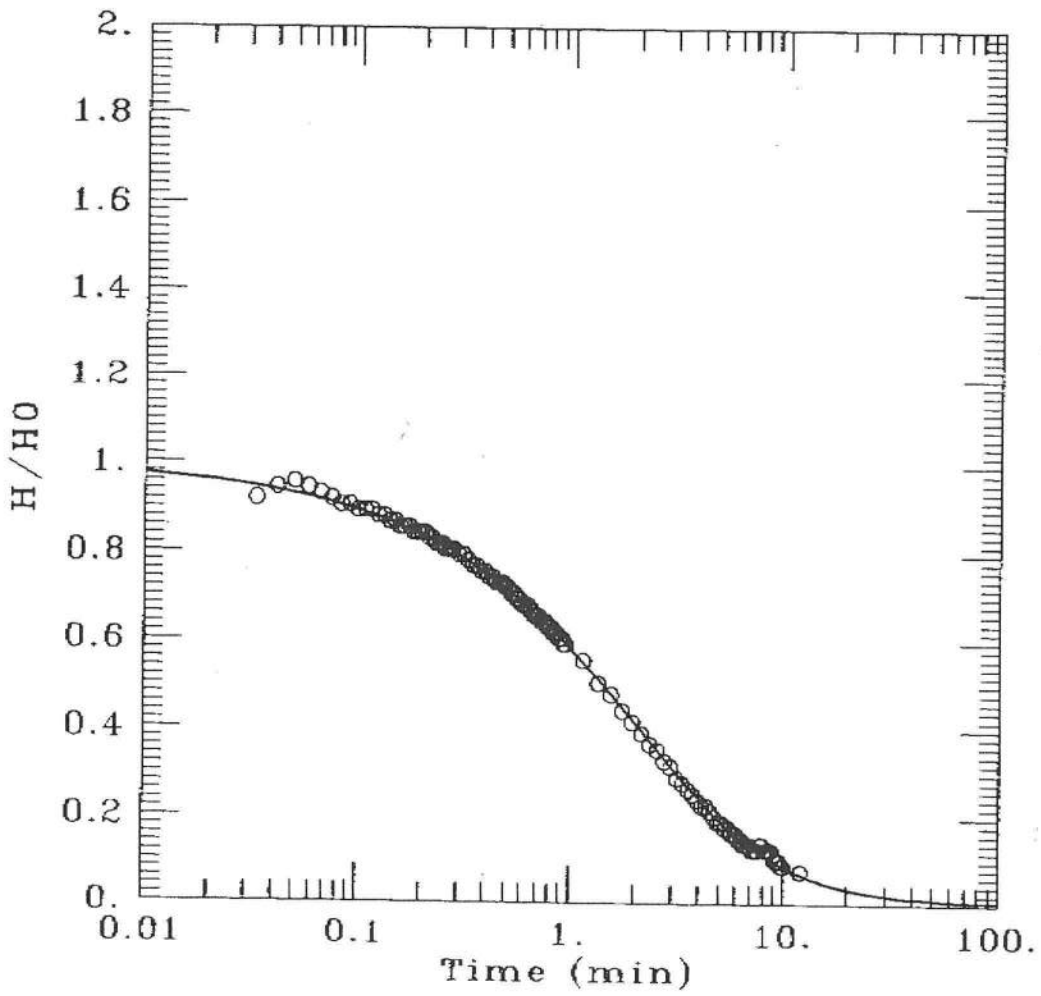
DRAFT


P-6S Recoverey
T = 0.03827 ft²/min
S = 2.0735E-06
H/H0
2.
1.8
1.6
1.4
1.2
1.
0.8
0.6
0.4
0.2
0.
0.001
0.01
0.1
1.
10.
Time (min)

DRAFT

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-7S RECOVERY



DATA SET:
P-7S-R.AQT
03/14/93

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Cooper et al.

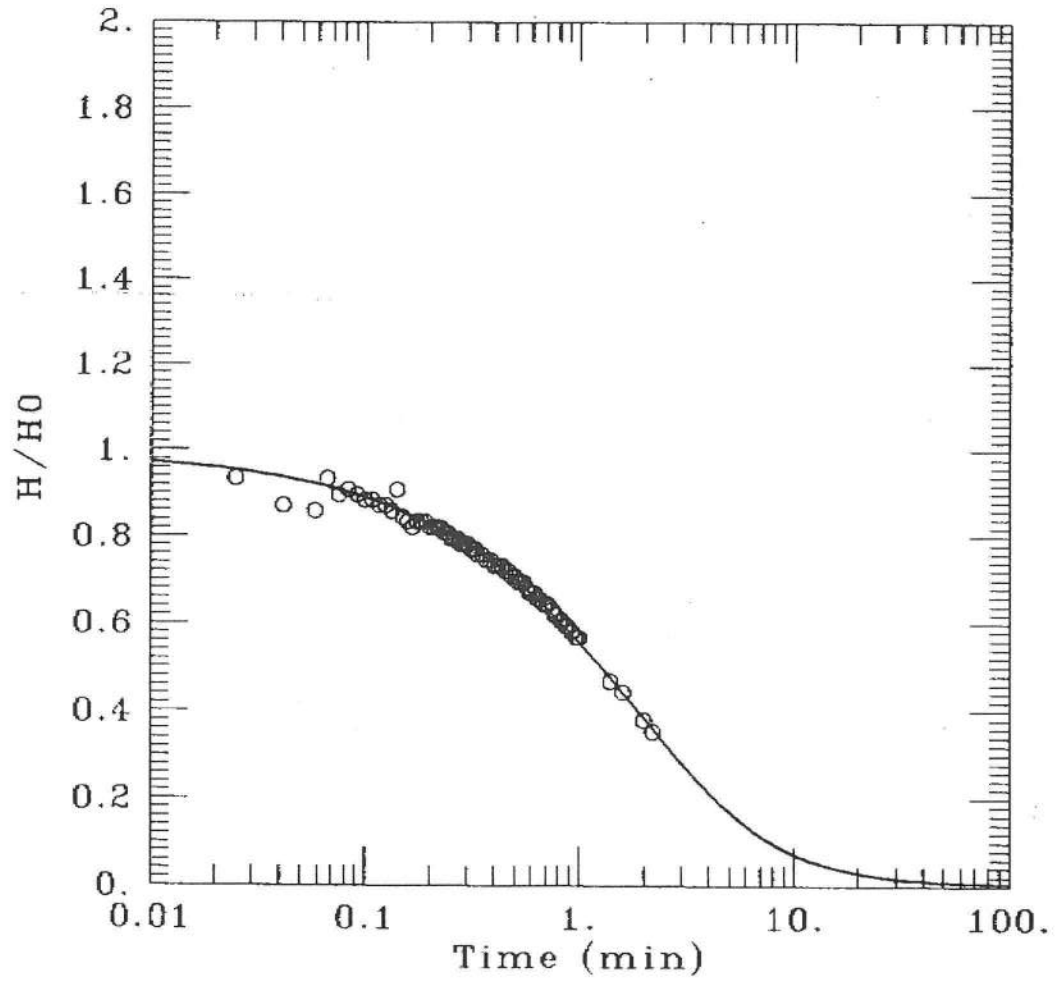
TEST DATE:
10/5/92

ESTIMATED PARAMETERS:
T = 0.003566 ft^2/min
S = 0.001063

TEST DATA:
HO = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-7S DRAWDOWN



DATA SET:
P-7S-D.AQT
03/14/93

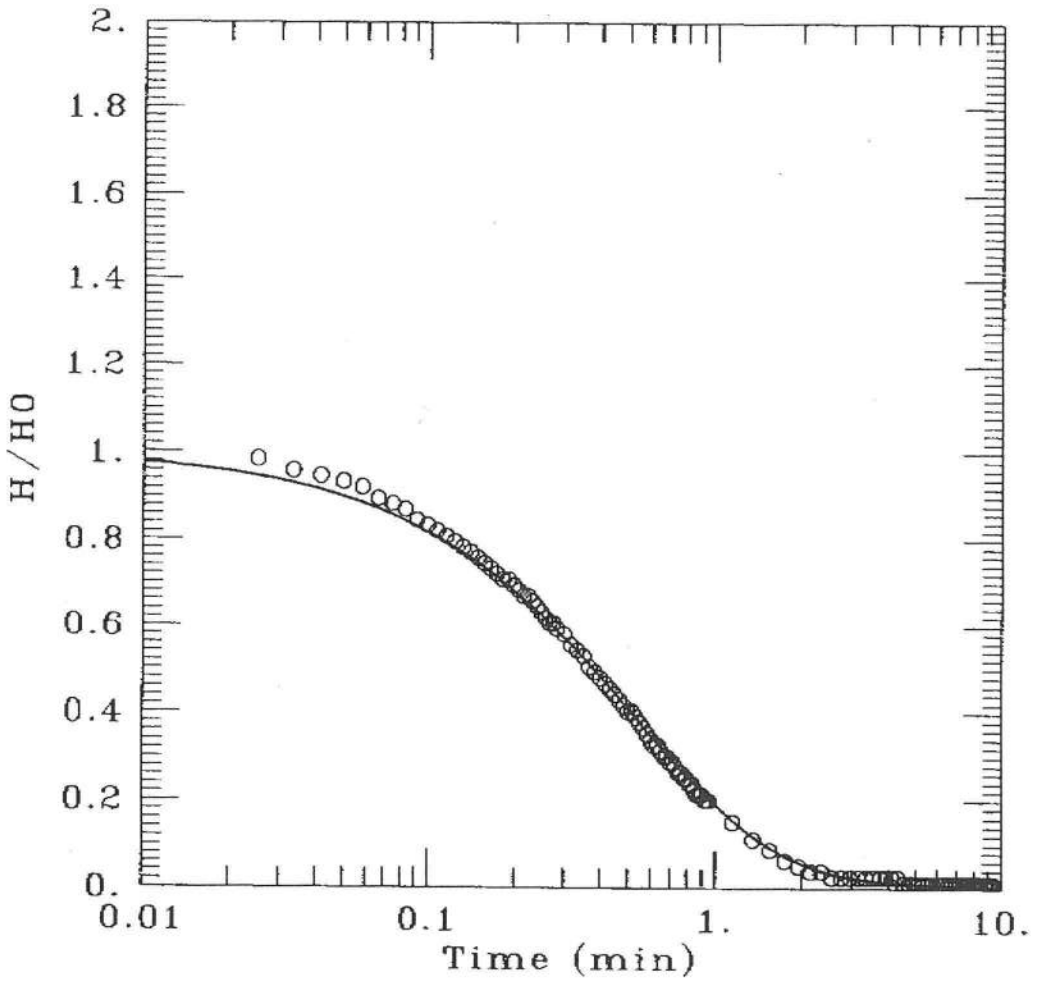
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
10/5/92

ESTIMATED PARAMETERS:
T = 0.004152 ft^2/min
S = 0.0009301

TEST DATA:
HO = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-7D RECOVERY



DATA SET:
P-7D-R.AQT
03/14/93

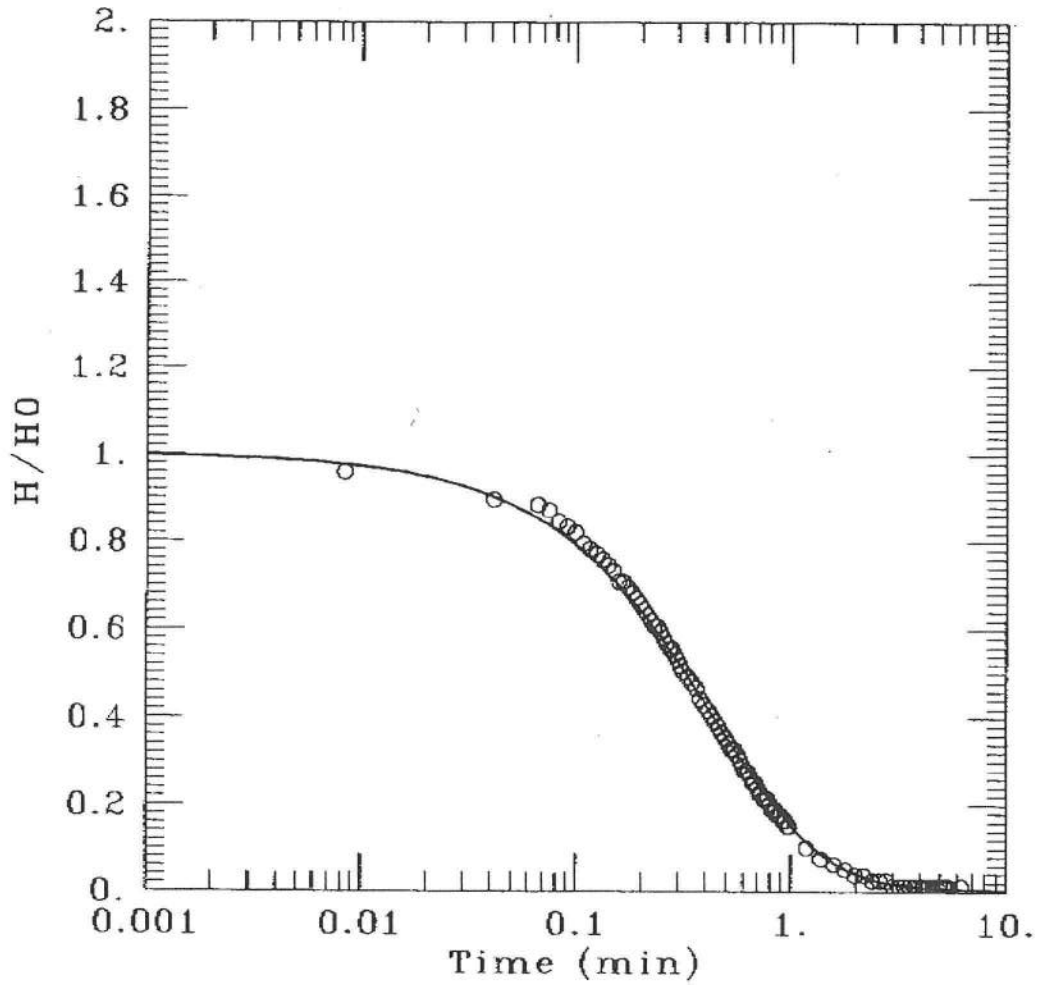
AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
10/5/92

ESTIMATED PARAMETERS:
T = 0.05323 ft^2/min
S = 1.E-08

TEST DATA:
H0 = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-7D DRAWDOWN

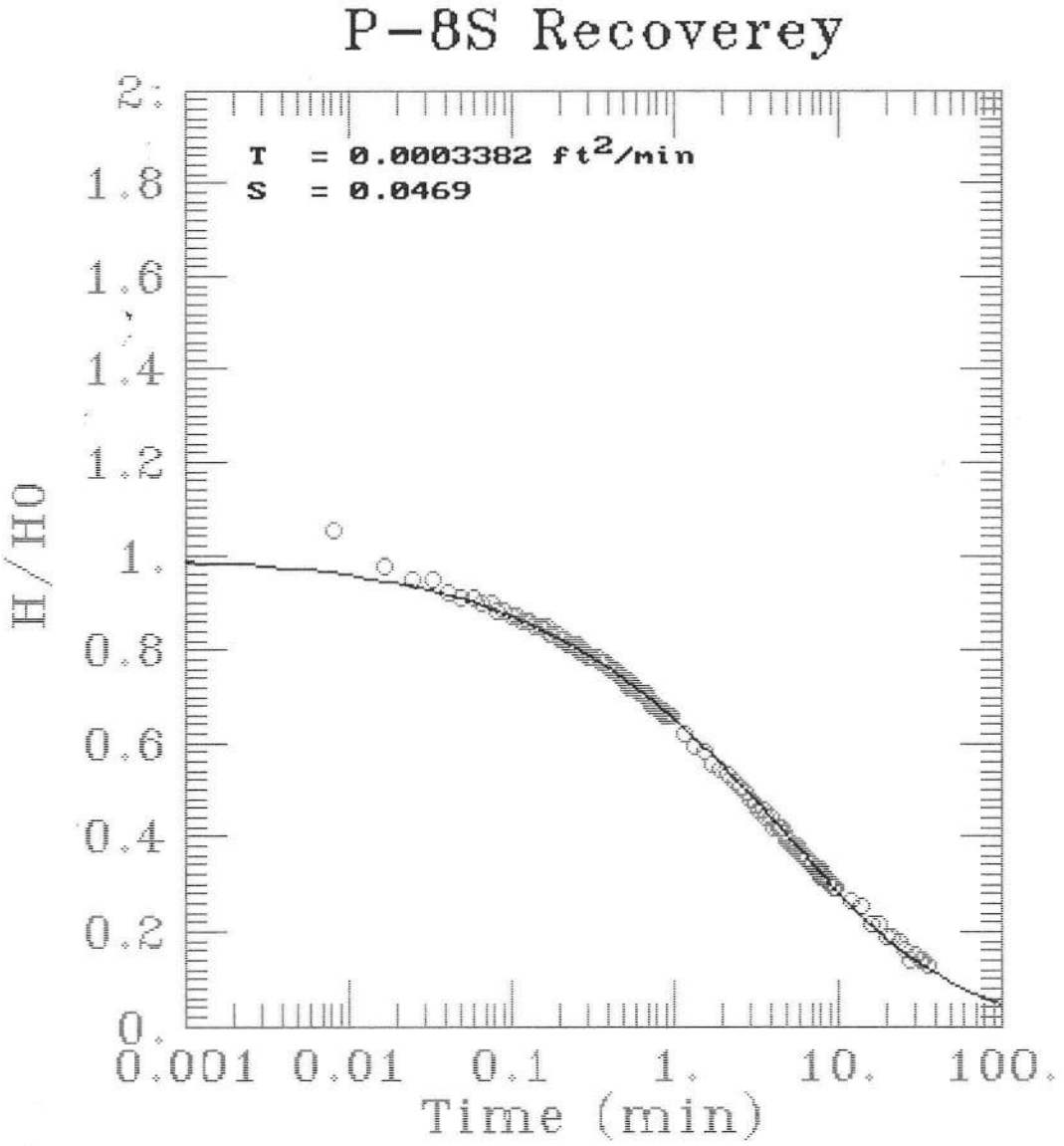


DATA SET:
P-7D-D.AQT
03/14/93

AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
10/5/92

ESTIMATED PARAMETERS:
T = 0.06182 ft^2/min
S = 1.E-08

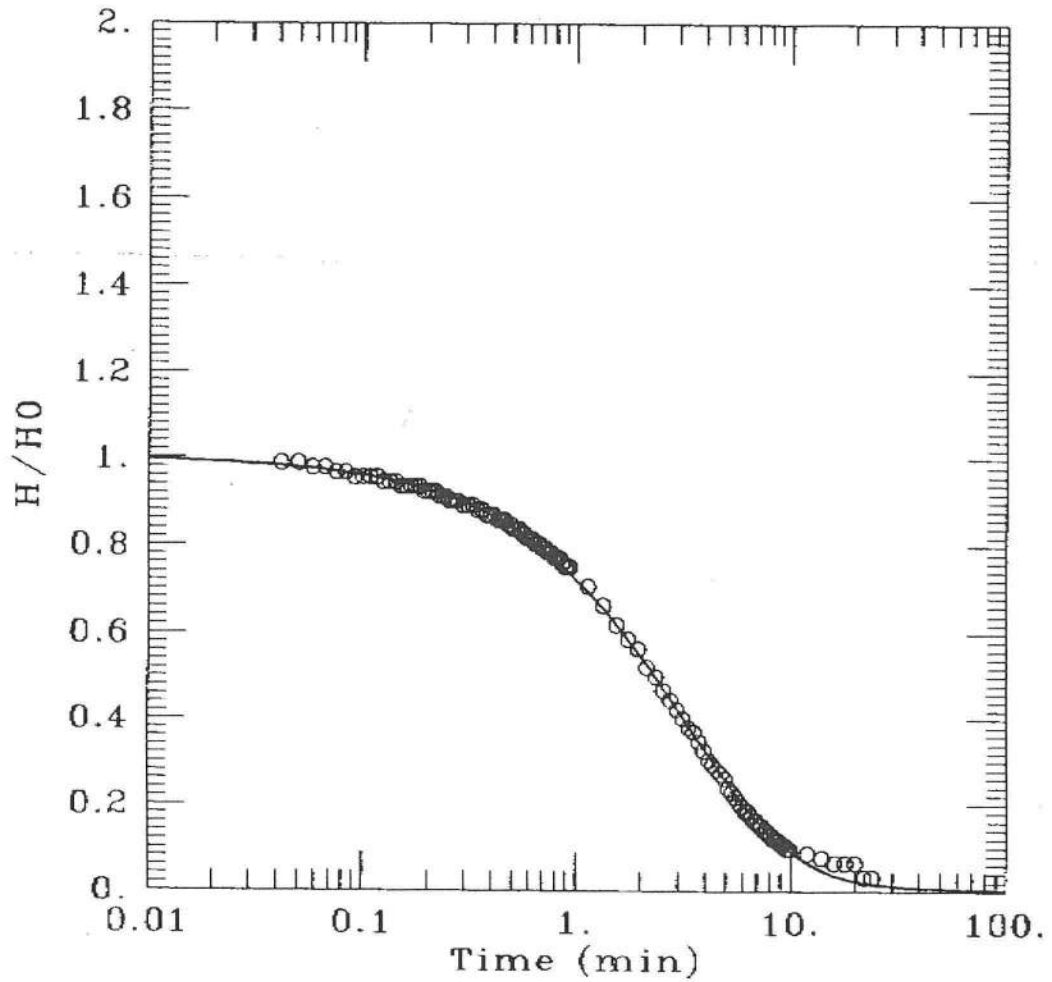
TEST DATA:
HO = 1.25 ft
rc = 0.083 ft
rw = 0.344 ft


P-8S Recoverey
T = 0.0003382 ft²/min
S = 0.0469
H/HO
2.
1.8
1.6
1.4
1.2
1.
0.8
0.6
0.4
0.2
0.
0.001
0.01
0.1
1.
10.
100.
Time (min)

DRAFT

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-9D RECOVERY



DATA SET:
P-9D-R.AQT
03/14/93

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Cooper et al.

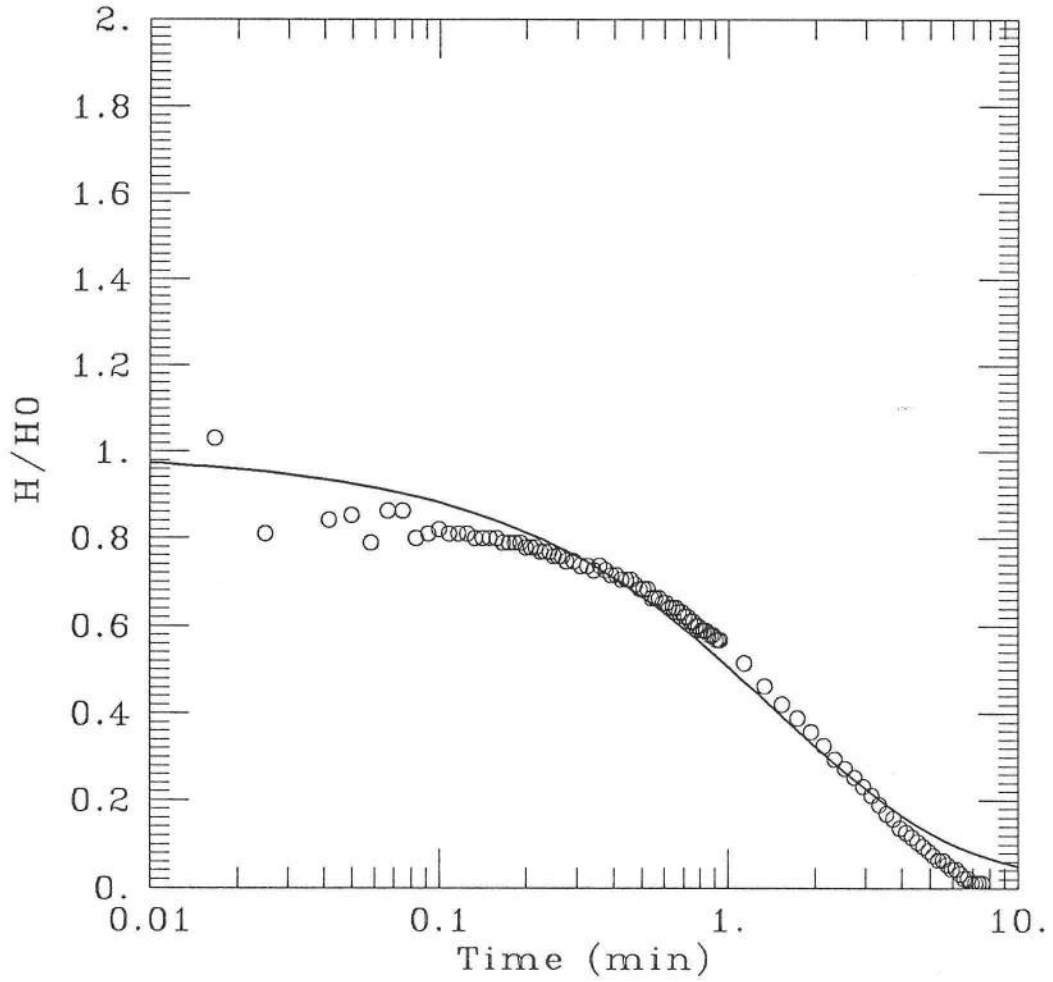
TEST DATE:
8/31/92

ESTIMATED PARAMETERS:
T = 0.007533 ft^2/min
S = 1.6923E-07

TEST DATA:
H0 = 1.45 ft
rc = 0.083 ft
rw = 0.344 ft

PATRICK ENGINEERING INC.	Client: CITY WATER, LIGHT & POWER
Project No.: 496B	Location: SPRINGFIELD, ILLINOIS

P-9D DRAWDOWN

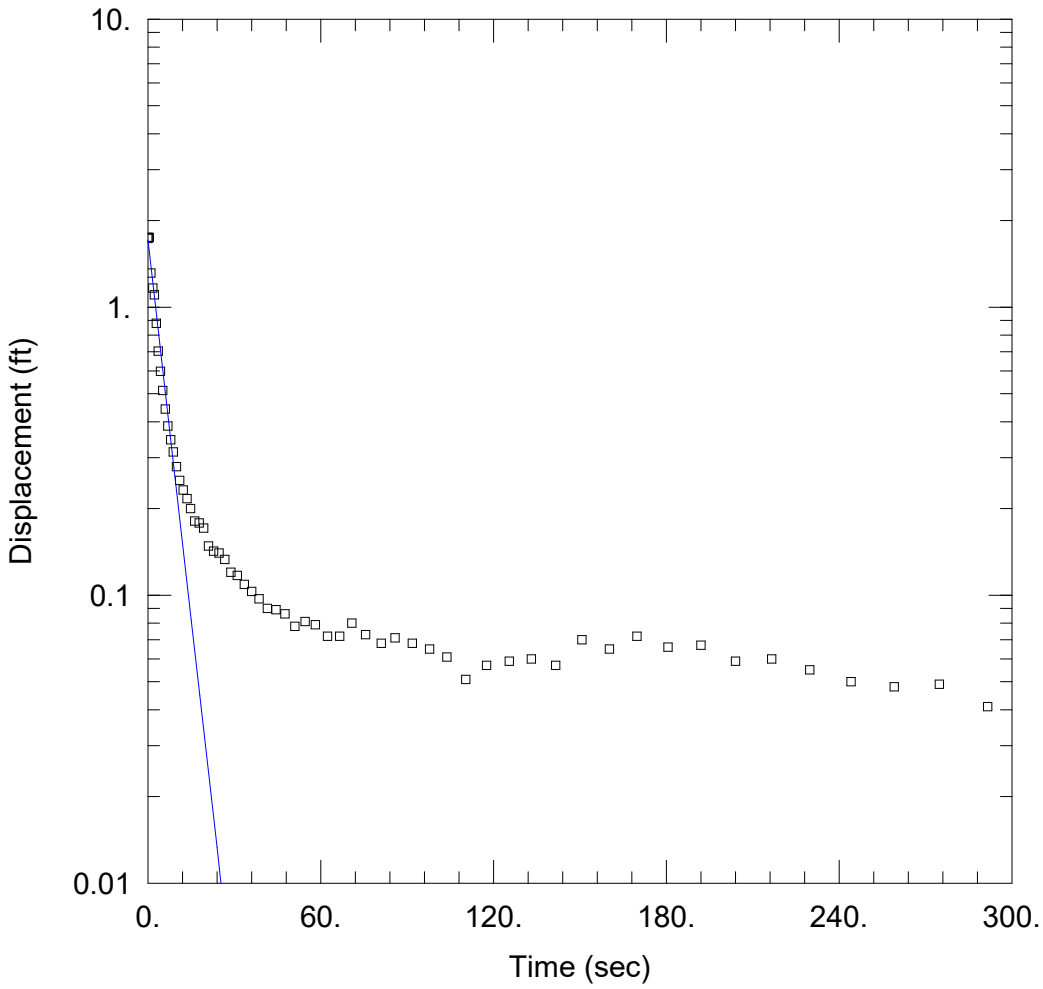


DATA SET:
P-9D-D.AQT
03/14/93

AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.
TEST DATE:
8/31/92

ESTIMATED PARAMETERS:
T = 0.005745 ft^2/min
S = 0.0005814

TEST DATA:
H0 = 1.5 ft
rc = 0.083 ft
rw = 0.344 ft



P03S DRAWDOWN

Data Set: J:\...\P03S Drawdown.aqt
Date: 09/02/25 Time: 10:09:16

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: P03S
Test Date: 8-29-25

AQUIFER DATA

Saturated Thickness: 5.64 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (P03S)

Initial Displacement: 1.75 ft
Total Well Penetration Depth: 5.26 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 5.62 ft
Screen Length: 4.67 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.008191 cm/sec y0 = 1.709 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\P03S\P03S Drawdown.
Title: P03S Drawdown
Date: 09/02/25
Time: 10:09:28

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-29-25
Test Well: P03S

AQUIFER DATA

Saturated Thickness: 5.64 ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: P03S

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 1.75 ft
Static Water Column Height: 5.62 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.67 ft
Total Well Penetration Depth: 5.26 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.06471 ft
Gravel Pack Porosity: 0.

No. of Observations: 62

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.73	44.46	0.089
0.48	1.744	47.64	0.086
1.08	1.312	51.	0.078
1.68	1.164	54.6	0.081
2.28	1.103	58.2	0.079
2.94	0.879	62.4	0.072
3.66	0.703	66.6	0.072
4.44	0.599	70.8	0.08
5.22	0.513	75.6	0.073
6.06	0.443	81.	0.068
6.96	0.387	85.8	0.071
7.92	0.346	91.8	0.068
8.88	0.314	97.8	0.065
9.96	0.279	103.8	0.061

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
11.1	0.25	110.4	0.051
12.3	0.232	117.6	0.057
13.56	0.216	125.4	0.059
14.88	0.2	133.2	0.06
16.32	0.181	141.6	0.057
17.82	0.178	150.7	0.07
19.38	0.171	160.3	0.065
21.06	0.148	169.9	0.072
22.86	0.142	180.7	0.066
24.72	0.14	192.	0.067
26.76	0.133	204.	0.059
28.86	0.12	216.6	0.06
31.08	0.117	229.8	0.055
33.48	0.109	244.2	0.05
36.	0.103	259.2	0.048
38.64	0.097	274.8	0.049
41.46	0.09	291.6	0.041

SOLUTION

Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 2.962

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.008191	cm/sec
y0	1.709	ft

T = K*b = 1.408 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.008191	0.0004615	+/- 0.0009229	17.75	cm/sec
y0	1.709	0.0534	+/- 0.1068	32.01	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 1.408 cm²/sec

Parameter Correlations

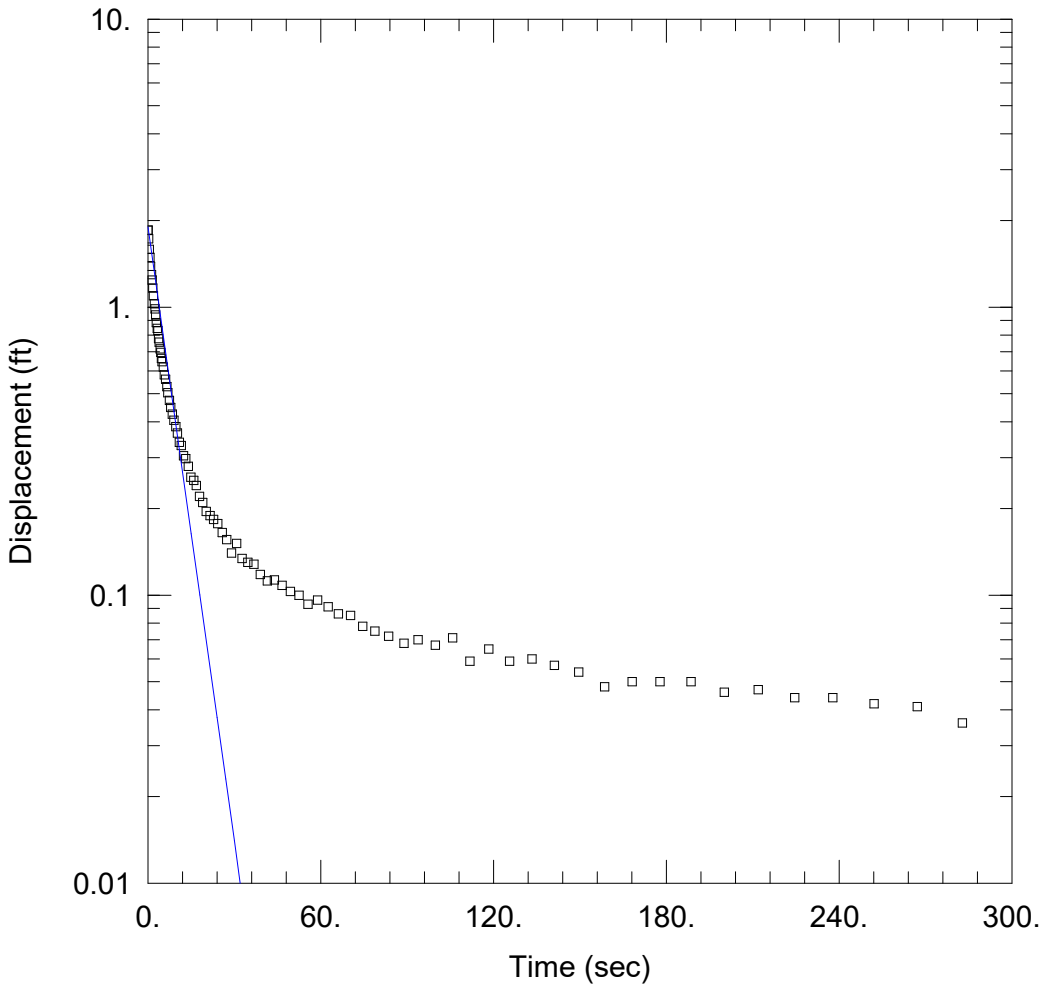
	K	y0
K	1.00	0.65

y0 0.65 1.00

Residual Statistics

for weighted residuals

Sum of Squares... 0.4385 ft^2
Variance ..... 0.007309 ft^2
Std. Deviation..... 0.08549 ft
Mean..... 0.05952 ft
No. of Residuals .. 62
No. of Estimates .. 2



P03S RECOVERY

Data Set: J:\...\P03S Recovery.aqt
Date: 09/02/25 Time: 10:08:57

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: P03S
Test Date: 8-15-25

AQUIFER DATA

Saturated Thickness: 6.91 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (P03S)

Initial Displacement: 1.849 ft
Total Well Penetration Depth: 6.47 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 6.91 ft
Screen Length: 4.67 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.006843 cm/sec y0 = 1.896 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\P03S\P03S Recovery.a
Title: P03S Recovery
Date: 09/02/25
Time: 10:09:04

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-15-25
Test Well: P03S

AQUIFER DATA

Saturated Thickness: 6.91 ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: P03S

X Location: 1130755.048 ft
Y Location: 2457062.359 ft

Initial Displacement: 1.849 ft
Static Water Column Height: 6.91 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.67 ft
Total Well Penetration Depth: 6.47 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.06471 ft
Gravel Pack Porosity: 0.

No. of Observations: 88

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.849	22.88	0.183
0.247	1.726	24.32	0.177
0.497	1.588	25.82	0.165
0.747	1.489	27.38	0.156
0.997	1.386	29.06	0.14
1.247	1.296	30.86	0.151
1.497	1.24	32.72	0.134
1.747	1.165	34.76	0.13
1.997	1.095	36.86	0.128
2.247	1.028	39.08	0.118
2.497	0.987	41.48	0.112
2.747	0.94	44.	0.113
2.997	0.884	46.64	0.108
3.247	0.843	49.46	0.103

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3.497	0.829	52.46	0.1
3.747	0.778	55.64	0.093
3.997	0.755	59.	0.096
4.247	0.717	62.6	0.091
4.497	0.697	66.2	0.086
4.747	0.664	70.4	0.085
4.997	0.646	74.6	0.078
5.357	0.619	78.8	0.075
5.717	0.582	83.6	0.072
6.137	0.561	89.	0.068
6.557	0.529	93.8	0.07
6.977	0.505	99.8	0.067
7.457	0.474	105.8	0.071
7.997	0.448	111.8	0.059
8.477	0.425	118.4	0.065
9.077	0.405	125.6	0.059
9.677	0.385	133.4	0.06
10.28	0.365	141.2	0.057
10.94	0.339	149.6	0.054
11.66	0.331	158.6	0.048
12.44	0.305	168.2	0.05
13.22	0.298	177.8	0.05
14.06	0.28	188.6	0.05
14.96	0.257	200.1	0.046
15.92	0.25	212.	0.047
16.88	0.24	224.6	0.044
17.96	0.22	237.8	0.044
19.1	0.21	252.2	0.042
20.3	0.195	267.2	0.041
21.56	0.189	282.8	0.036

SOLUTION

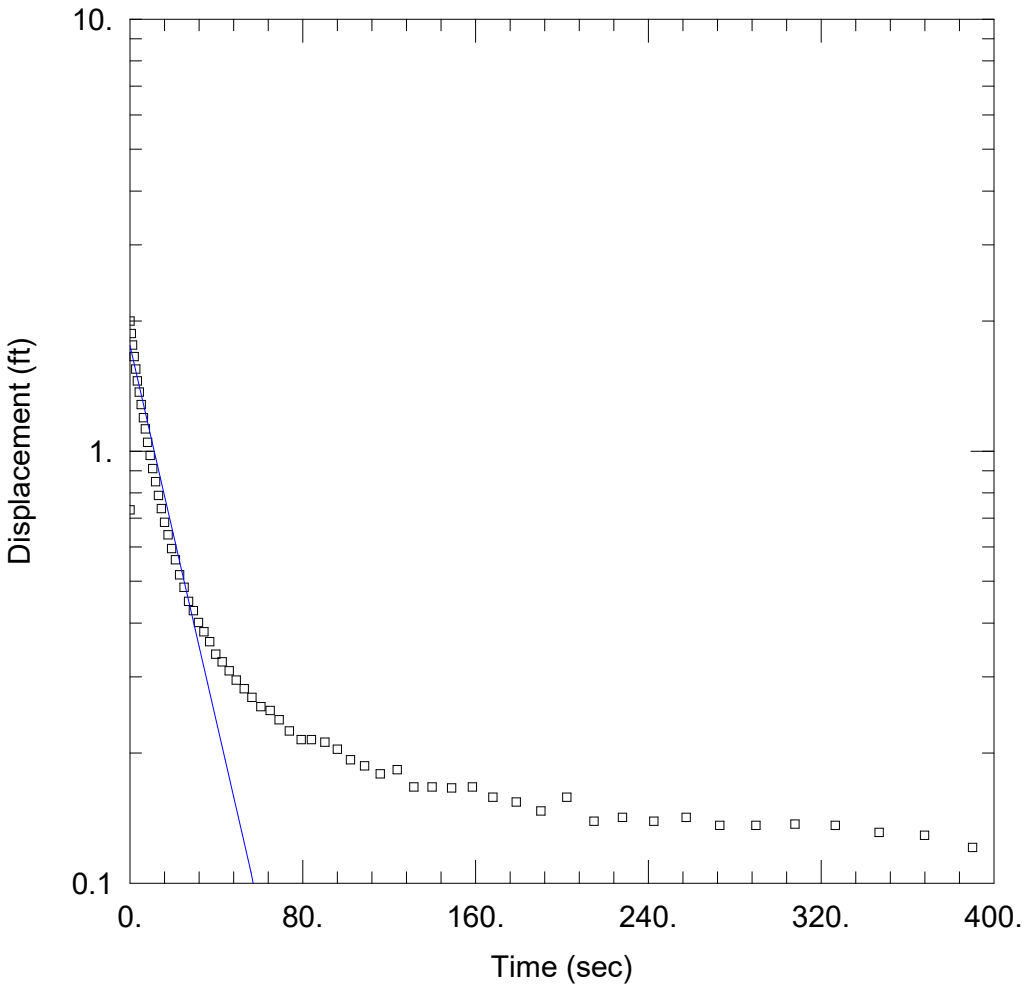
Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.064

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.006843	cm/sec
y0	1.896	ft

$T = K*b = 1.441$ cm²/sec



P03D DRAWDOWN

Data Set: J:\...\P03D Drawdown.aqt
Date: 09/02/25 Time: 10:06:41

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: P03D
Test Date: 8-20-25

AQUIFER DATA

Saturated Thickness: 5. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (P03D)

Initial Displacement: 0.731 ft
Total Well Penetration Depth: 29.02 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 23.25 ft
Screen Length: 4.7 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
K = 0.00405 cm/sec
y0 = 1.754 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\P03D\P03D Drawdown.
Title: P03D Drawdown
Date: 09/02/25
Time: 10:06:51

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-20-25
Test Well: P03D

AQUIFER DATA

Saturated Thickness: 5. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: P03D

X Location: 1130755.616 ft
Y Location: 2457066.455 ft

Initial Displacement: 0.731 ft
Static Water Column Height: 23.25 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.7 ft
Total Well Penetration Depth: 29.02 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.07715 ft
Gravel Pack Porosity: 0.

No. of Observations: 64

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.001	56.52	0.269
0.6	1.873	60.72	0.256
1.26	1.76	64.92	0.251
1.98	1.656	69.12	0.239
2.76	1.548	73.92	0.225
3.54	1.455	79.32	0.215
4.38	1.369	84.12	0.215
5.28	1.281	90.24	0.212
6.24	1.196	96.12	0.204
7.2	1.126	102.1	0.193
8.28	1.048	108.7	0.187
9.42	0.978	115.9	0.179
10.62	0.911	123.7	0.183
11.88	0.85	131.5	0.167

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
13.2	0.789	139.9	0.167
14.64	0.736	148.9	0.166
16.14	0.684	158.5	0.167
17.7	0.64	168.1	0.158
19.38	0.595	178.9	0.154
21.18	0.56	190.3	0.147
23.04	0.517	202.3	0.158
25.08	0.484	214.9	0.139
27.18	0.449	228.1	0.142
29.4	0.427	242.5	0.139
31.8	0.401	257.5	0.142
34.32	0.382	273.1	0.136
36.96	0.362	289.9	0.136
39.78	0.339	307.9	0.137
42.78	0.325	326.5	0.136
45.96	0.31	346.9	0.131
49.32	0.295	367.9	0.129
52.92	0.282	390.1	0.121

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 4.189

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.00405	cm/sec
y0	1.754	ft

T = K*b = 0.6172 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.00405	0.0002678	+/- 0.0005353	15.12	cm/sec
y0	1.754	0.05678	+/- 0.1135	30.89	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 0.6172 cm²/sec

Parameter Correlations

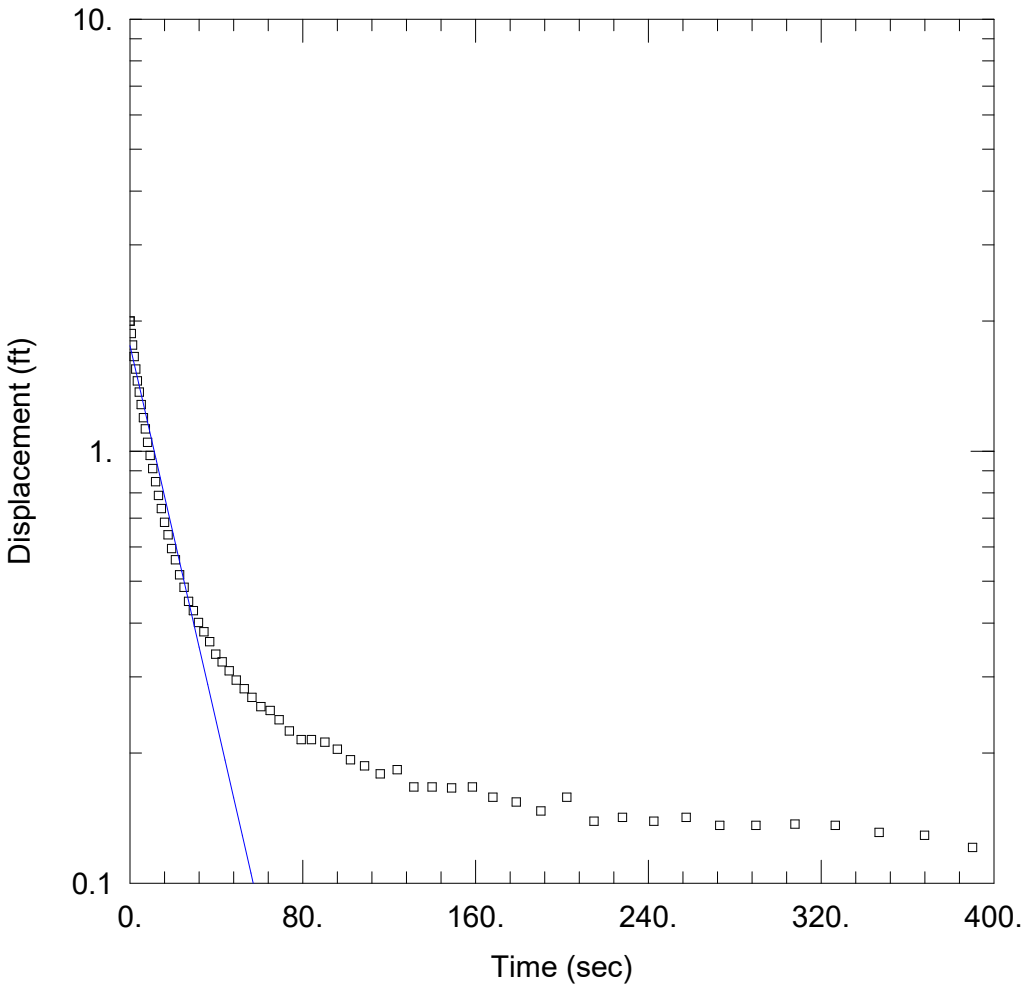
	K	y0

K	1.00	0.66
y0	0.66	1.00

Residual Statistics

for weighted residuals

Sum of Squares. . . 1.172 ft^2
Variance . . . . . 0.0189 ft^2
Std. Deviation . . . . . 0.1375 ft
Mean . . . . . 0.08258 ft
No. of Residuals . . 64
No. of Estimates . . 2



P03D RECOVERY

Data Set: J:\...\P03D Recovery.aqt
Date: 09/02/25 Time: 10:06:23

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: P03D
Test Date: 8-15-25

AQUIFER DATA

Saturated Thickness: 5. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (P03D)

Initial Displacement: 2.001 ft
Total Well Penetration Depth: 29.02 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 23.25 ft
Screen Length: 4.7 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice

K = 0.004059 cm/sec y0 = 1.755 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\P03D\P03D Recovery.a
Title: P03D Recovery
Date: 09/02/25
Time: 10:06:33

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-15-25
Test Well: P03D

AQUIFER DATA

Saturated Thickness: 5. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: P03D

X Location: 1130755.347 ft
Y Location: 2457066.36 ft

Initial Displacement: 2.001 ft
Static Water Column Height: 23.25 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.7 ft
Total Well Penetration Depth: 29.02 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.07715 ft
Gravel Pack Porosity: 0.

No. of Observations: 64

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.001	56.52	0.269
0.6	1.873	60.72	0.256
1.26	1.76	64.92	0.251
1.98	1.656	69.12	0.239
2.76	1.548	73.92	0.225
3.54	1.455	79.32	0.215
4.38	1.369	84.12	0.215
5.28	1.281	90.24	0.212
6.24	1.196	96.12	0.204
7.2	1.126	102.1	0.193
8.28	1.048	108.7	0.187
9.42	0.978	115.9	0.179
10.62	0.911	123.7	0.183
11.88	0.85	131.5	0.167

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
13.2	0.789	139.9	0.167
14.64	0.736	148.9	0.166
16.14	0.684	158.5	0.167
17.7	0.64	168.1	0.158
19.38	0.595	178.9	0.154
21.18	0.56	190.3	0.147
23.04	0.517	202.3	0.158
25.08	0.484	214.9	0.139
27.18	0.449	228.1	0.142
29.4	0.427	242.5	0.139
31.8	0.401	257.5	0.142
34.32	0.382	273.1	0.136
36.96	0.362	289.9	0.136
39.78	0.339	307.9	0.137
42.78	0.325	326.5	0.136
45.96	0.31	346.9	0.131
49.32	0.295	367.9	0.129
52.92	0.282	390.1	0.121

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 4.189

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.004059	cm/sec
y0	1.755	ft

T = K*b = 0.6186 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.004059	0.0002683	+/- 0.0005364	15.13	cm/sec
y0	1.755	0.05682	+/- 0.1136	30.89	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 0.6186 cm²/sec

Parameter Correlations

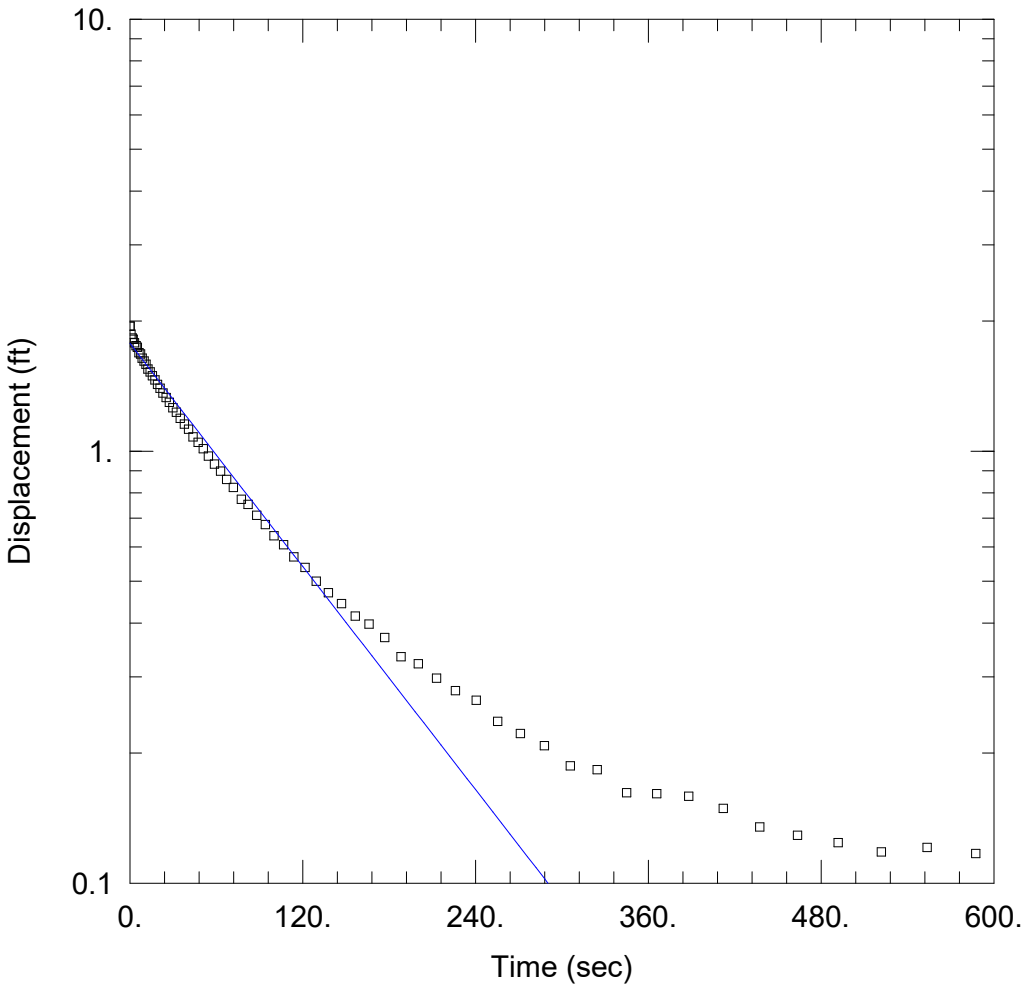
	K	y0

K	1.00	0.66
y0	0.66	1.00

Residual Statistics

for weighted residuals

Sum of Squares. . . 1.172 ft^2
Variance . . . . . 0.0189 ft^2
Std. Deviation . . . . . 0.1375 ft
Mean . . . . . 0.08283 ft
No. of Residuals . . 64
No. of Estimates . . 2



R103S DRAWDOWN

Data Set: J:\...\R103S Drawdown.aqt
Date: 09/02/25 Time: 10:09:55

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: R103S
Test Date: 8-20-25

AQUIFER DATA

Saturated Thickness: 5. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (R103S)

Initial Displacement: 1.946 ft
Total Well Penetration Depth: 14.88 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 9.81 ft
Screen Length: 4.67 ft
Well Radius: 0.08333 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0005147 cm/sec
y0 = 1.774 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\R103S\R103S Drawdow
Title: R103S Drawdown
Date: 09/02/25
Time: 10:10:04

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-20-25
Test Well: R103S

AQUIFER DATA

Saturated Thickness: 5. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: R103S

X Location: 1130717.534 ft
Y Location: 2457299.138 ft

Initial Displacement: 1.946 ft
Static Water Column Height: 9.81 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.67 ft
Total Well Penetration Depth: 14.88 ft

No. of Observations: 68

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.946	77.34	0.773
0.78	1.866	82.14	0.753
1.56	1.827	88.14	0.71
2.4	1.816	94.14	0.676
3.3	1.782	100.1	0.637
4.26	1.755	106.7	0.607
5.22	1.738	113.9	0.569
6.3	1.691	121.7	0.538
7.44	1.677	129.5	0.5
8.64	1.64	137.9	0.47
9.9	1.615	146.9	0.444
11.22	1.588	156.5	0.415
12.66	1.55	166.1	0.398
14.16	1.524	176.9	0.37
15.72	1.494	188.3	0.334
17.4	1.462	200.3	0.322

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
19.2	1.426	212.9	0.298
21.06	1.398	226.1	0.279
23.1	1.363	240.5	0.265
25.2	1.33	255.5	0.237
27.42	1.296	271.1	0.222
29.82	1.259	287.9	0.208
32.34	1.23	305.9	0.187
34.98	1.192	324.5	0.183
37.8	1.156	344.9	0.162
40.8	1.123	365.9	0.161
43.98	1.079	388.1	0.159
47.34	1.048	412.1	0.149
50.94	1.013	437.3	0.135
54.54	0.974	463.7	0.129
58.74	0.933	491.9	0.124
62.94	0.899	521.9	0.118
67.14	0.86	553.7	0.121
71.94	0.824	587.3	0.117

SOLUTION

Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.802

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0005147	cm/sec
y0	1.774	ft

T = K*b = 0.07844 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.0005147	1.44E-5	+/- 2.875E-5	35.75	cm/sec
y0	1.774	0.01927	+/- 0.03848	92.05	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 0.07844 cm²/sec

Parameter Correlations

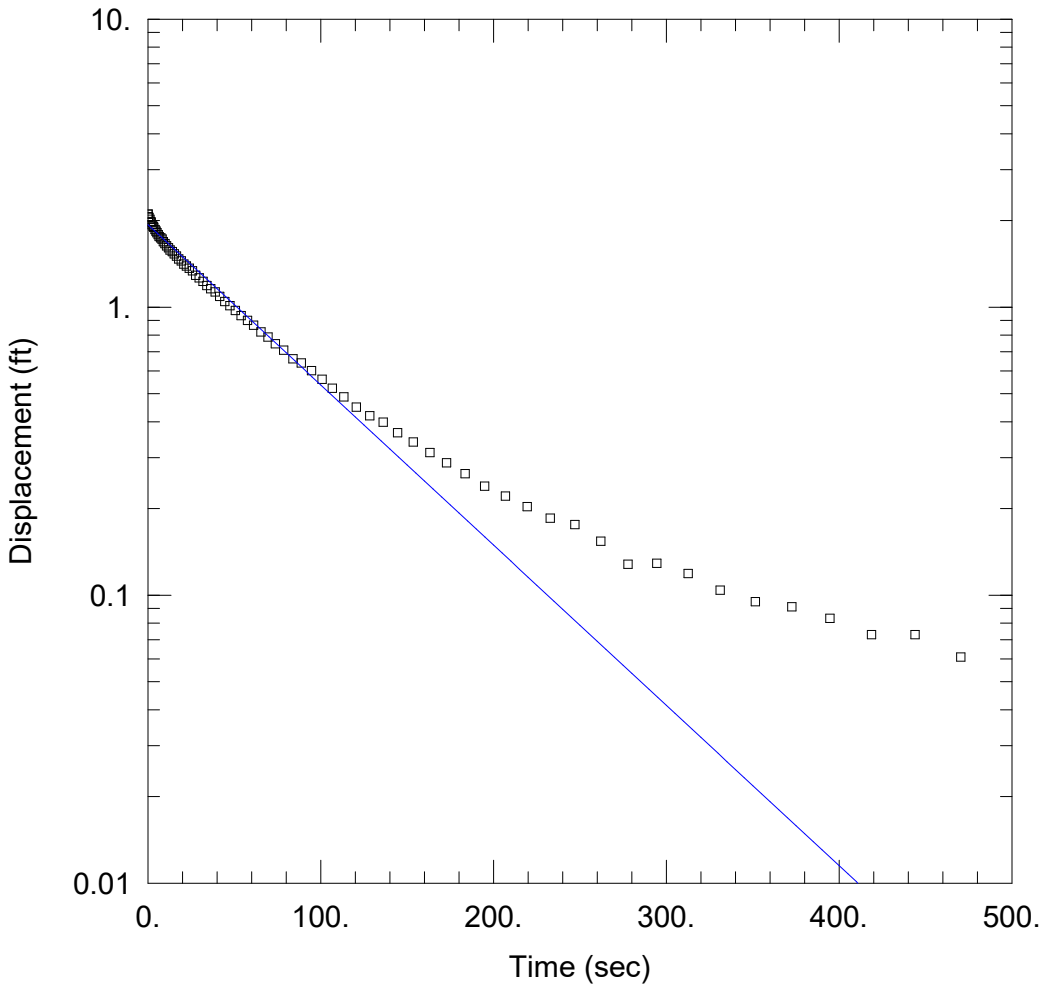
	K	y0

K	1.00	0.62
y0	0.62	1.00

Residual Statistics

for weighted residuals

Sum of Squares. . . 0.3552 ft^2
Variance . . . . . 0.005381 ft^2
Std. Deviation . . . . . 0.07336 ft
Mean . . . . . 0.02506 ft
No. of Residuals . . 68
No. of Estimates . . 2



R103S RECOVERY

Data Set: J:\...\R103S Recovery.aqt
Date: 09/02/25 Time: 10:10:17

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: R103S
Test Date: 8-20-25

AQUIFER DATA

Saturated Thickness: 5. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (R103S)

Initial Displacement: 2.101 ft
Total Well Penetration Depth: 14.88 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 9.81 ft
Screen Length: 4.67 ft
Well Radius: 0.08333 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0006657 cm/sec y0 = 1.934 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\R103S\R103S Recover
Title: R103S Recovery
Date: 09/02/25
Time: 10:10:28

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-20-25
Test Well: R103S

AQUIFER DATA

Saturated Thickness: 5. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: R103S

X Location: 1130717.534 ft
Y Location: 2457299.138 ft

Initial Displacement: 2.101 ft
Static Water Column Height: 9.81 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.67 ft
Total Well Penetration Depth: 14.88 ft

No. of Observations: 77

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.101	50.64	0.974
0.359	2.061	54.	0.934
0.72	2.049	57.6	0.899
1.14	2.016	61.2	0.865
1.559	1.985	65.4	0.821
1.979	1.971	69.6	0.787
2.46	1.934	73.8	0.746
2.999	1.908	78.6	0.708
3.479	1.892	84.	0.662
4.079	1.861	88.8	0.64
4.68	1.835	94.8	0.602
5.279	1.815	100.8	0.561
5.94	1.784	106.8	0.523
6.66	1.76	113.4	0.488
7.44	1.739	120.6	0.45
8.22	1.721	128.4	0.42

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
9.06	1.687	136.2	0.399
9.96	1.66	144.6	0.366
10.92	1.633	153.6	0.34
11.88	1.607	163.2	0.313
12.96	1.579	172.8	0.288
14.1	1.559	183.6	0.264
15.3	1.531	195.	0.239
16.56	1.503	207.	0.221
17.88	1.471	219.6	0.203
19.32	1.447	232.8	0.185
20.82	1.409	247.2	0.176
22.38	1.388	262.2	0.154
24.06	1.363	277.8	0.128
25.86	1.336	294.6	0.129
27.72	1.289	312.6	0.119
29.76	1.263	331.2	0.104
31.86	1.23	351.6	0.095
34.08	1.19	372.6	0.091
36.48	1.158	394.8	0.083
39.	1.129	418.8	0.073
41.64	1.089	444.	0.073
44.46	1.046	470.4	0.061
47.46	1.012		

SOLUTION

Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.802

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0006657	cm/sec
y0	1.934	ft

T = K*b = 0.1015 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.0006657	1.427E-5	+/- 2.843E-5	46.64	cm/sec
y0	1.934	0.01484	+/- 0.02955	130.3	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 0.1015 cm²/sec

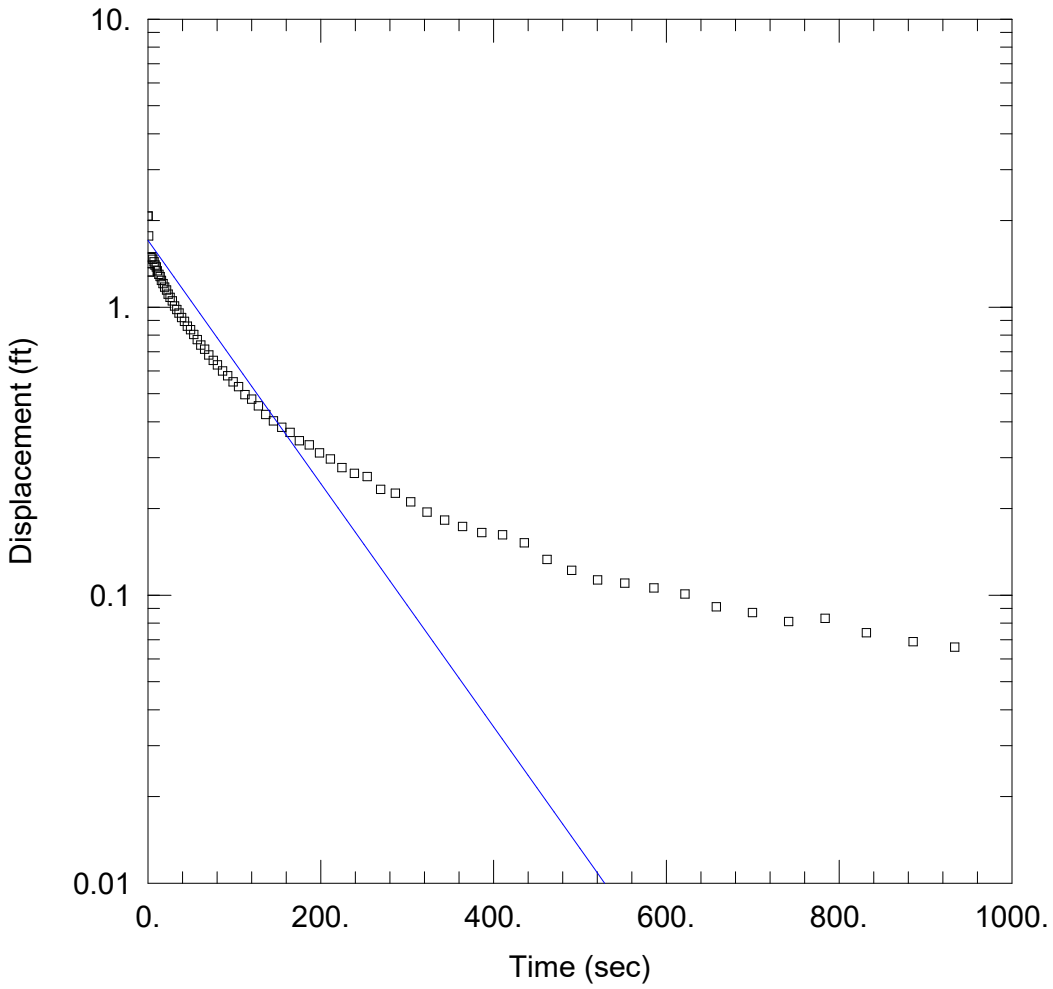
Parameter Correlations

	K	y0
K	1.00	0.60
y0	0.60	1.00

Residual Statistics

for weighted residuals

Sum of Squares. . . 0.3124 ft^2
Variance . . . . . 0.004165 ft^2
Std. Deviation . . . . . 0.06454 ft
Mean . . . . . 0.01767 ft
No. of Residuals . . 77
No. of Estimates . . 2



G104S

Data Set: J:\...\G104S Drawdown.aqt
Date: 09/02/25 Time: 10:05:35

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: G104S
Test Date: 8-20-25

AQUIFER DATA

Saturated Thickness: 10.7 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (G104S)

Initial Displacement: 2.072 ft
Total Well Penetration Depth: 16.27 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 10.7 ft
Screen Length: 4.7 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice

K = 0.0005092 cm/sec y0 = 1.707 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\G104S\G104S Drawdo
Title: G104S
Date: 09/02/25
Time: 10:05:43

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-20-25
Test Well: G104S

AQUIFER DATA

Saturated Thickness: 10.7 ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: G104S

X Location: 1130745.859 ft
Y Location: 2456717.96 ft

Initial Displacement: 2.072 ft
Static Water Column Height: 10.7 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.7 ft
Total Well Penetration Depth: 16.27 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.06471 ft
Gravel Pack Porosity: 0.

No. of Observations: 74

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.072	105.2	0.53
0.84	1.768	112.4	0.497
1.74	1.325	120.2	0.479
2.7	1.326	128.	0.454
3.66	1.486	136.4	0.424
4.74	1.498	145.4	0.403
5.88	1.465	155.	0.383
7.08	1.435	164.6	0.367
8.34	1.401	175.4	0.344
9.676	1.378	186.8	0.332
11.1	1.338	198.8	0.312
12.6	1.3	211.4	0.297
14.16	1.276	224.6	0.277
15.84	1.237	239.	0.265

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
17.64	1.207	254.	0.258
19.5	1.173	269.6	0.233
21.54	1.146	286.4	0.226
23.64	1.109	304.4	0.211
25.86	1.08	323.	0.194
28.26	1.05	343.4	0.182
30.78	1.01	364.4	0.173
33.42	0.982	386.6	0.165
36.24	0.954	410.6	0.162
39.24	0.921	435.8	0.152
42.42	0.892	462.2	0.133
45.78	0.859	490.4	0.122
49.38	0.834	520.4	0.113
52.98	0.803	552.2	0.11
57.18	0.772	585.8	0.106
61.38	0.739	621.8	0.101
65.58	0.714	657.8	0.091
70.38	0.683	699.8	0.087
75.78	0.653	741.8	0.081
80.58	0.63	783.8	0.083
86.58	0.601	831.8	0.074
92.58	0.577	885.8	0.069
98.58	0.55	933.8	0.066

SOLUTION

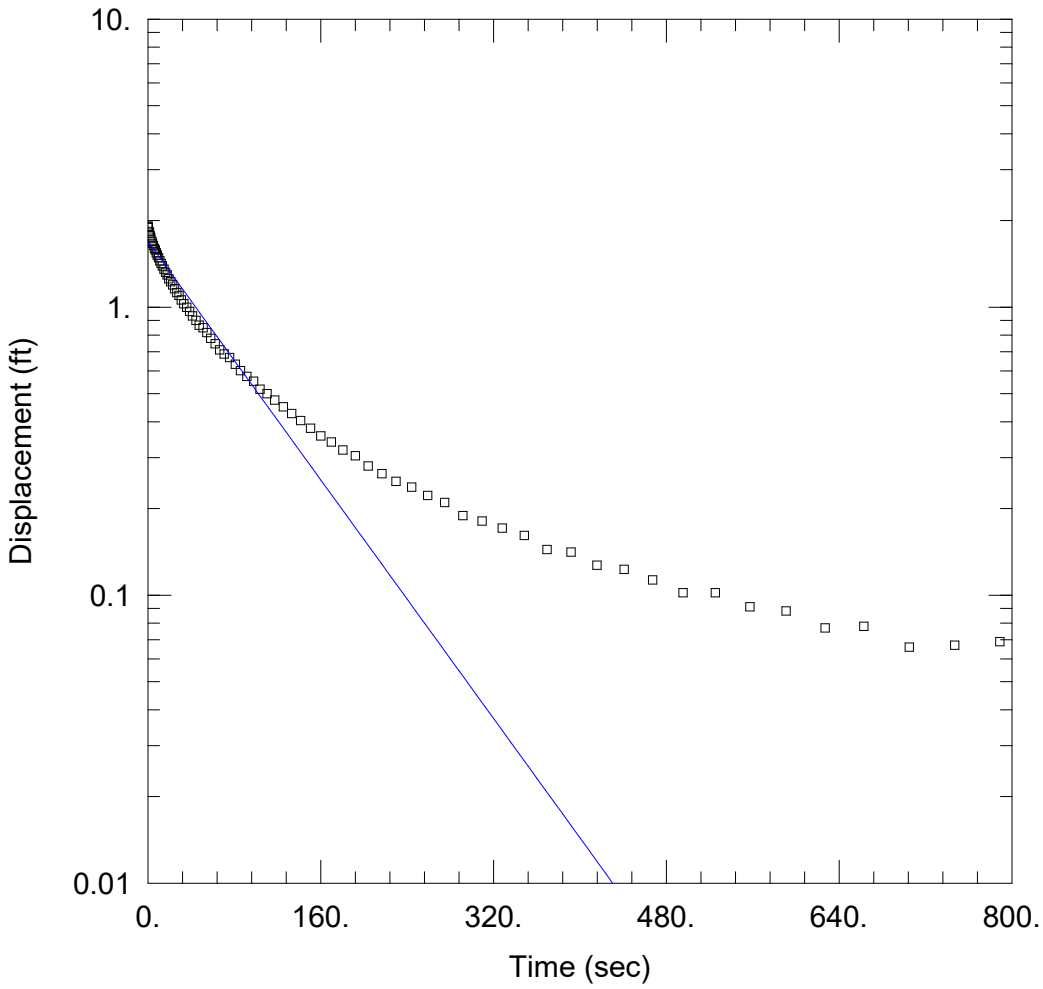
Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.856

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0005092	cm/sec
y0	1.707	ft

T = K*b = 0.1661 cm²/sec



G104S RECOVERY

Data Set: J:\...\G104S Recovery.aqt
Date: 09/02/25 Time: 10:05:51

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: G104S
Test Date: 8-20-25

AQUIFER DATA

Saturated Thickness: 5. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (G104S)

Initial Displacement: 1.906 ft
Total Well Penetration Depth: 16.27 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 10.7 ft
Screen Length: 4.7 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice

K = 0.0006243 cm/sec y0 = 1.692 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\G104S\G104S Recover
Title: G104S Recovery
Date: 09/02/25
Time: 10:05:59

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-20-25
Test Well: G104S

AQUIFER DATA

Saturated Thickness: 5. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: G104S

X Location: 1130745.859 ft
Y Location: 2456717.96 ft

Initial Displacement: 1.906 ft
Static Water Column Height: 10.7 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.7 ft
Total Well Penetration Depth: 16.27 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.06471 ft
Gravel Pack Porosity: 0.

No. of Observations: 79

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.906	81.	0.634
0.48	1.89	85.8	0.602
1.08	1.833	91.8	0.574
1.68	1.81	97.8	0.553
2.28	1.766	103.8	0.519
2.94	1.734	110.4	0.5
3.66	1.693	117.6	0.475
4.44	1.667	125.4	0.451
5.22	1.635	133.2	0.427
6.06	1.6	141.6	0.404
6.96	1.578	150.6	0.38
7.92	1.542	160.2	0.357
8.88	1.516	169.8	0.34
9.96	1.484	180.6	0.319

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
11.1	1.448	192.	0.305
12.3	1.417	204.	0.281
13.56	1.388	216.6	0.264
14.88	1.354	229.8	0.248
16.32	1.319	244.2	0.237
17.82	1.292	259.2	0.222
19.38	1.253	274.8	0.21
21.06	1.225	291.6	0.189
22.86	1.196	309.6	0.181
24.72	1.158	328.2	0.171
26.76	1.123	348.6	0.161
28.86	1.098	369.6	0.144
31.08	1.058	391.8	0.141
33.48	1.028	415.8	0.127
36.	0.998	441.	0.123
38.64	0.967	467.4	0.113
41.46	0.932	495.6	0.102
44.46	0.899	525.6	0.102
47.64	0.865	557.4	0.091
51.	0.847	591.	0.088
54.6	0.815	627.	0.077
58.2	0.779	663.	0.078
62.4	0.747	705.	0.066
66.6	0.71	747.	0.067
70.8	0.687	789.	0.069
75.6	0.668		

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.856

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0006243	cm/sec
y0	1.692	ft

T = K*b = 0.09514 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.0006243	2.442E-5	+/- 4.862E-5	25.56	cm/sec
y0	1.692	0.02502	+/- 0.04981	67.65	ft

C.I. is approximate 95% confidence interval for parameter

t-ratio = estimate/std. error
No estimation window

T = K*b = 0.09514 cm²/sec

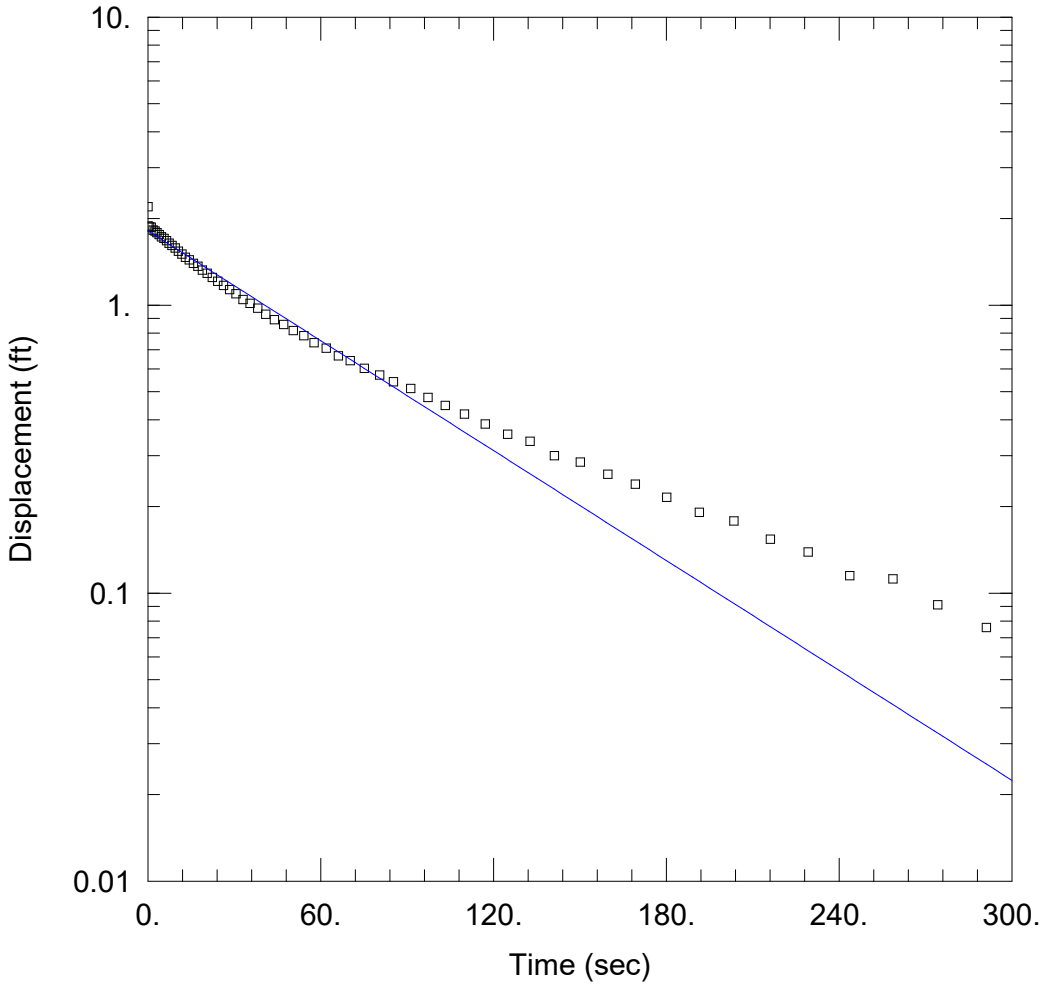
Parameter Correlations

	K	y0
K	1.00	0.62
y0	0.62	1.00

Residual Statistics

for weighted residuals

Sum of Squares. . . 0.7656 ft^2
Variance . . . . . 0.009943 ft^2
Std. Deviation . . . . . 0.09971 ft
Mean . . . . . 0.03548 ft
No. of Residuals . . 79
No. of Estimates . . 2



RW3S DRAWDOWN

Data Set: J:\...\RW3S Drawdown.aqt
Date: 09/02/25 Time: 10:11:43

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: RW3S
Test Date: 8-19-25

AQUIFER DATA

Saturated Thickness: 5. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (RW3S)

Initial Displacement: 2.197 ft
Total Well Penetration Depth: 6.29 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 6.65 ft
Screen Length: 4.7 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0006517 cm/sec y0 = 1.811 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\RW3S\RW3S Drawdow
Title: RW3S Drawdown
Date: 09/02/25
Time: 10:11:57

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-19-25
Test Well: RW3S

AQUIFER DATA

Saturated Thickness: 5. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: RW3S

X Location: 1130653.064 ft
Y Location: 2456148.635 ft

Initial Displacement: 2.197 ft
Static Water Column Height: 6.65 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.7 ft
Total Well Penetration Depth: 6.29 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.06471 ft
Gravel Pack Porosity: 0.

No. of Observations: 61

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.884	47.16	0.856
0.6	1.87	50.52	0.817
1.2	1.865	54.12	0.784
1.8	1.823	57.72	0.74
2.46	1.809	61.92	0.709
3.18	1.784	66.12	0.666
3.96	1.756	70.32	0.641
4.74	1.728	75.12	0.604
5.58	1.706	80.52	0.572
6.48	1.673	85.32	0.542
7.44	1.64	91.32	0.514
8.4	1.611	97.32	0.478
9.48	1.577	103.3	0.448
10.62	1.537	109.9	0.419

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
11.82	1.503	117.1	0.387
13.1	1.467	124.9	0.356
14.4	1.437	132.7	0.337
15.84	1.396	141.1	0.3
17.34	1.364	150.1	0.285
18.9	1.324	159.7	0.259
20.58	1.289	169.3	0.239
22.38	1.247	180.1	0.215
24.24	1.21	191.5	0.191
26.28	1.17	203.5	0.178
28.38	1.131	216.1	0.154
30.6	1.095	229.3	0.139
33.	1.045	243.7	0.115
35.52	1.015	258.7	0.112
38.16	0.975	274.3	0.091
40.98	0.93	291.1	0.076
43.98	0.89		

SOLUTION

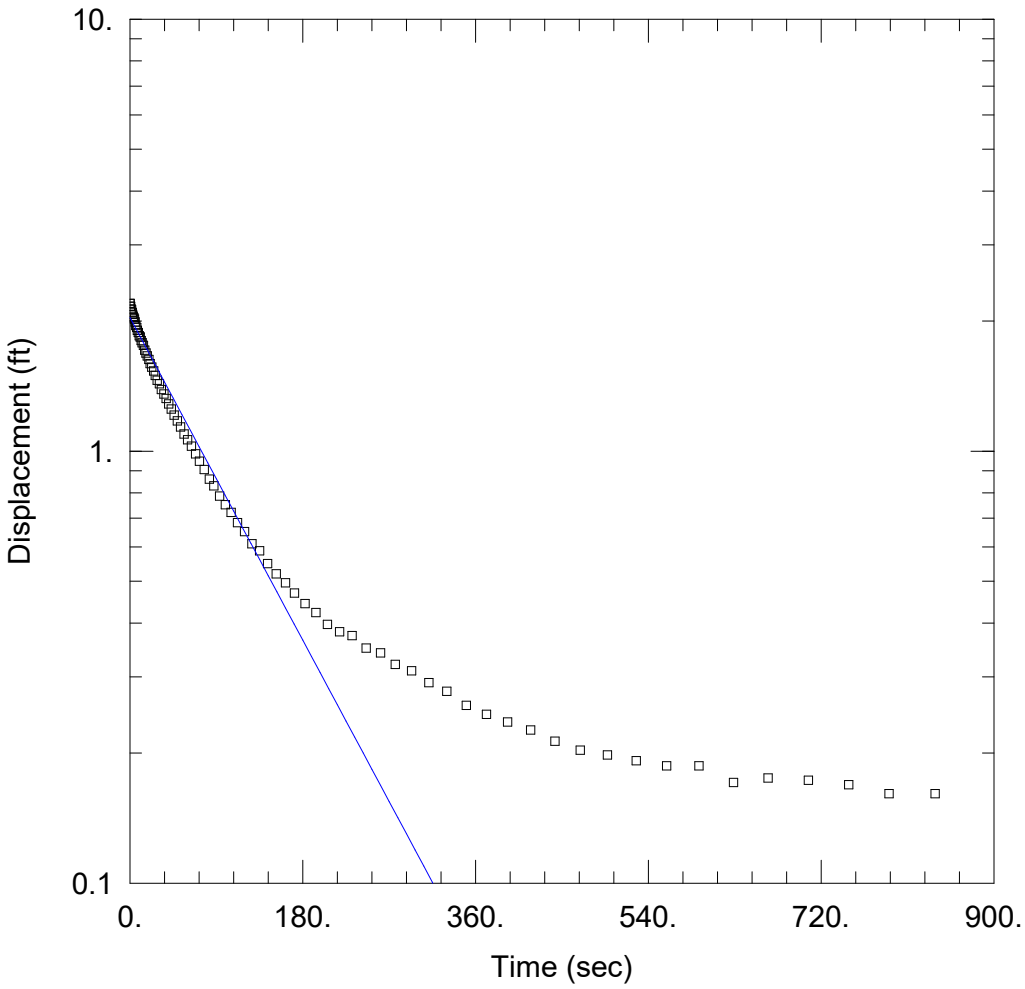
Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.277

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0006517	cm/sec
y0	1.811	ft

$T = K*b = 0.09932$ cm²/sec



RW3S RECOVERY

Data Set: J:\...\RW3S Recovery.aqt
Date: 09/02/25 Time: 10:12:10

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: RW3S
Test Date: 8-19-25

AQUIFER DATA

Saturated Thickness: 5. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (RW3S)

Initial Displacement: 2.197 ft
Total Well Penetration Depth: 6.66 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 6.65 ft
Screen Length: 4.7 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0004298 cm/sec y0 = 2.038 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\RW3S\RW3S Recovery
Title: RW3S Recovery
Date: 09/02/25
Time: 10:12:18

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-19-25
Test Well: RW3S

AQUIFER DATA

Saturated Thickness: 5. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: RW3S

X Location: 1130652.179 ft
Y Location: 2456148.818 ft

Initial Displacement: 2.197 ft
Static Water Column Height: 6.65 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.7 ft
Total Well Penetration Depth: 6.66 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.06471 ft
Gravel Pack Porosity: 0.

No. of Observations: 84

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.197	72.66	0.947
0.42	2.164	77.46	0.907
0.84	2.162	82.86	0.861
1.32	2.135	87.66	0.831
1.86	2.122	93.66	0.787
2.34	2.096	99.66	0.751
2.94	2.074	105.7	0.721
3.54	2.051	112.3	0.683
4.14	2.034	119.5	0.651
4.8	2.022	127.3	0.61
5.52	1.991	135.1	0.588
6.3	1.954	143.5	0.549
7.08	1.932	152.5	0.52
7.92	1.904	162.1	0.496

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
8.82	1.882	171.7	0.469
9.78	1.85	182.5	0.444
10.74	1.838	193.9	0.423
11.82	1.804	205.9	0.397
12.96	1.78	218.5	0.382
14.16	1.757	231.7	0.374
15.42	1.713	246.1	0.35
16.74	1.686	261.1	0.341
18.18	1.661	276.7	0.321
19.68	1.63	293.5	0.31
21.24	1.595	311.5	0.291
22.92	1.566	330.1	0.278
24.72	1.532	350.5	0.258
26.58	1.497	371.5	0.246
28.62	1.46	393.7	0.236
30.72	1.431	417.7	0.226
32.94	1.389	442.9	0.213
35.34	1.357	469.3	0.203
37.86	1.325	497.5	0.198
40.5	1.287	527.5	0.192
43.32	1.252	559.3	0.187
46.32	1.211	592.9	0.187
49.5	1.175	628.9	0.171
52.86	1.138	664.9	0.175
56.46	1.096	706.9	0.173
60.06	1.062	748.9	0.169
64.26	1.027	790.9	0.161
68.46	0.986	838.9	0.161

SOLUTION

Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.313

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0004298	cm/sec
y0	2.038	ft

T = K*b = 0.0655 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.0004298	1.54E-5	+/- 3.062E-5	27.92	cm/sec
y0	2.038	0.0256	+/- 0.05092	79.59	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 0.0655 cm²/sec

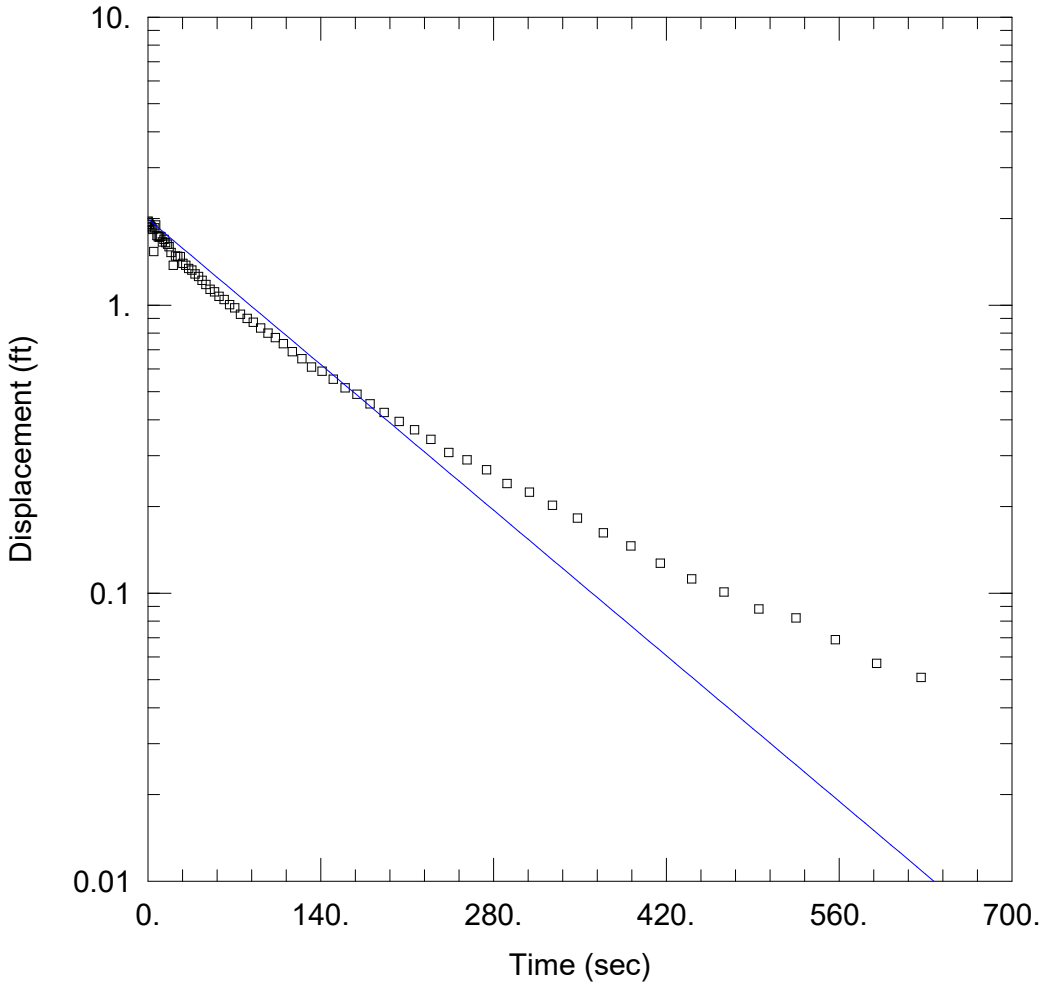
Parameter Correlations

	K	y0
K	1.00	0.60
y0	0.60	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 1.082 ft^2
Variance ..... 0.0132 ft^2
Std. Deviation..... 0.1149 ft
Mean..... 0.04488 ft
No. of Residuals .. 84
No. of Estimates .. 2



AP-6S DRAWDOWN

Data Set: J:\...\AP-6S Drawdown.aqt
Date: 09/02/25 Time: 09:54:02

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: AP-6S
Test Date: 8-19-25

AQUIFER DATA

Saturated Thickness: 6.36 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (AP-6S)

Initial Displacement: 1.94 ft
Total Well Penetration Depth: 5.96 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 5.933 ft
Screen Length: 4.7 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0004859 cm/sec y0 = 1.99 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\AP-6S\AP-6S Drawdow
Title: AP-6S Drawdown
Date: 09/02/25
Time: 09:54:11

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-19-25
Test Well: AP-6S

AQUIFER DATA

Saturated Thickness: 6.36 ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: AP-6S

X Location: 1130735.938 ft
Y Location: 2456104.086 ft

Initial Displacement: 1.94 ft
Static Water Column Height: 5.933 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.7 ft
Total Well Penetration Depth: 5.96 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.07715 ft
Gravel Pack Porosity: 0.

No. of Observations: 74

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.956	70.32	0.979
0.6	1.932	75.12	0.93
1.2	1.909	80.52	0.899
1.8	1.897	85.32	0.871
2.46	1.873	91.32	0.832
3.18	1.856	97.32	0.799
3.96	1.833	103.3	0.771
4.74	1.534	109.9	0.734
5.58	1.853	117.1	0.689
6.48	1.897	124.9	0.651
7.44	1.745	132.7	0.609
8.4	1.725	141.1	0.59
9.48	1.723	150.1	0.553
10.62	1.733	159.7	0.516

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
11.82	1.659	169.3	0.49
13.08	1.693	180.1	0.454
14.4	1.648	191.5	0.424
15.84	1.63	203.5	0.395
17.34	1.597	216.1	0.369
18.9	1.522	229.3	0.342
20.58	1.374	243.7	0.308
22.38	1.482	258.7	0.29
24.24	1.477	274.3	0.268
26.28	1.473	291.1	0.24
28.38	1.396	309.1	0.224
30.6	1.375	327.7	0.202
33.	1.341	348.1	0.182
35.52	1.322	369.1	0.162
38.16	1.283	391.3	0.146
40.98	1.257	415.3	0.127
43.98	1.218	440.5	0.112
47.16	1.178	466.9	0.101
50.52	1.136	495.1	0.088
54.12	1.112	525.1	0.082
57.72	1.072	556.9	0.069
61.92	1.047	590.5	0.057
66.12	1.004	626.5	0.051

SOLUTION

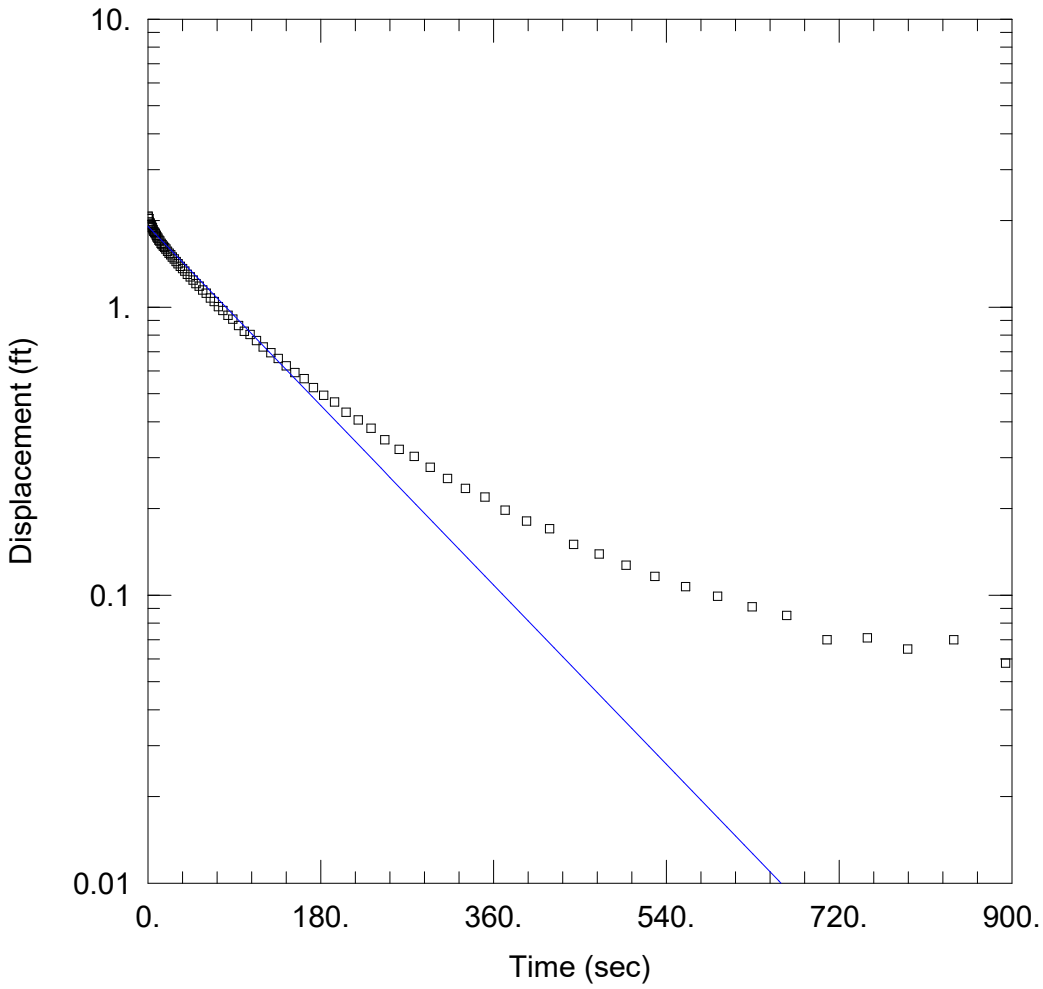
Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.029

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0004859	cm/sec
y0	1.99	ft

T = K*b = 0.0942 cm²/sec



AP-6S RECOVERY

Data Set: J:\...\AP-6S Recovery.aqt
Date: 09/02/25 Time: 09:54:19

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: AP-6S
Test Date: 8-19-25

AQUIFER DATA

Saturated Thickness: 6.36 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (AP-6S)

Initial Displacement: 1.94 ft
Total Well Penetration Depth: 6.66 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 5.93 ft
Screen Length: 4.7 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.000509 cm/sec y0 = 1.907 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\AP-6S\AP-6S Recovery
Title: AP-6S Recovery
Date: 09/02/25
Time: 09:54:40

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-19-25
Test Well: AP-6S

AQUIFER DATA

Saturated Thickness: 6.36 ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: AP-6S

X Location: 1130735.938 ft
Y Location: 2456104.086 ft

Initial Displacement: 1.94 ft
Static Water Column Height: 5.93 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.7 ft
Total Well Penetration Depth: 6.66 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.07715 ft
Gravel Pack Porosity: 0.

No. of Observations: 87

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.072	73.44	1.005
0.36	2.054	78.24	0.973
0.78	2.028	83.64	0.936
1.2	2.03	88.44	0.908
1.62	1.976	94.44	0.864
2.1	1.929	100.4	0.824
2.64	1.956	106.4	0.803
3.12	1.934	113.	0.766
3.72	1.912	120.2	0.728
4.32	1.895	128.	0.694
4.92	1.882	135.8	0.664
5.58	1.855	144.2	0.625
6.3	1.831	153.2	0.592
7.08	1.817	162.8	0.564

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
7.86	1.797	172.4	0.525
8.7	1.778	183.2	0.494
9.6	1.754	194.6	0.468
10.56	1.735	206.6	0.431
11.52	1.711	219.2	0.406
12.6	1.697	232.4	0.38
13.74	1.668	246.8	0.346
14.94	1.651	261.8	0.321
16.2	1.63	277.4	0.303
17.52	1.61	294.2	0.278
18.96	1.59	312.2	0.254
20.46	1.564	330.8	0.235
22.02	1.537	351.2	0.219
23.7	1.52	372.2	0.197
25.5	1.494	394.4	0.181
27.36	1.469	418.4	0.17
29.41	1.441	443.6	0.15
31.5	1.416	470.	0.139
33.72	1.386	498.2	0.127
36.12	1.361	528.2	0.116
38.64	1.332	560.	0.107
41.28	1.3	593.6	0.099
44.1	1.274	629.6	0.091
47.1	1.241	665.6	0.085
50.28	1.206	707.6	0.07
53.64	1.181	749.6	0.071
57.24	1.146	791.6	0.065
60.84	1.118	839.6	0.07
65.04	1.076	893.6	0.058
69.24	1.046		

SOLUTION

Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.313

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.000509	cm/sec
y0	1.907	ft

T = K*b = 0.09868 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio

K	0.000509	1.17E-5	+/- 2.325E-5	43.52	cm/sec
y0	1.907	0.01465	+/- 0.02912	130.2	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 0.09868 cm²/sec

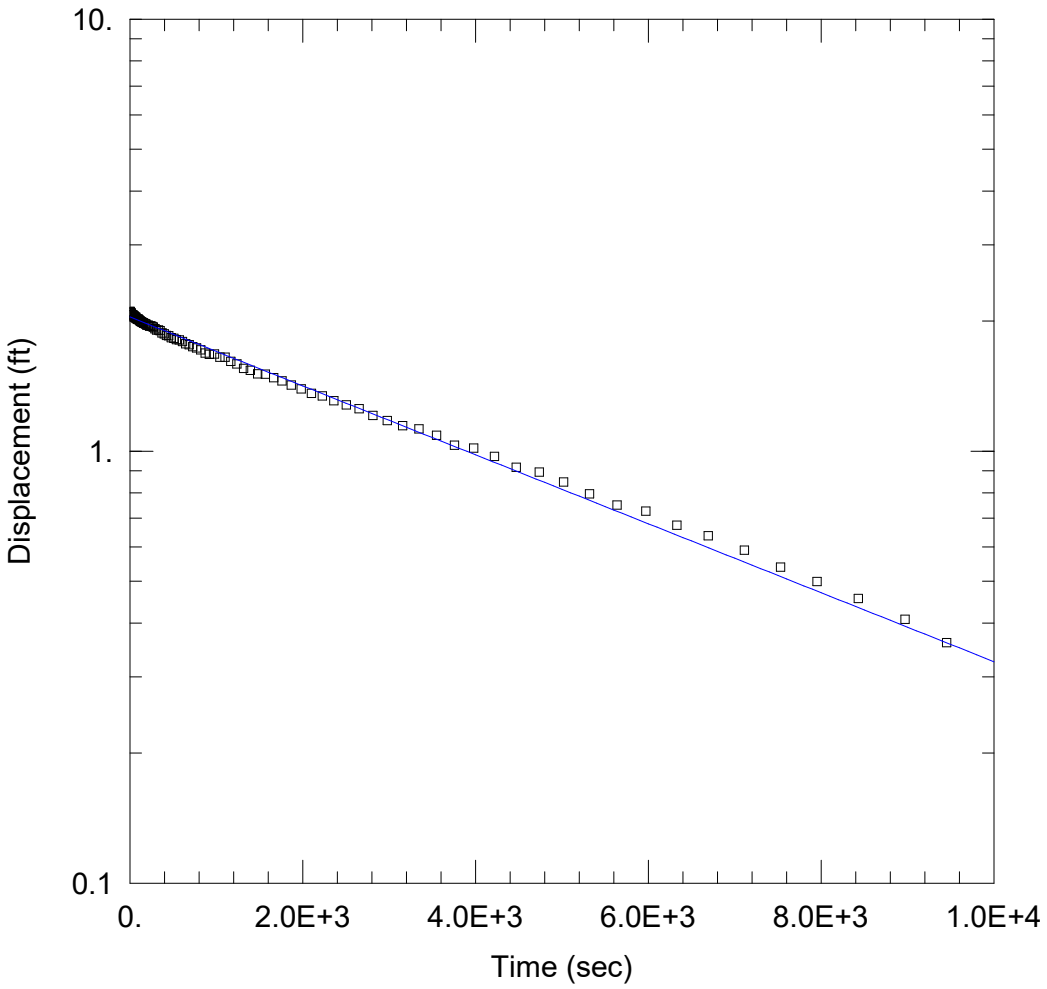
Parameter Correlations

	K	y0
K	1.00	0.58
y0	0.58	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 0.4247 ft^2
Variance ..... 0.004996 ft^2
Std. Deviation..... 0.07068 ft
Mean..... 0.02013 ft
No. of Residuals .. 87
No. of Estimates .. 2



AP-15D DRAWDOWN

Data Set: J:\...\AP-15D Drawdown.aqt
Date: 09/02/25 Time: 10:03:03

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: AP-15D
Test Date: 8-19-25

AQUIFER DATA

Saturated Thickness: 2. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (AP-15D)

Initial Displacement: 2.107 ft
Total Well Penetration Depth: 29.85 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 23.3 ft
Screen Length: 2.4 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
K = 3.189E-5 cm/sec
y0 = 2.044 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\AP-15D\AP-15D Drawd
Title: AP-15D Drawdown
Date: 09/02/25
Time: 10:02:54

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-19-25
Test Well: AP-15D

AQUIFER DATA

Saturated Thickness: 2. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: AP-15D

X Location: 1127956.648 ft
Y Location: 2455904.286 ft

Initial Displacement: 2.107 ft
Static Water Column Height: 23.3 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 2.4 ft
Total Well Penetration Depth: 29.85 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.07715 ft
Gravel Pack Porosity: 0.

No. of Observations: 103

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.107	507.8	1.825
1.559	2.096	539.6	1.813
3.24	2.099	573.2	1.809
5.039	2.098	609.2	1.794
6.899	2.093	645.2	1.771
8.939	2.093	687.2	1.762
11.04	2.083	729.2	1.745
13.26	2.088	771.2	1.733
15.66	2.083	819.2	1.717
18.18	2.074	873.2	1.687
20.82	2.072	921.2	1.675
23.64	2.068	981.2	1.678
26.64	2.069	1041.2	1.651
29.82	2.07	1101.2	1.649

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
33.18	2.065	1167.2	1.614
36.78	2.059	1239.2	1.592
40.38	2.061	1317.2	1.553
44.58	2.057	1395.2	1.539
48.78	2.046	1479.2	1.509
52.98	2.052	1569.2	1.508
57.78	2.044	1665.2	1.479
63.18	2.039	1761.2	1.453
67.98	2.04	1869.2	1.422
73.98	2.029	1983.2	1.394
79.98	2.027	2103.2	1.361
85.98	2.02	2229.2	1.341
92.58	2.019	2361.2	1.309
99.78	2.02	2505.2	1.279
107.6	2.009	2655.2	1.253
115.4	2.004	2811.2	1.21
123.8	1.997	2979.2	1.176
132.8	1.993	3159.2	1.145
142.4	1.988	3345.2	1.126
152.	1.984	3549.2	1.089
162.8	1.977	3759.2	1.032
174.2	1.972	3981.2	1.017
186.2	1.968	4221.2	0.972
198.8	1.957	4473.2	0.918
212.	1.957	4737.2	0.895
226.4	1.945	5019.2	0.848
241.4	1.949	5319.2	0.797
257.	1.943	5637.2	0.75
273.8	1.938	5973.2	0.726
291.8	1.92	6333.2	0.674
310.4	1.906	6693.2	0.637
330.8	1.907	7113.2	0.59
351.8	1.901	7533.2	0.539
374.	1.879	7953.2	0.499
398.	1.868	8433.2	0.456
423.2	1.854	8973.2	0.408
449.6	1.848	9453.2	0.36
477.8	1.832		

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.936

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	3.189E-5	cm/sec
y0	2.044	ft

T = K*b = 0.001944 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	3.189E-5	2.9E-7	+/- 5.754E-7	109.9	cm/sec
y0	2.044	0.004242	+/- 0.008417	481.9	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 0.001944 cm²/sec

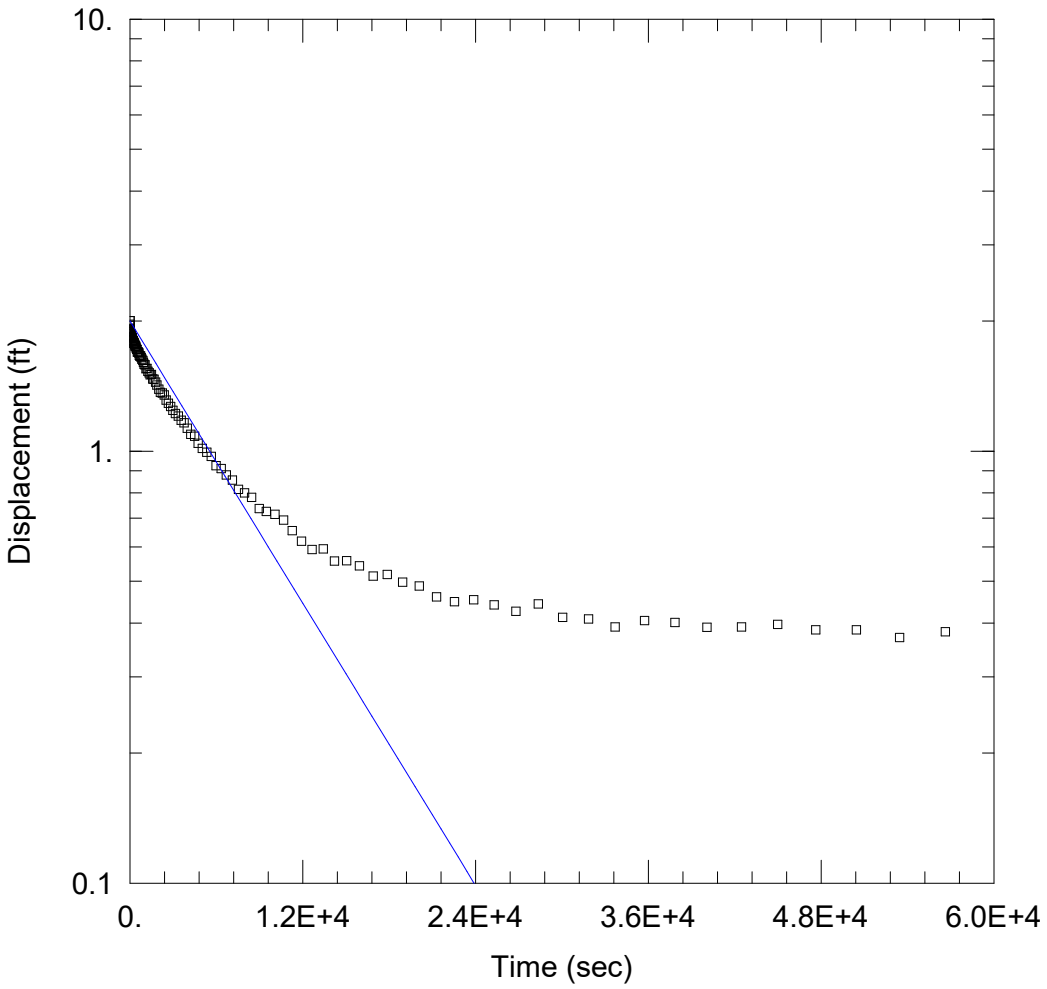
Parameter Correlations

	K	y0
K	1.00	0.50
y0	0.50	1.00

Residual Statistics

for weighted residuals

Sum of Squares. . . 0.09811 ft^2
Variance . . . . . 0.0009714 ft^2
Std. Deviation . . . . . 0.03117 ft
Mean . . . . . 0.001176 ft
No. of Residuals . . 103
No. of Estimates . . 2



AP-15D RECOVERY

Data Set: J:\...\AP-15D Recovery.aqt
Date: 09/02/25 Time: 10:03:13

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: AP-15D
Test Date: 8-19-25

AQUIFER DATA

Saturated Thickness: 2. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (AP-15D)

Initial Displacement: 2.004 ft
Total Well Penetration Depth: 29.85 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 23.3 ft
Screen Length: 2.4 ft
Well Radius: 0.08333 ft

SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice

K = 2.175E-5 cm/sec y0 = 2. ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\AP-15D\AP-15D Recov
Title: AP-15D Recovery
Date: 09/02/25
Time: 10:03:22

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-19-25
Test Well: AP-15D

AQUIFER DATA

Saturated Thickness: 2. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: AP-15D

X Location: 1127956.057 ft
Y Location: 2455904.276 ft

Initial Displacement: 2.004 ft
Static Water Column Height: 23.3 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 2.4 ft
Total Well Penetration Depth: 29.85 ft

No. of Observations: 152

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.004	746.5	1.662
0.6	1.965	788.5	1.646
1.2	1.953	836.5	1.632
1.8	1.914	890.5	1.621
2.46	1.923	938.5	1.606
3.18	1.92	998.5	1.59
3.96	1.924	1058.5	1.584
4.741	1.915	1118.5	1.551
5.581	1.91	1184.5	1.553
6.481	1.907	1256.5	1.531
7.44	1.903	1334.5	1.518
8.4	1.908	1412.5	1.502
9.481	1.901	1496.5	1.505
10.62	1.902	1586.5	1.468
11.82	1.911	1682.5	1.467
13.08	1.897	1778.5	1.443

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
14.4	1.893	1886.5	1.423
15.84	1.894	2000.5	1.392
17.34	1.89	2120.5	1.367
18.9	1.892	2246.5	1.362
20.58	1.892	2378.5	1.35
22.38	1.89	2522.5	1.313
24.24	1.89	2672.5	1.291
26.28	1.883	2828.5	1.268
28.38	1.879	2996.5	1.243
30.6	1.88	3176.5	1.222
33.	1.88	3362.5	1.205
35.52	1.877	3566.5	1.178
38.16	1.872	3776.5	1.163
40.98	1.871	3998.5	1.13
43.98	1.868	4238.5	1.093
47.16	1.869	4490.5	1.083
50.52	1.865	4754.5	1.043
54.12	1.86	5036.5	1.015
57.72	1.868	5336.5	0.994
61.92	1.86	5654.5	0.972
66.12	1.86	5990.5	0.925
70.32	1.857	6350.5	0.912
75.12	1.848	6710.5	0.881
80.52	1.851	7130.5	0.857
85.32	1.85	7550.5	0.815
91.32	1.847	7970.5	0.8
97.32	1.841	8450.5	0.782
103.3	1.843	8990.5	0.736
109.9	1.844	9470.5	0.725
117.1	1.835	1.007E+4	0.714
124.9	1.838	1.067E+4	0.692
132.7	1.837	1.127E+4	0.654
141.1	1.829	1.193E+4	0.619
150.1	1.826	1.265E+4	0.592
159.7	1.827	1.343E+4	0.594
169.3	1.818	1.421E+4	0.557
180.1	1.809	1.505E+4	0.558
191.5	1.806	1.595E+4	0.543
203.5	1.8	1.691E+4	0.514
216.1	1.802	1.787E+4	0.518
229.3	1.8	1.895E+4	0.497
243.7	1.797	2.009E+4	0.487
258.7	1.791	2.129E+4	0.46
274.3	1.783	2.255E+4	0.448
291.1	1.777	2.387E+4	0.453
309.1	1.775	2.531E+4	0.441
327.7	1.771	2.681E+4	0.426
348.1	1.762	2.837E+4	0.443
369.1	1.752	3.005E+4	0.412
391.3	1.752	3.185E+4	0.409
415.3	1.749	3.371E+4	0.392
440.5	1.734	3.575E+4	0.405
466.9	1.723	3.785E+4	0.401

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
495.1	1.72	4.007E+4	0.391
525.1	1.696	4.247E+4	0.392
556.9	1.698	4.499E+4	0.397
590.5	1.692	4.763E+4	0.386
626.5	1.687	5.045E+4	0.386
662.5	1.668	5.345E+4	0.37
704.5	1.659	5.663E+4	0.382

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.827

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	2.175E-5	cm/sec
y0	2.	ft

T = K*b = 0.001326 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	1.576E-5	6.205E-7	+/- 1.226E-6	25.39	cm/sec
y0	1.824	0.01479	+/- 0.02922	123.3	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 0.0009605 cm²/sec

Parameter Correlations

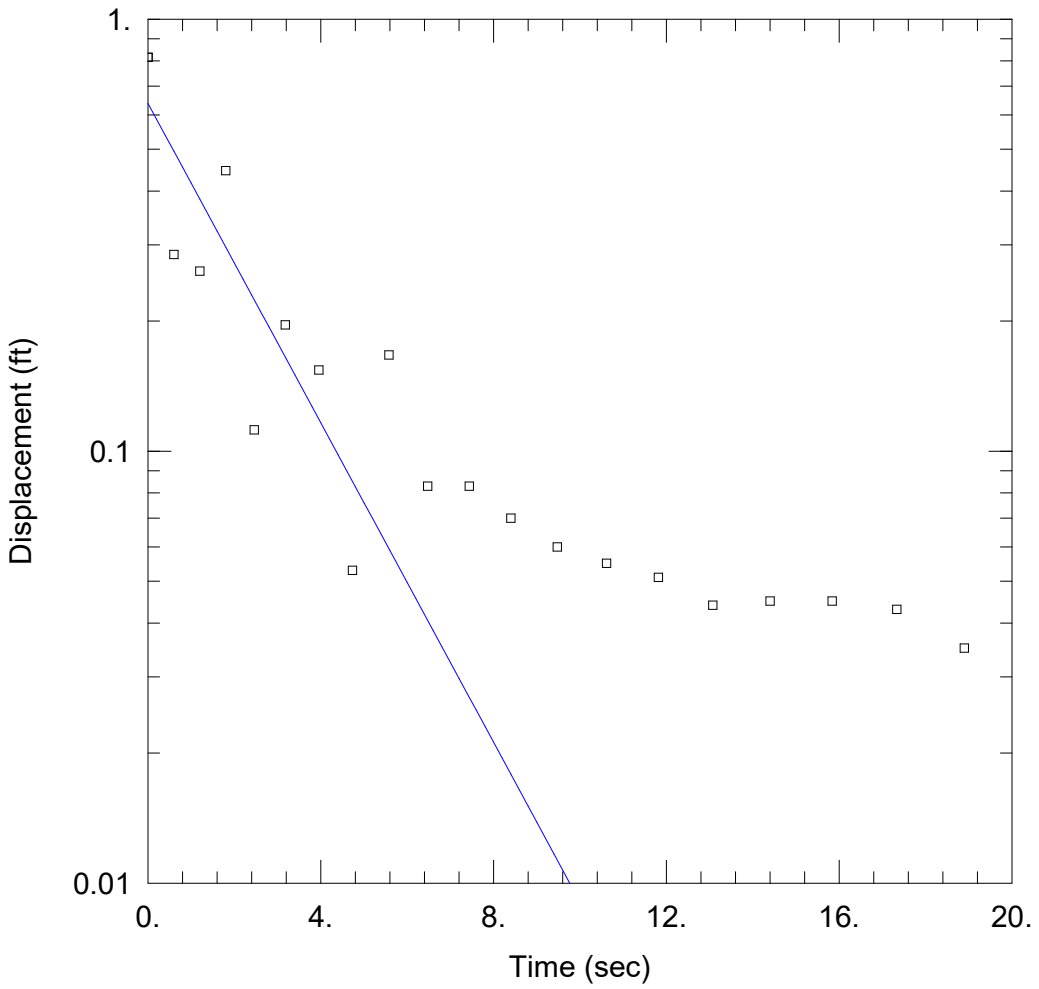
	K	y0
K	1.00	0.41
y0	0.41	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 2.758 ft^2
Variance ..... 0.01838 ft^2
Std. Deviation..... 0.1356 ft
Mean..... 0.03165 ft

No. of Residuals . . 152
No. of Estimates . . 2



AP-15S DRAWDOWN

Data Set: J:\...\AP-15S Drawdown.aqt
Date: 09/02/25 Time: 10:00:37

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: AP-15S
Test Date: 8-20-25

AQUIFER DATA

Saturated Thickness: 11.6 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (AP-15S)

Initial Displacement: 0.815 ft
Total Well Penetration Depth: 22.2 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 16.6 ft
Screen Length: 4.73 ft
Well Radius: 0.08333 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.03296 cm/sec
y0 = 0.6383 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\AP-15S\AP-15S Drawd
Title: AP-15S Drawdown
Date: 09/02/25
Time: 10:00:46

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-20-25
Test Well: AP-15S

AQUIFER DATA

Saturated Thickness: 11.6 ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: AP-15S

X Location: 1127960.672 ft
Y Location: 2455903.692 ft

Initial Displacement: 0.815 ft
Static Water Column Height: 16.6 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.73 ft
Total Well Penetration Depth: 22.2 ft

No. of Observations: 20

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	0.815	7.44	0.083
0.6	0.285	8.4	0.07
1.2	0.261	9.48	0.06
1.8	0.446	10.62	0.055
2.46	0.112	11.82	0.051
3.18	0.196	13.08	0.044
3.96	0.154	14.4	0.045
4.74	0.053	15.84	0.045
5.58	0.167	17.34	0.043
6.48	0.083	18.9	0.035

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice

ln(Re/rw): 4.038

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.03006	cm/sec
y0	0.6383	ft

T = K*b = 10.63 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.03296	0.006996	+/- 0.0147	4.712	cm/sec
y0	0.6383	0.0773	+/- 0.1624	8.258	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 11.66 cm²/sec

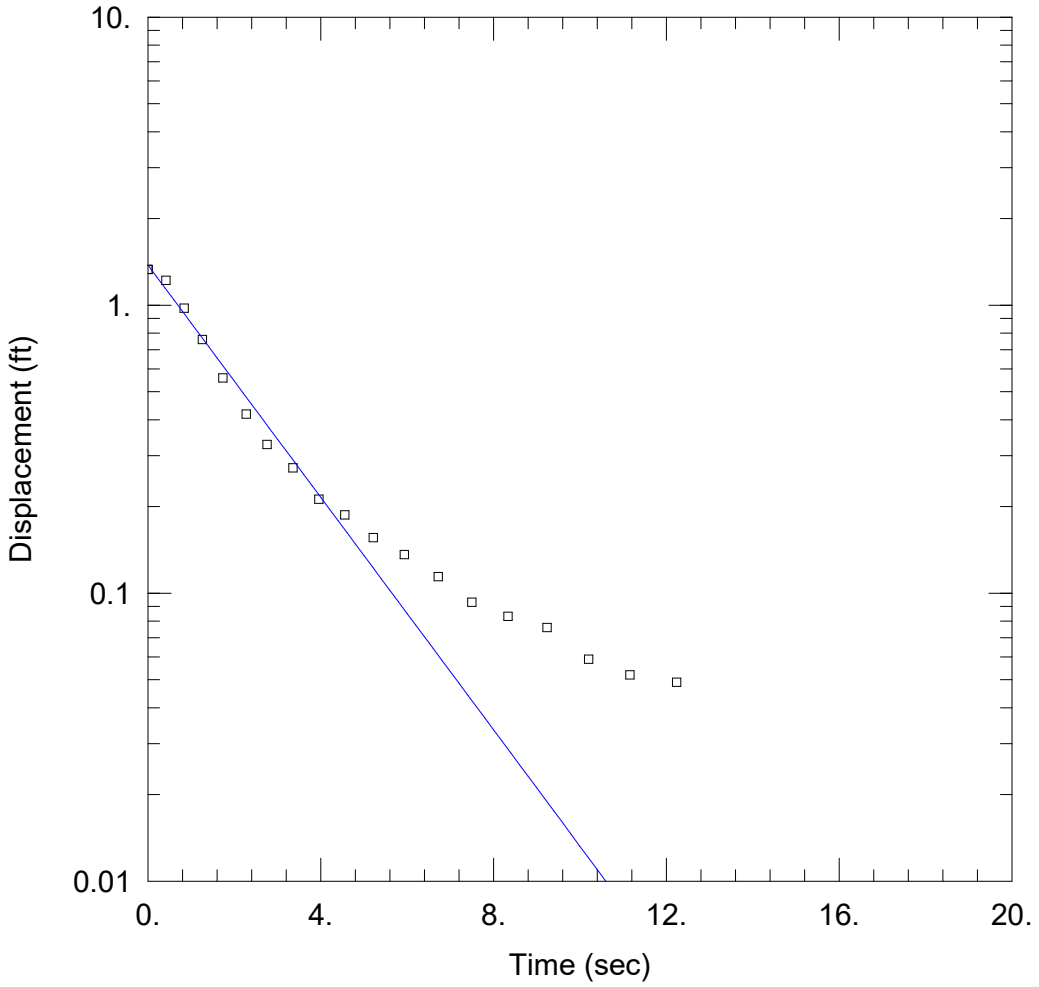
Parameter Correlations

	K	y0
K	1.00	0.61
y0	0.61	1.00

Residual Statistics

for weighted residuals

Sum of Squares. . . 0.1628 ft^2
Variance . . . . . 0.009046 ft^2
Std. Deviation . . . . . 0.09511 ft
Mean . . . . . 0.02632 ft
No. of Residuals . . 20
No. of Estimates . . 2



AP-15S RECOVERY

Data Set: J:\...\AP-15S Recovery.aqt
Date: 09/02/25 Time: 10:00:57

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: AP-15S
Test Date: 8-20-25

AQUIFER DATA

Saturated Thickness: 11.6 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (AP-15S)

Initial Displacement: 1.331 ft
Total Well Penetration Depth: 22.2 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 16.6 ft
Screen Length: 4.73 ft
Well Radius: 0.08333 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.03597 cm/sec
y0 = 1.378 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\AP-15S\AP-15S Recove
Title: AP-15S Recovery
Date: 09/02/25
Time: 10:01:11

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-20-25
Test Well: AP-15S

AQUIFER DATA

Saturated Thickness: 11.6 ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: AP-15S

X Location: 1127960.672 ft
Y Location: 2455903.692 ft

Initial Displacement: 1.331 ft
Static Water Column Height: 16.6 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 1. ft
Screen Length: 4.73 ft
Total Well Penetration Depth: 22.2 ft

No. of Observations: 19

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.331	5.22	0.156
0.42	1.22	5.94	0.136
0.84	0.977	6.72	0.114
1.26	0.76	7.5	0.093
1.74	0.559	8.34	0.083
2.28	0.418	9.24	0.076
2.76	0.328	10.2	0.059
3.36	0.272	11.16	0.052
3.96	0.212	12.24	0.049
4.56	0.187		

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice

ln(Re/rw): 4.038

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.03597	cm/sec
y0	1.378	ft

T = K*b = 12.72 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.03597	0.00174	+/- 0.003672	20.67	cm/sec
y0	1.378	0.03803	+/- 0.08025	36.23	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 12.72 cm²/sec

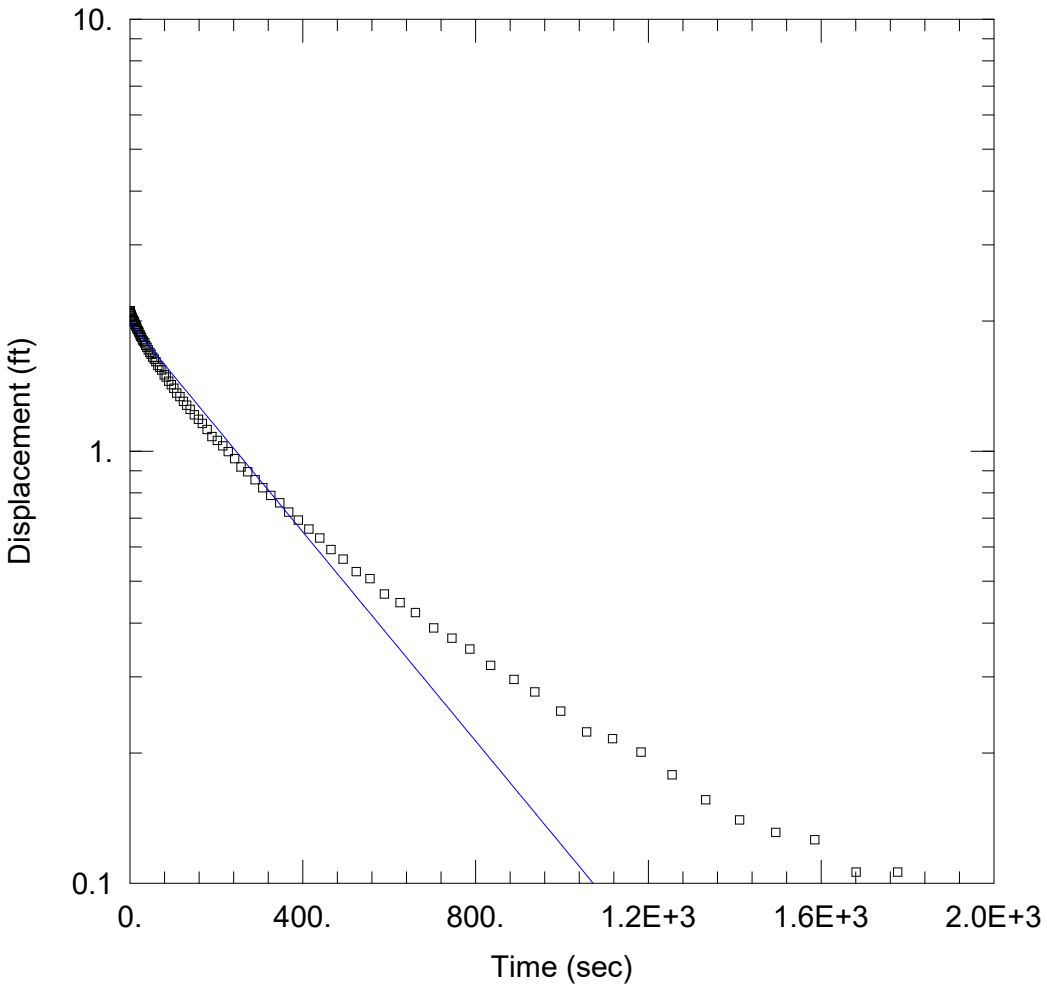
Parameter Correlations

	K	y0
K	1.00	0.63
y0	0.63	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 0.04332 ft^2
Variance ..... 0.002548 ft^2
Std. Deviation..... 0.05048 ft
Mean..... 0.01778 ft
No. of Residuals .. 19
No. of Estimates .. 2



AP-16 DRAWDOWN

Data Set: J:\...\AP-16 Drawdown.aqt
Date: 09/02/25 Time: 10:04:05

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: AP-16
Test Date: 8-20-25

AQUIFER DATA

Saturated Thickness: 7. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (AP-16)

Initial Displacement: 2.113 ft
Total Well Penetration Depth: 16.15 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 10.01 ft
Screen Length: 4.68 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice
K = 0.0002079 cm/sec y0 = 1.981 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\AP-16\AP-16 Drawdow
Title: AP-16 Drawdown
Date: 09/02/25
Time: 10:04:17

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-20-25
Test Well: AP-16

AQUIFER DATA

Saturated Thickness: 7. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: AP-16

X Location: 1131172.579 ft
Y Location: 2455836.828 ft

Initial Displacement: 2.113 ft
Static Water Column Height: 10.01 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.68 ft
Total Well Penetration Depth: 16.15 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.07715 ft
Gravel Pack Porosity: 0.

No. of Observations: 90

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.113	131.5	1.277
0.599	2.102	139.9	1.25
1.26	2.09	148.9	1.214
1.98	2.08	158.5	1.185
2.76	2.065	168.1	1.159
3.54	2.055	178.9	1.122
4.38	2.052	190.3	1.08
5.28	2.038	202.3	1.058
6.239	2.022	214.9	1.028
7.199	2.013	228.1	0.997
8.279	2.007	242.5	0.96
9.419	1.997	257.5	0.919
10.62	1.991	273.1	0.896
11.88	1.967	289.9	0.858

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
13.2	1.961	307.9	0.823
14.64	1.946	326.5	0.789
16.14	1.929	346.9	0.759
17.7	1.915	367.9	0.722
19.38	1.898	390.1	0.692
21.18	1.884	414.1	0.66
23.04	1.862	439.3	0.629
25.08	1.845	465.7	0.592
27.18	1.835	493.9	0.562
29.4	1.81	523.9	0.526
31.8	1.797	555.7	0.507
34.32	1.78	589.3	0.467
36.96	1.757	625.3	0.446
39.78	1.739	661.3	0.423
42.78	1.715	703.3	0.39
45.96	1.692	745.3	0.369
49.32	1.674	787.3	0.348
52.92	1.649	835.3	0.319
56.52	1.634	889.3	0.296
60.72	1.612	937.3	0.277
64.92	1.579	997.3	0.25
69.12	1.561	1057.3	0.224
73.92	1.54	1117.3	0.216
79.32	1.501	1183.3	0.201
84.12	1.484	1255.3	0.178
90.12	1.452	1333.3	0.156
96.12	1.424	1411.3	0.14
102.1	1.397	1495.3	0.131
108.7	1.362	1585.3	0.126
115.9	1.338	1681.3	0.106
123.7	1.304	1777.3	0.106

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.851

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0002079	cm/sec
y0	1.981	ft

T = K*b = 0.04436 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.0002079	5.116E-6	+/- 1.017E-5	40.64	cm/sec
y0	1.981	0.01501	+/- 0.02983	131.9	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 0.04436 cm²/sec

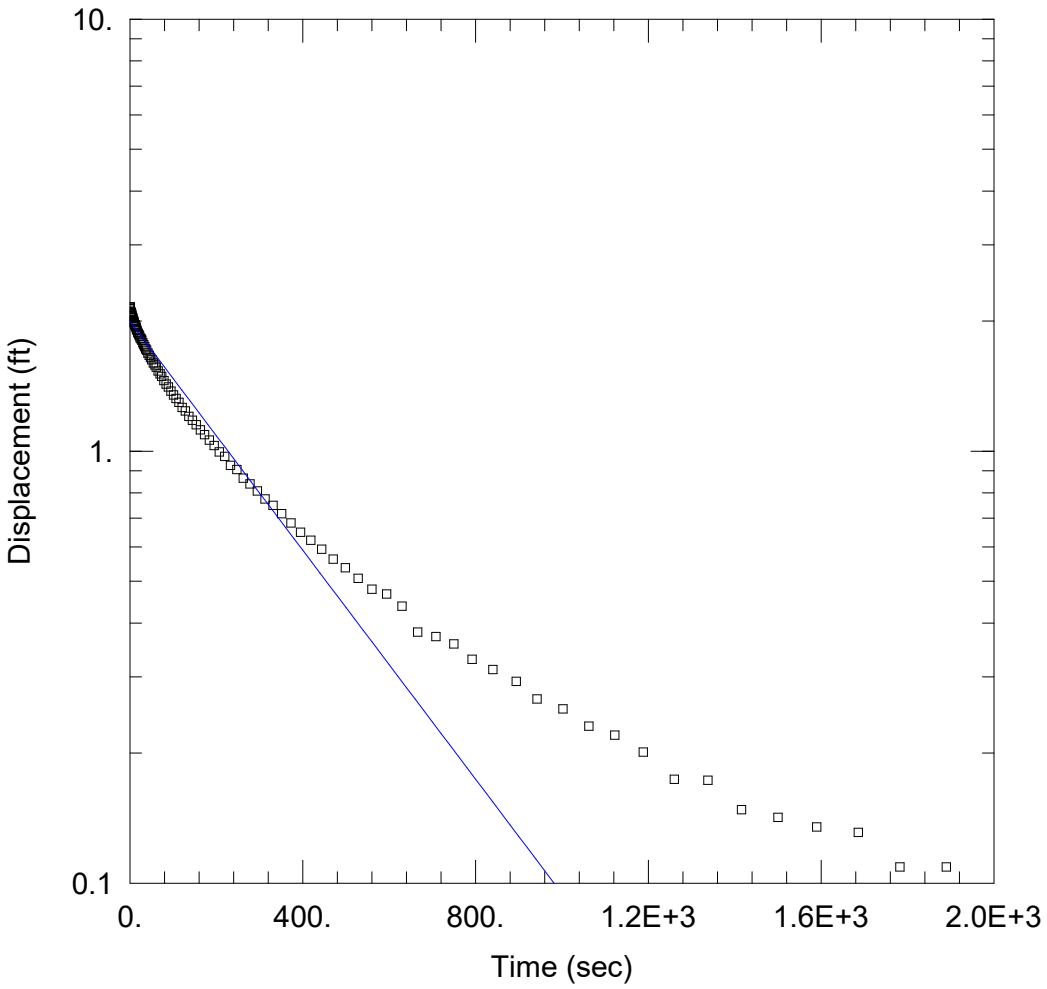
Parameter Correlations

	K	y0
K	1.00	0.56
y0	0.56	1.00

Residual Statistics

for weighted residuals

Sum of Squares. . . 0.5863 ft^2
Variance . . . . . 0.006662 ft^2
Std. Deviation . . . . . 0.08162 ft
Mean . . . . . 0.01914 ft
No. of Residuals . . 90
No. of Estimates . . 2



AP-16 RECOVERY

Data Set: J:\...\AP-16 Recovery.aqt
Date: 09/02/25 Time: 10:04:43

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Well: AP-16
Test Date: 8-20-25

AQUIFER DATA

Saturated Thickness: 7. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (AP-16)

Initial Displacement: 2.156 ft
Total Well Penetration Depth: 16.15 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 10.01 ft
Screen Length: 4.68 ft
Well Radius: 0.08333 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
K = 0.0002276 cm/sec
y0 = 1.997 ft

Data Set: J:\S\Springfield CWLP\CWLP Ash Pond\GEO\Slug Testing Data\Converted Files\AP-16\AP-16 Recovery.
Title: AP-16 Recovery
Date: 09/02/25
Time: 10:04:58

PROJECT INFORMATION

Company: Andrews Engineering
Client: CWLP
Project: 240338
Location: CWLP
Test Date: 8-20-25
Test Well: AP-16

AQUIFER DATA

Saturated Thickness: 7. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: AP-16

X Location: 1131172.579 ft
Y Location: 2455836.828 ft

Initial Displacement: 2.156 ft
Static Water Column Height: 10.01 ft
Casing Radius: 0.08333 ft
Well Radius: 0.08333 ft
Well Skin Radius: 0.3438 ft
Screen Length: 4.68 ft
Total Well Penetration Depth: 16.15 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.07715 ft
Gravel Pack Porosity: 0.

No. of Observations: 102

Observation Data			
Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.156	101.	1.35
0.25	2.153	107.	1.325
0.609	2.136	113.6	1.296
0.97	2.133	120.8	1.263
1.389	2.11	128.6	1.239
1.809	2.103	136.4	1.203
2.229	2.097	144.8	1.179
2.71	2.091	153.8	1.151
3.249	2.086	163.4	1.12
3.729	2.079	173.	1.091
4.329	2.067	183.8	1.06
4.929	2.063	195.2	1.03
5.529	2.046	207.2	0.995
6.189	2.038	219.8	0.972

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
6.909	2.033	233.	0.927
7.689	2.012	247.4	0.907
8.47	2.004	262.4	0.866
9.31	1.997	278.	0.839
10.21	1.984	294.8	0.808
11.17	1.962	312.8	0.775
12.13	1.959	331.4	0.749
13.21	1.942	351.8	0.716
14.35	1.935	372.8	0.682
15.55	1.917	395.	0.649
16.81	1.904	419.	0.622
18.13	1.886	444.2	0.593
19.57	1.872	470.6	0.562
21.07	1.858	498.8	0.537
22.63	1.846	528.8	0.508
24.31	1.827	560.6	0.479
26.11	1.818	594.2	0.467
27.97	1.805	630.2	0.438
30.01	1.782	666.2	0.381
32.11	1.764	708.2	0.372
34.33	1.745	750.2	0.358
36.73	1.725	792.2	0.33
39.25	1.713	840.2	0.312
41.89	1.686	894.2	0.293
44.71	1.666	942.2	0.267
47.71	1.646	1002.2	0.253
50.89	1.626	1062.2	0.231
54.25	1.6	1122.2	0.22
57.85	1.584	1188.2	0.201
61.45	1.564	1260.2	0.174
65.65	1.533	1338.2	0.173
69.85	1.509	1416.2	0.148
74.05	1.488	1500.2	0.142
78.85	1.456	1590.2	0.135
84.25	1.43	1686.2	0.131
89.05	1.408	1782.2	0.109
95.05	1.377	1890.2	0.109

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.851

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0002276	cm/sec
y0	1.997	ft

T = K*b = 0.04857 cm²/sec

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	0.0002276	6.531E-6	+/- 1.296E-5	34.86	cm/sec
y0	1.997	0.01632	+/- 0.03239	122.3	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

T = K*b = 0.04857 cm²/sec

Parameter Correlations

	K	y0
K	1.00	0.53
y0	0.53	1.00

Residual Statistics

for weighted residuals

Sum of Squares. . . 0.9793 ft^2
Variance . . . . . 0.009793 ft^2
Std. Deviation . . . . . 0.09896 ft
Mean . . . . . 0.02408 ft
No. of Residuals . . 102
No. of Estimates . . 2

PACKER TEST DATA

Packer Test Summary Table
CWLP Ash Pond Investigation

Boring	Bottom of Top Packer (ft. BGS)	Top of Bottom Packer (ft. BGS)	Hydraulic Conductivity	Formation	Comment
B100	93	103.5	1.00E-09	shale w/ claystone, limestone interbeddings	No take
B100	93	103.5	2.69E-07	shale w/ claystone, limestone interbeddings	took .05 gallons during test
B100	93	103.5	1.00E-09	shale w/ claystone, limestone interbeddings	No take
B100	93	103.5	1.00E-09	shale w/ claystone, limestone interbeddings	No take
B100	93	103.5	1.00E-09	shale w/ claystone, limestone interbeddings	No take
B100	82.5	93	1.00E-09	shale w/ claystone interbeddings	No take, switch gauges from 0-200 psi to 0-100 psi prior to test.
B100	82.5	93	1.00E-09	shale w/ claystone interbeddings	No take
B100	82.5	93	1.00E-09	shale w/ claystone interbeddings	No take
B100	82.5	93	1.00E-09	shale w/ claystone interbeddings	No take
B100	82.5	93	1.00E-09	shale w/ claystone interbeddings	No take
B100	72	82.5	1.00E-09	shale w/ claystone interbeddings	No take
B100	72	82.5	1.00E-09	shale w/ claystone interbeddings	No take
B100	72	82.5	1.00E-09	shale w/ claystone interbeddings	No take
B100	72	82.5	1.00E-09	shale w/ claystone interbeddings	No take
B100	72	82.5	1.00E-09	shale w/ claystone interbeddings	No take
B100	61.5	72	1.00E-09	shale w/ claystone interbeddings	No take
B100	61.5	72	1.00E-09	shale w/ claystone interbeddings	No take
B100	61.5	72	2.60E-07	shale w/ claystone interbeddings	
B100	61.5	72	4.33E-07	shale w/ claystone interbeddings	
B100	61.5	72	2.60E-07	shale w/ claystone interbeddings	
B100	51	61.5	1.00E-09	shale w/ claystone interbeddings	No take
B100	51	61.5	1.00E-09	shale w/ claystone interbeddings	No take
B100	51	61.5	1.20E-06	shale w/ claystone interbeddings	pressure drpped on 60 psi test so next test terminated.
B100	40.5	51	1.28E-05	shale w/ claystone interbeddings	
B100	40.5	51	3.17E-04	shale w/ claystone interbeddings	pressure drpped on 45 psi test so next test terminated.
B100	38.5	49	3.91E-05	shale	packer blowout. Replace backer and resumed test.
B100	38.5	49	4.26E-04	shale	could only maintain 28 psi on the planned 30 psi test.

Packer Test Solution - CWLP Ash Ponds - Springfield, IL.

"Methods and procedures for defining aquifer parameters" (by John Sevee);
in Practical Handbook of Ground-Water Monitor`

Friction loss calculation using Hazen-Williams formula.
[Hf = (3.022)(v)^1.85(L) / (C)^1.85(D)^1.165]

Shale
Date: 5/23/2024
Boring B100
0.14 Radius of test hole (in ft.)
2.67 Gauge height above ground (in ft.)
4.9 Depth to Water Below Ground (in ft.) - Water level after filling boring before testing.

Test No.	Bottom of Top Packer (ft)	Top of Bottom Packer (ft)	Depth [interval midpoint] (ft)	Length of Interval (ft)	Initial Gauge Reading (gal)	End Gauge Reading (gal)	Begin Time (min)	End Time (min)	Constant flow rate Q (in gal/min)	Static Head Hs (in feet)	Gauge pressure p (in psi)	Fluid head Hp = p * 2.3 (in feet)	Friction loss Hf (in feet)	Differential head Hs+Hp+Hg-Hf (in feet)		Hydraulic Cond K (in cm/sec)	Nat Log ln(L/r)	Inv Hyp Sin sinh-1 (L/2r)	Convert Q gal/min to cu ft/sec
1a	93	103.5	98.25	10.5	2711.65	2711.65	0	15	0	93.35	15	34.5	0	130.52	≦	1.00E-09	4.32	4.32	0.00E+00
1b	93	103.5	98.25	10.5	2711.8	2711.95	0	15	0.01	93.35	30	69	4.08E-05	165.02	≦	2.69E-07	4.32	4.32	2.23E-05
1c	93	103.5	98.25	10.5	2711.9	2711.9	0	15	0	93.35	45	103.5	0	199.52	≦	1.00E-09	4.32	4.32	0.00E+00
1d	93	103.5	98.25	10.5	2711.95	2711.95	0	15	0	93.35	60	138	0	234.02	≦	1.00E-09	4.32	4.32	0.00E+00
1e	93	103.5	98.25	10.5	2711.9	2711.9	0	15	0	93.35	45	103.5	0	199.52	≦	1.00E-09	4.32	4.32	0.00E+00
														mean K (cm/sec)		5.47E-08			

Shale
Date: 5/23/2024
Boring B100
0.14 Radius of test hole (in ft.)
2.67 Gauge height above ground (in ft.)
2.4 Depth to Water Below Ground (in ft.) - Water level after filling boring before testing.

Test No.	Bottom of Top Packer (ft)	Top of Bottom Packer (ft)	Depth [interval midpoint] (ft)	Length of Interval (ft)	Initial Gauge Reading (gal)	End Gauge Reading (gal)	Begin Time (min)	End Time (min)	Constant flow rate Q (in gal/min)	Static Head Hs (in feet)	Gauge pressure p (in psi)	Fluid head Hp = p * 2.3 (in feet)	Friction loss Hf (in feet)	Differential head Hs+Hp+Hg-Hf (in feet)		Hydraulic Cond K (in cm/sec)	Nat Log ln(L/r)	Inv Hyp Sin sinh-1 (L/2r)	Convert Q gal/min to cu ft/sec
1a	82.5	93	87.75	10.5	2712.35	2712.35	0	15	0	85.35	15	34.5	0	122.52	≦	1.00E-09	4.32	4.32	0.00E+00
1b	82.5	93	87.75	10.5	2712.4	2712.4	0	15	0	85.35	30	69	0	157.02	≦	1.00E-09	4.32	4.32	0.00E+00
1c	82.5	93	87.75	10.5	2712.4	2712.4	0	15	0	85.35	45	103.5	0	191.52	≦	1.00E-09	4.32	4.32	0.00E+00
1d	82.5	93	87.75	10.5	2712.4	2712.4	0	15	0	85.35	60	138	0	226.02	≦	1.00E-09	4.32	4.32	0.00E+00
1e	82.5	93	87.75	10.5	2712.4	2712.4	0	15	0	85.35	45	103.5	0	191.52	≦	1.00E-09	4.32	4.32	0.00E+00
														mean K (cm/sec)		1.00E-09			

Packer Test Solution - CWLP Ash Ponds - Springfield, IL.

"Methods and procedures for defining aquifer parameters" (by John Sevee);
in Practical Handbook of Ground-Water Monitor`

Friction loss calculation using Hazen-Williams formula.
[Hf = (3.022)(v)^1.85(L) / (C)^1.85(D)^1.165]

Shale
Date: 5/24/2024
Boring B100
0.14 Radius of test hole (in ft.)
2.67 Gauge height above ground (in ft.)
1.2 Depth to Water Below Ground (in ft.) - Water level after filling boring before testing.

Test No.	Bottom of Top Packer (ft)	Top of Bottom Packer (ft)	Depth [interval midpoint] (ft)	Length of Interval (ft)	Initial Gauge Reading (gal)	End Gauge Reading (gal)	Begin Time (min)	End Time (min)	Constant flow rate Q (in gal/min)	Static Head Hs (in feet)	Gauge pressure p (in psi)	Fluid head Hp = p * 2.3 (in feet)	Friction loss Hf (in feet)	Differential head Hs+Hp+Hg-Hf (in feet)		Hydraulic Cond K (in cm/sec)	Nat Log ln(L/r)	Inv Hyp Sin sinh-1 (L/2r)	Convert Q gal/min to cu ft/sec
1a	72	82.5	77.25	10.5	2717.85	2717.85	0	15	0	76.05	15	34.5	0	113.22	≦	1.00E-09	4.32	4.32	0.00E+00
1b	72	82.5	77.25	10.5	2717.85	2717.85	0	15	0	76.05	30	69	0	147.72	≦	1.00E-09	4.32	4.32	0.00E+00
1c	72	82.5	77.25	10.5	2717.85	2717.85	0	15	0	76.05	45	103.5	0	182.22	≦	1.00E-09	4.32	4.32	0.00E+00
1d	72	82.5	77.25	10.5	2717.85	2717.85	0	15	0	76.05	60	138	0	216.72	≦	1.00E-09	4.32	4.32	0.00E+00
1e	72	82.5	77.25	10.5	2717.85	2717.85	0	15	0	76.05	45	103.5	0	182.22	≦	1.00E-09	4.32	4.32	0.00E+00
														mean K (cm/sec)		1.00E-09			

Shale
Date: 5/24/2024
Boring B100
0.14 Radius of test hole (in ft.)
2.67 Gauge height above ground (in ft.)
2.2 Depth to Water Below Ground (in ft.) - Water level after filling boring before testing.

Test No.	Bottom of Top Packer (ft)	Top of Bottom Packer (ft)	Depth [interval midpoint] (ft)	Length of Interval (ft)	Initial Gauge Reading (gal)	End Gauge Reading (gal)	Begin Time (min)	End Time (min)	Constant flow rate Q (in gal/min)	Static Head Hs (in feet)	Gauge pressure p (in psi)	Fluid head Hp = p * 2.3 (in feet)	Friction loss Hf (in feet)	Differential head Hs+Hp+Hg-Hf (in feet)		Hydraulic Cond K (in cm/sec)	Nat Log ln(L/r)	Inv Hyp Sin sinh-1 (L/2r)	Convert Q gal/min to cu ft/sec
1a	61.5	72	66.75	10.5	2724.05	2724.05	0	15	0	64.55	15	34.5	0	101.72	≦	1.00E-09	4.32	4.32	0.00E+00
1b	61.5	72	66.75	10.5	2724.05	2724.05	0	15	0	64.55	30	69	0	136.22	≦	1.00E-09	4.32	4.32	0.00E+00
1c	61.5	72	66.75	10.5	2724.05	2724.2	0	15	0.01	64.55	45	103.5	2.77E-05	170.72	≦	2.60E-07	4.32	4.32	2.23E-05
1d	61.5	72	66.75	10.5	2724.2	2724.5	0	15	0.02	64.55	60	138	1.00E-04	205.22	≦	4.33E-07	4.32	4.32	4.46E-05
1e	61.5	72	66.75	10.5	2724.5	2724.65	0	15	0.01	64.55	45	103.5	2.77E-05	170.72	≦	2.60E-07	4.32	4.32	2.23E-05
														mean K (cm/sec)		1.91E-07			

Packer Test Solution - CWLP Ash Ponds - Springfield, IL.

"Methods and procedures for defining aquifer parameters" (by John Sevee);
in Practical Handbook of Ground-Water Monitor`

Friction loss calculation using Hazen-Williams formula.
[Hf = (3.022)(v)^1.85(L) / (C)^1.85(D)^1.165]

Shale
Date: 5/24/2024
Boring B100
0.14 Radius of test hole (in ft.)
2.67 Gauge height above ground (in ft.)
2.1 Depth to Water Below Ground (in ft.) - Water level after filling boring before testing.

Test No.	Bottom of Top Packer (ft)	Top of Bottom Packer (ft)	Depth [interval midpoint] (ft)	Length of Interval (ft)	Initial Gauge Reading (gal)	End Gauge Reading (gal)	Begin Time (min)	End Time (min)	Constant flow rate Q (in gal/min)	Static Head Hs (in feet)	Gauge pressure p (in psi)	Fluid head Hp = p * 2.3 (in feet)	Friction loss Hf (in feet)	Differential head Hs+Hp+Hg-Hf (in feet)		Hydraulic Cond K (in cm/sec)	Nat Log ln(L/r)	Inv Hyp Sin sinh-1 (L/2r)	Convert Q gal/min to cu ft/sec
1a	51	61.5	56.25	10.5	2732	2732	0	15	0	54.15	15	34.5	0	91.32	≦	1.00E-09	4.32	4.32	0.00E+00
1b	51	61.5	56.25	10.5	2732	2732	0	15	0	54.15	30	69	0	125.82	≦	1.00E-09	4.32	4.32	0.00E+00
1c	51	61.5	56.25	10.5	2732	2732.65	0	15	0.04	54.15	45	103.5	3.52E-04	160.32	≦	1.20E-06	4.32	4.32	9.65E-05
														mean K (cm/sec)		4.01E-07			

Shale
Date: 5/24/2024
Boring B100
0.14 Radius of test hole (in ft.)
2.67 Gauge height above ground (in ft.)
1.9 Depth to Water Below Ground (in ft.) - Water level after filling boring before testing.

Test No.	Bottom of Top Packer (ft)	Top of Bottom Packer (ft)	Depth [interval midpoint] (ft)	Length of Interval (ft)	Initial Gauge Reading (gal)	End Gauge Reading (gal)	Begin Time (min)	End Time (min)	Constant flow rate Q (in gal/min)	Static Head Hs (in feet)	Gauge pressure p (in psi)	Fluid head Hp = p * 2.3 (in feet)	Friction loss Hf (in feet)	Differential head Hs+Hp+Hg-Hf (in feet)		Hydraulic Cond K (in cm/sec)	Nat Log ln(L/r)	Inv Hyp Sin sinh-1 (L/2r)	Convert Q gal/min to cu ft/sec
1a	40.5	51	45.75	10.5	2814.4	2817.9	0	15	0.23	43.65	15	34.5	0.01	80.81	≦	1.28E-05	4.32	4.32	5.20E-04
1b	40.5	51	45.75	10.5	2718.8	2837.5	0	15	7.91	43.65	30	69	4.38	110.94	≦	3.17E-04	4.32	4.32	1.76E-02
														mean K (cm/sec)		1.65E-04			

Packer Test Solution - CWLP Ash Ponds - Springfield, IL.

"Methods and procedures for defining aquifer parameters" (by John Sevee);
in Practical Handbook of Ground-Water Monitor`

Friction loss calculation using Hazen-Williams formula.
[Hf = (3.022)(v)^1.85(L) / (C)^1.85(D)^1.165]

Shale

Date: 5/24/2024

Boring B100

0.14 Radius of test hole (in ft.)

2.67 Gauge height above ground (in ft.)

1.2 Depth to Water Below Ground (in ft.) - Water level after filling boring before testing.

Test No.	Bottom of Top Packer (ft)	Top of Bottom Packer (ft)	Depth [interval midpoint] (ft)	Length of Interval (ft)	Initial Gauge Reading (gal)	End Gauge Reading (gal)	Begin Time (min)	End Time (min)	Constant flow rate Q (in gal/min)	Static Head Hs (in feet)	Gauge pressure p (in psi)	Fluid head Hp = p * 2.3 (in feet)	Friction loss Hf (in feet)	Differential head Hs+Hp+Hg-Hf (in feet)		Hydraulic Cond K (in cm/sec)	Nat Log ln(L/r)	Inv Hyp Sin sinh-1 (L/2r)	Convert Q gal/min to cu ft/sec
1a	38.5	49	43.75	10.5	2914	2924.4	0	15	0.69	41.65	15	34.5	0.05	78.77	≦	3.91E-05	4.32	4.32	1.54E-03
1b	38.5	49	43.75	10.5	2925.8	3073	0	15	9.81	41.65	28	64.4	6.23	102.49	≦	4.26E-04	4.32	4.32	2.19E-02
														mean K (cm/sec)		2.32E-04			

APPENDIX E:
LABORATORY SOILS ANALYSES

APPENDIX E1:
APPLICATION LOG NO. 1995-243

Table 4
Summary of Laboratory Test Results for Creek Fill Materials

Boring/ Piezometer	Sample Number	Depth (ft)	USCS Symbol	Moisture Content (%)	Grain Size Analysis			Atterberg Limits			Dry Density (pcf)	Unconfined Compressive Strength (tsf)	Hydraulic Conductivity (cm/sec)	Cation Exchange Capacity (meq/100 gm)
					Gravel (%)	Sand (%)	Silt or Clay (%)	LL	PL	PI				
B-7	SS-4	6.0-8.0	CL	24.4	0	33	46/21*							
CB-1	3T-5	8.0-10.0	CL	27.4				44	23	18	95.5		$1.5x10^{-7}$	
CB-1	3T-5	8.0-10.0	CL	29.4							94.4	0.6		
CB-2	3T-9	16.0-18.0	ML	37.8				34	25	9	79.6		$2.4x10^{-7}$	
CB-3	SS-4	6.0-8.0	CL-ML	20.5	0	48	52							
CB-8	SS-3	4.0-6.0	OL	31.4				35	21	14				
CB-9	SS-5	8.0-10.0	OL	34.2										18.1
P-1D	SS-5	8.0-10.0	OL	20.4				46	20	26				
P-2D	3T-15	28.0-30.0	CL	25.9							99.1		$7.3x10^{-7}$	
P-1S	SS-2A	38.0-38.7	SC**	19.3	2	65	33							
P-3S	SS-3	10.0-12.0	SM**	-	0	55	45							
P-5D	SS-4	6.0-8.0	OL	31.8				45	25	20				
P-5S	3T-2	10.0-12.0	OL	26.3							95.7		$7.6x10^{-8}$	
P-8D	SS-4	60.-8.0	OL	25.3				37	21	16				
P-8S	SS-3	10.0-12.0	OL	41.0	0	12	62/26*							
B-13***	2-ST	5.0-7.0	CL/OL	37.2	0	2	67/31*	39	23	16	83.7		$2.2x10^{-7}$	14.0
B-16***	2-ST	5.0-7.0	CL/OL	22.1	0	5	67/28*	38	28	10	104.4		$2.1x10^{-7}$	16.0
P-9D** **	**3T-8**	**14.0-16.0**	**CL**	**22.7**							**102.3**		**$3.3x10^{-8}$**	

* *Represent percentages of silt and clay based on hydrometer analysis*
** *Granular Creek Fill*
*** *Based on PSI (1989) investigation*
**** *Berm Fill*

ref:hb\496b\496b-4.tbl

Table 5

Summary of Slug Test Results for Creek Fill

Location	Soil Type Tested	USCS Classification	Calculated Hydraulic Conductivity (cm/sec)		
			Recovery Test	Drawdown Test	Average Value
P-1S	Clayey sand	SC	2.4×10^{-4}	6.1×10^{-5}	1.5×10^{-4}
P-3S	Silty sand	SM	5.6×10^{-3}	1.5×10^{-2}	1.0×10^{-2}
P-5S	Organic silty clay	OL	7.1×10^{-5}	1.1×10^{-4}	8.6×10^{-5}
P-8S	Clayey sand	SC	1.2×10^{-4}	NT	1.2×10^{-4}

Refer to Appendix D for detailed test results.
NT = Not Tested

ref:hb/496b/496b-5.tbl

Table 6
Summary of Laboratory Test Results for Upper Cohesive Deposit

Boring/ Piezometer	Sample Number	Depth (ft)	USCS Symbol	Moisture Content (%)	Grain Size Analysis			Atterberg Limits			Dry Density (pcf)	Unconfined Compressive Strength (tsf)	Hydraulic Conductivity (cm/sec)	Cation Exchange Capacity (meq/100 gm)
					Gravel (%)	Sand (%)	Silt or Clay (%)	LL	PL	PI				
B-4	3T-4	6.0 - 8.0	CL	28.0							98.7		4.7×10^{-8}	
P-6D	SS-2	2.0 - 4.0	CL	21.2				29	18	11				
P-6S	SS-2A	6.0 - 6.5	CL	23.4	0	14	86							
P-7D	SS-3	4.0 - 6.0	CL	21.7				33	19	14				
P-7D	SS-4	6.0 - 8.0	CL	25.3										16.5
P-7D	3T-5	8.0 - 10.0	CL	22.6							101.2		2.0×10^{-7}	
P-7S	SS-1B	10.5 - 11.0	CL	-	0	43	40/17*							
B-5**	2-ST	5.0 - 7.0	CL/ML	24.3	0	18	63/19*	23	21	2	100.8		1.6×10^{-8}	11.0
B-15**	2-ST	5.0 - 7.0	CL/ML	23.9	0	15	62/23*	27	19	8	102.8		5.2×10^{-7}	12.0
B-16**	4-ST	10.0 - 12.0	CL/ML	24.2	0	40	55/5*	Non-Plastic			102.1		7.6×10^{-8}	10.0

* Represent percentages of silt and clay based on hydrometer analysis.
** Based on PSI (1989) investigation.

ref:hb\496b\496b-6.tbl

Table 7
Summary of Laboratory Test Results for Shallow Sand

Boring/ Piezometer	Sample Number	Depth (ft)	USCS Symbol	Moisture Content (%)	Grain Size Analysis			Atterberg Limits			Dry Density (pcf)	Unconfined Compressive Strength (tsf)	Hydraulic Conductivity (cm/sec)	Cation Exchange Capacity (meq/100 gm)
					Gravel (%)	Sand (%)	Silt or Clay (%)	LL	PL	PI				
B-1	SS-7	12.0 - 14.0	SC	21.8	0	50	50							
P-7D	SS-6B	11.5 - 12.0	SC	23.1	0	52	48							

ref:hb\496b\496b-7.tbl

** Represent percentages of silt and clay based on hydrometer analysis.*

Table 8

Summary of Slug Test Results for Shallow Sand

Location	Soil Type Tested	USCS Classification	Calculated Hydraulic Conductivity (cm/sec)		
			Recovery Test	Drawdown Test	Average Value
P-6S	Clayey sand	SC	2.9×10^{-2}	1.6×10^{-2}	2.2×10^{-2}
P-7S	Clayey sand	SC	3.6×10^{-3}	4.3×10^{-3}	3.9×10^{-3}

Refer to Appendix D for detailed test results
NT = Not Tested

ref:hb/496b/496b-8.tbl

Table 9
Summary of Laboratory Test Results for Lower Cohesive Deposits

Boring/ Piezometer	Sample Number	Depth (ft)	USCS Symbol	Moisture Content (%)	Grain Size Analysis			Atterberg Limits			Dry Density (pcf)	Unconfined Compressive Strength (tsf)	Hydraulic Conductivity (cm/sec)	Cation Exchange Capacity (meq/100 gm)
					Gravel (%)	Sand (%)	Silt or Clay (%)	LL	PL	PI				
B-1	SS-9	16.0 - 18.0	ML/CL-ML	36.9				25	22	3				
B-3	3T-20	38.0 - 40.0	CL	24.6							104.2		8.2×10^{-8}	
B-4	SS-8	12.0 - 14.0	CL	29.1	0	8	70/22*	32	20	12				
B-6	SS-10	18.0 - 20.0	CL-ML/CL	23.5				25	20	5				
B-6	SS-14	26.0 - 28.0	CL-ML	25.1	0	44	56							
B-7	SS-9	16.0 - 18.0	CL-ML	18.2	0	38	50/12*							
B-9	SS-8	14.0 - 16.0	CL	24.6										10.7
CB-2	SS-11	20.0 - 22.0	CL	34.9				47	22	25				
CB-3	SS-9	16.0 - 18.0	CL-ML	27.1	0	33	55/12*							
CB-4	3T-9	16.0 - 18.0	CL/CL-ML	23.9							103.3		4.3×10^{-7}	
CB-6	3T-7	12.0 - 14.0	CL	29.9							95.3		5.3×10^{-7}	
CB-6	3T-7	12.0 - 14.0	CL	26.4							99.0	1.4		
CB-6	SS-12	22.0 - 24.0	ML/CL-ML	23.6				23	20	3				
P-3D	3T-9	16.0 - 18.0	CL	34.5							89.2		1.3×10^{-8}	
P-3D	SS-13	24.0 - 26.0	CH	53.7				71	32	39				
P-4	3T-11	20.0 - 22.0	CH	40.9							78.2		2.9×10^{-8}	
P-4	SS-16	30.0 - 32.0	CH	52.6				67	30	37				
P-7D	SS-8	14.0 - 16.0	CL-ML/CL	26.9				29	22	7				
P-7D	SS-13	24.0 - 26.0	CL-ML	24.3	0	34	54/12*							
P-7M	3T-2	18.0 - 20.0	CL	22.5							101.4		1.5×10^{-7}	
P-9D	SS-26	50.0 - 52.0	CL	20.7	0	33	53/14*							
P-9S	3T-1	34.0 - 36.0	CL	24.1							101.2		1.3×10^{-6}	
B-2**	3-ST	10.0 - 12.0	CL-ML	22.9	0	32	58/10*	← Non-Plastic →			93.4		8.4×10^{-7}	9.0
B-2**	5-ST	15.0 - 17.0	CL	22.0	0	15	77/18*	30	18	12	104.9		5.1×10^{-7}	7.0
B-2**	7-ST	20.0 - 22.0	CL	23.1	0	38	50/12*	← Non-Plastic →			103.2		3.2×10^{-7}	6.0
B-13**	4-ST	10.0 - 12.0	CL-ML	21.7	0	48	42/10*	← Non-Plastic →			105.4		9.7×10^{-7}	8.0
B-13**	6-ST	15.0 - 17.0	CL-ML	24.8	0	20	62/18*	← Non-Plastic →			100.6		1.8×10^{-6}	

** Represent percentages of silt and clay based on hydrometer analysis.*

Table 10

Summary of Slug Test Results for Lower Cohesive Deposit

Location	Soil Type Tested	USCS Classification	Calculated Hydraulic Conductivity (cm/sec)		
			Recovery Test	Drawdown Test	Average Value
P-7M	Silty clay	CL	NT	7.6×10^{-5}	7.6×10^{-5}
P-9S	Silty clay	CL	NT	4.9×10^{-5}	4.9×10^{-5}

Refer to Appendix D for detailed test results
NT = Not Tested

ref:hb/496b/496b-10.tbl

Table 11
Summary of Laboratory Test Results for Basal Sand

Boring/ Piezometer	Sample Number	Depth (ft)	USCS Symbol	Moisture Content (%)	Grain Size Analysis			Atterberg Limits			Dry Density (pcf)	Unconfined Compressive Strength (tsf)	Hydraulic Conductivity (cm/sec)	Cation Exchange Capacity (meq/100 gm)
					Gravel (%)	Sand (%)	Silt or Clay (%)	LL	PL	PI				
B-4	SS-14	26.0-28.0	SC	17.6	0	56	44							
B-13	SS-14	26.0-28.0	SM	15.1	16	65	19							
CB-1	SS-13	24.0-26.0	SM	21.1	0	69	31							
CB-6	SS-14	26.0-28.0	SC	30.9	0	62	38							
P-1D	SS-25B	48.0-50.0	SC	21.1	0	64	36							
P-2D	SS-28A	54.0-54.5	SW-SM	-	3	91	6							
P-3D	SS-17B	33.0-33.5	SM	17.9	0	58	42							
P-4	SS-19	36.0-38.0	SW-SM	-	23	69	8							
P-5D	SS-14A	26.0-27.3	SM	-	29	54	17							
P-6D	SS-15	28.0-30.0	SM	14.6	23	55	22							
P-7D	SS-15	29.0-30.0	SW-SM/SM	10.9	27	59	14							
P-8D	SS-13A	24.0-25.5	SW-SM/SM	-	34	50	16							
P-9D	SS-29A	56.0-57.5	SP-SM/SM	-	22	66	12							

Table 12

Summary of Slug Test Results for Basal Sand

Location	Soil Type Tested	USCS Classification	Calculated Hydraulic Conductivity (cm/sec)		
			Recovery Test	Drawdown Test	Average Value
P-1D	Silty to clayey Sand to sand	SC/SM/SP	6.1×10^{-4}	1.1×10^{-3}	8.4×10^{-4}
P-3D	Silty sand	SM	1.6×10^{-2}	7.6×10^{-3}	1.2×10^{-2}
P-4	Silty sand	SP-SM/SM	2.0×10^{-3}	3.0×10^{-3}	2.5×10^{-3}
P-5D	Silty sand	SM/SW-SM	5.0×10^{-3}	3.8×10^{-3}	4.4×10^{-3}
P-6D	Silty sand	SM	3.6×10^{-2}	3.3×10^{-2}	3.4×10^{-2}
P-7D	Silty sand	SW-SM/SM	5.6×10^{-3}	6.1×10^{-3}	5.8×10^{-3}
P-8D	Silty sand to sand	SM/SW-SM	2.3×10^{-2}	3.0×10^{-2}	2.6×10^{-2}
P-9D	Silty sand	SM/SP-SM	7.2×10^{-4}	5.6×10^{-4}	6.4×10^{-4}

Refer to Appendix D for detailed test results.
NT = Not Tested

ref:hb/496b/496b-12.tbl

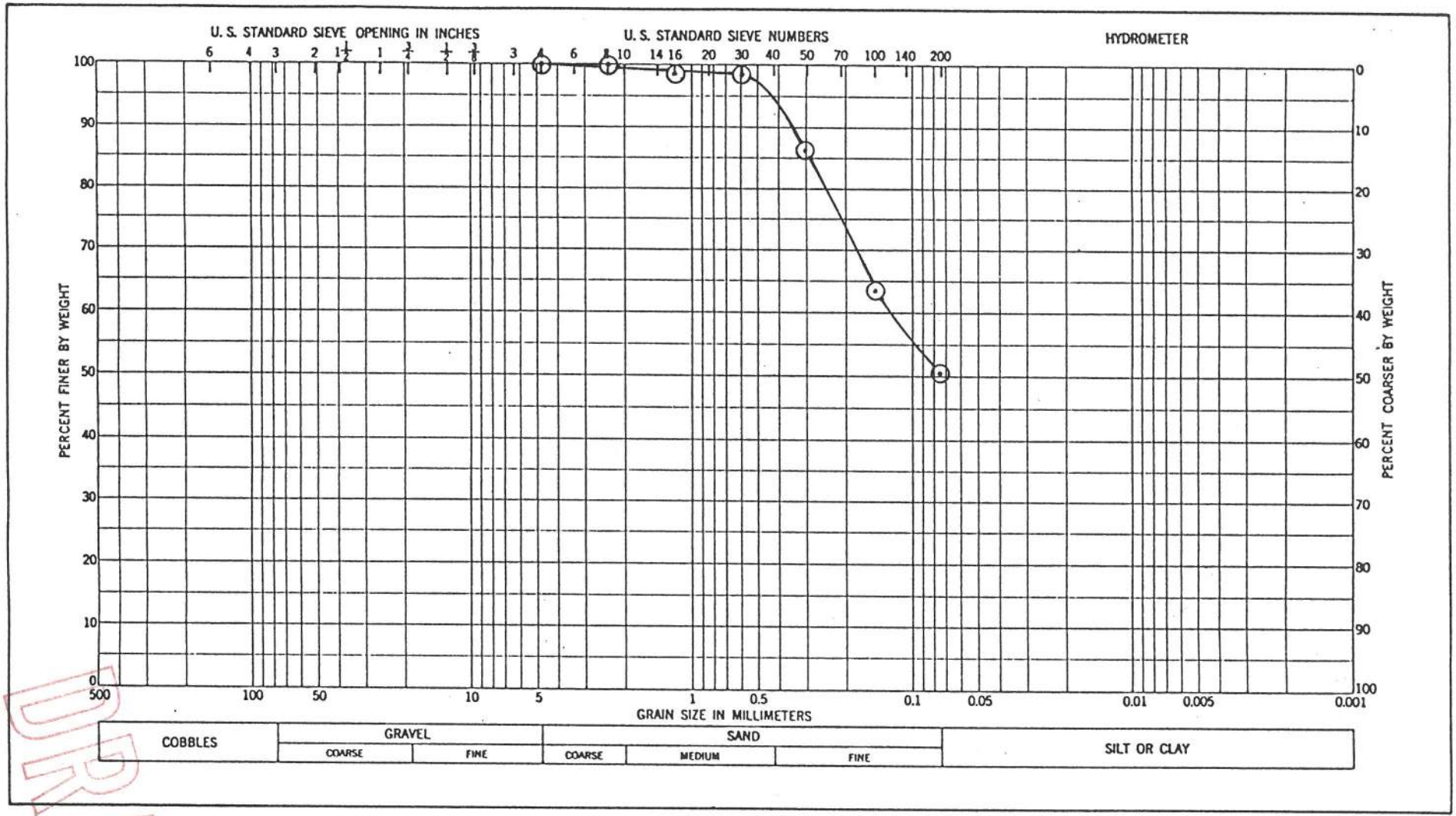
Table 13

Summary of Slug Test Results for Bedrock (Shale)

Location	Soil Type Tested	USCS Classification	Calculated Hydraulic Conductivity (cm/sec)		
			Recovery Test	Drawdown Test	Average Value
P-7R	Shale	-	NT	1.8×10^{-7}	1.8×10^{-7}
P-6R	Shale	-	NT	1.3×10^{-6}	1.3×10^{-6}

Refer to Appendix D for detailed test results
NT = Not Tested

ref:hb/496b/496b-13.tbl

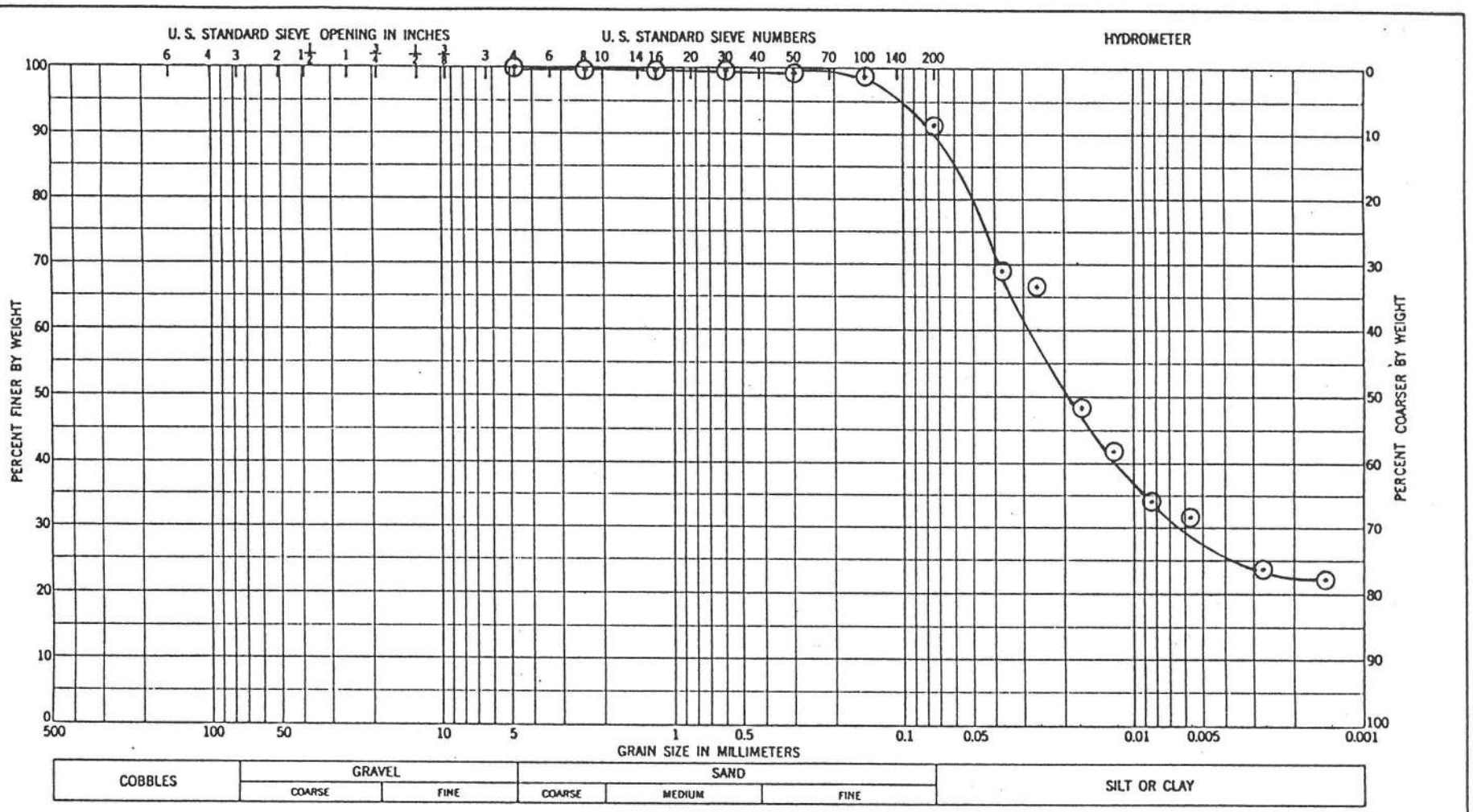


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
B-1	12.0'-14.0'	Gray clayey sand and	20.0				
SS-7		silt					
		SC					

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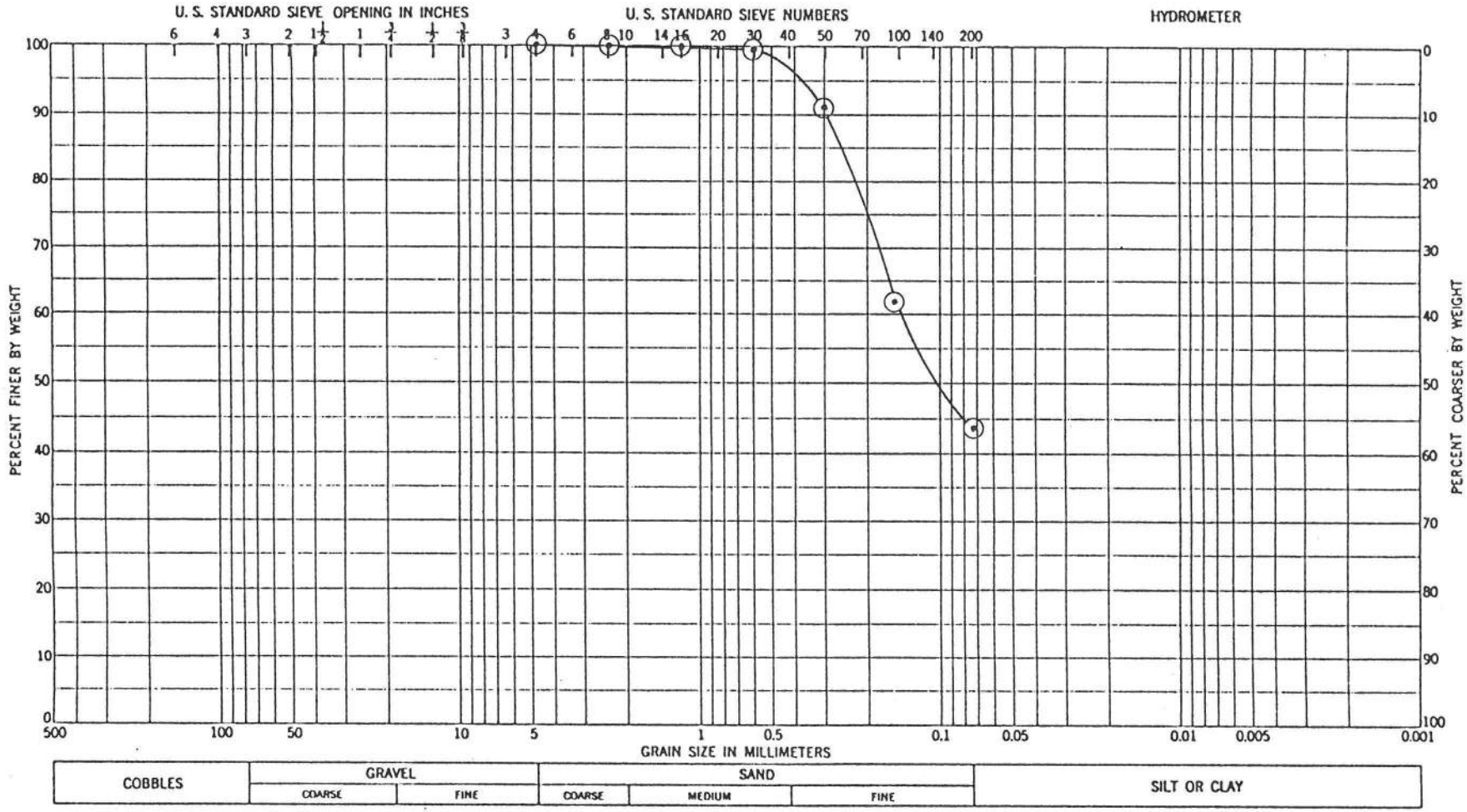


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
B-4	14.0'-16.0'	Dark gray silty clay,	29.1				
SS-8		trace fine sand					
		CL					

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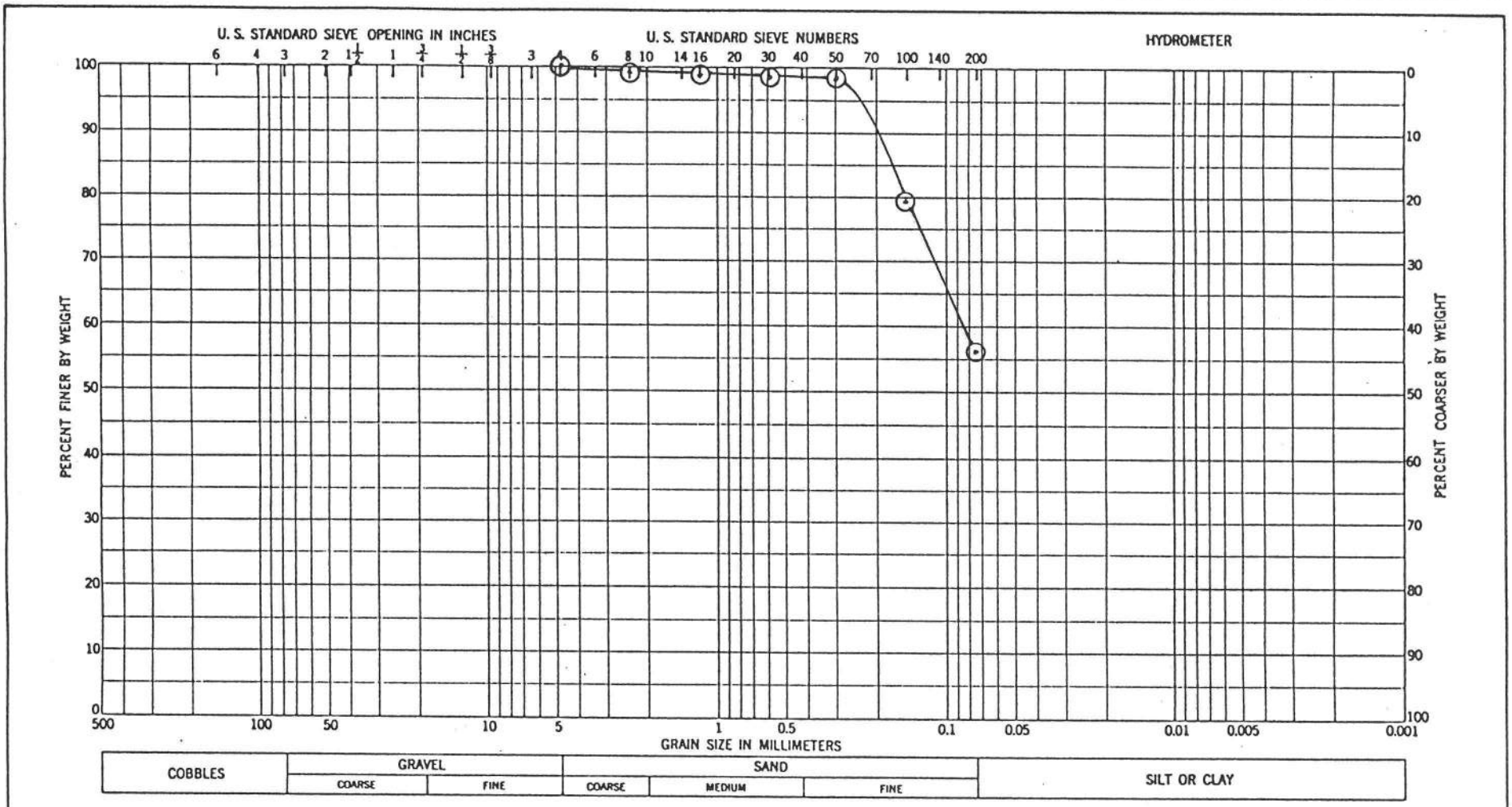


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
B-4	26.0'-28.0'	Gray clayey fine sand and	17.7				
SS-14		silt					
		SC					

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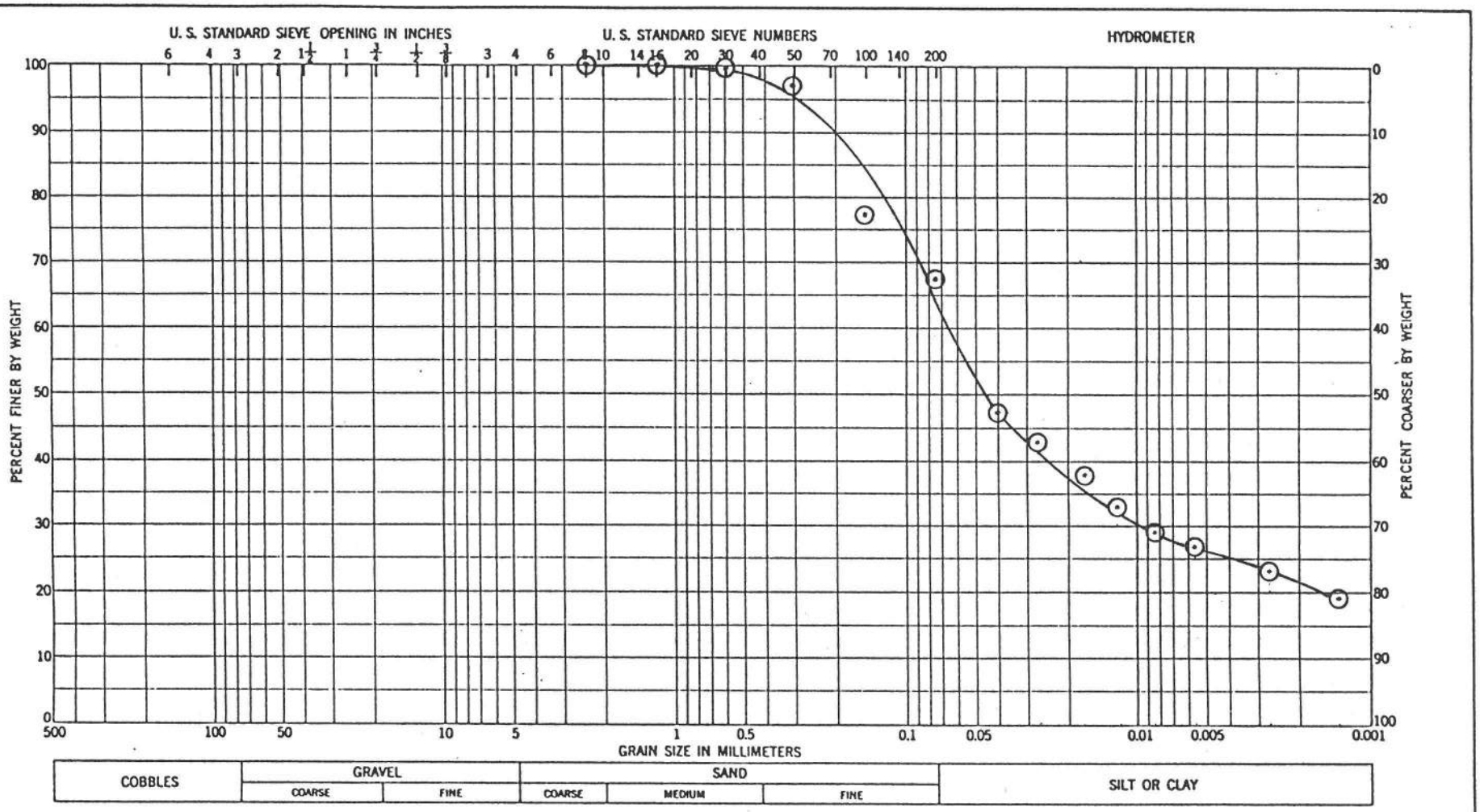


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
B-6	26.0'-28.0'	Gray clayey silt to clayey	24.6				
SS-14		sand					
		CL-ML/SC					

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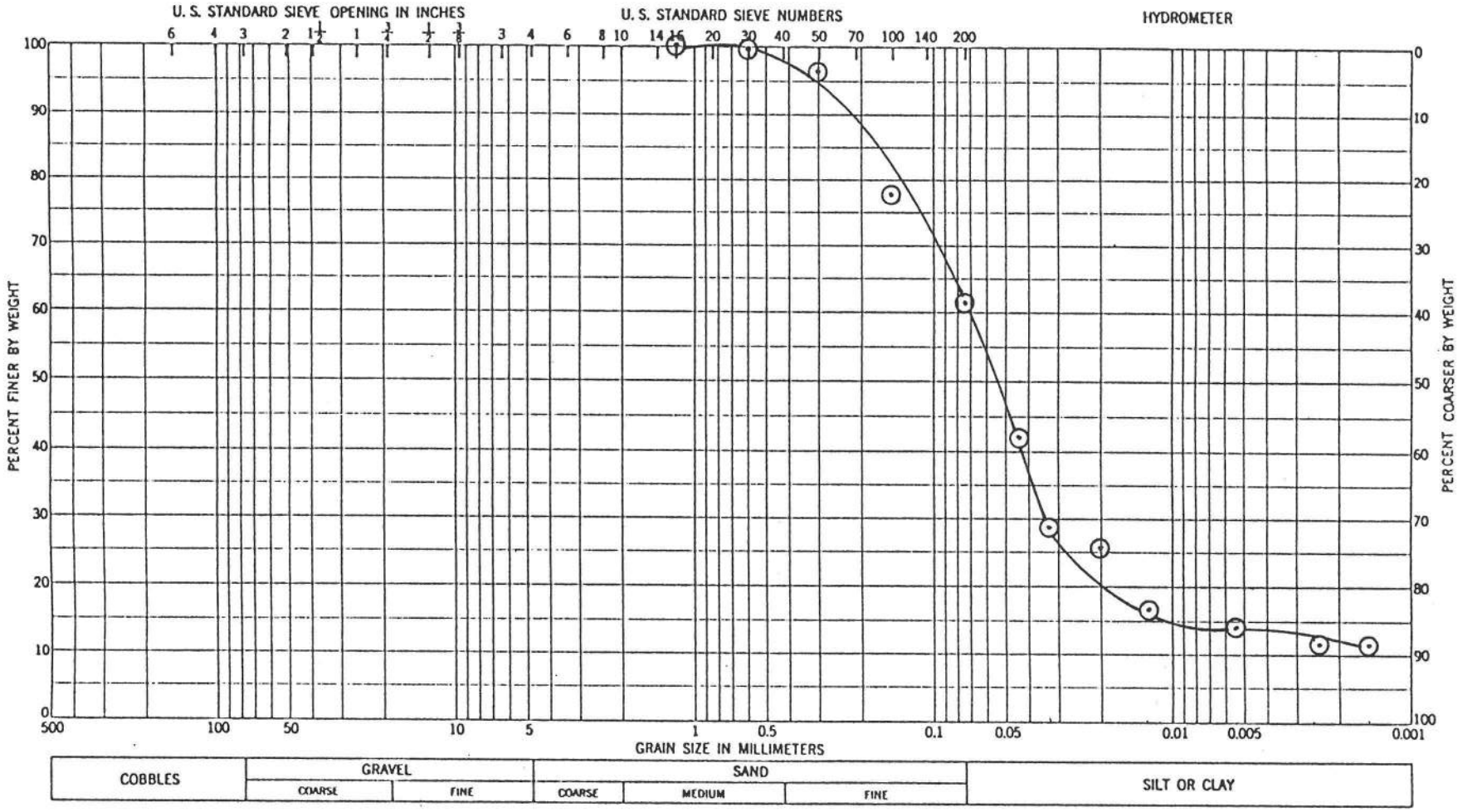


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
B-7	6.0'-8.0'	Gray silty clay and	24.4				
SS-4		medium to fine sand					
		CL					

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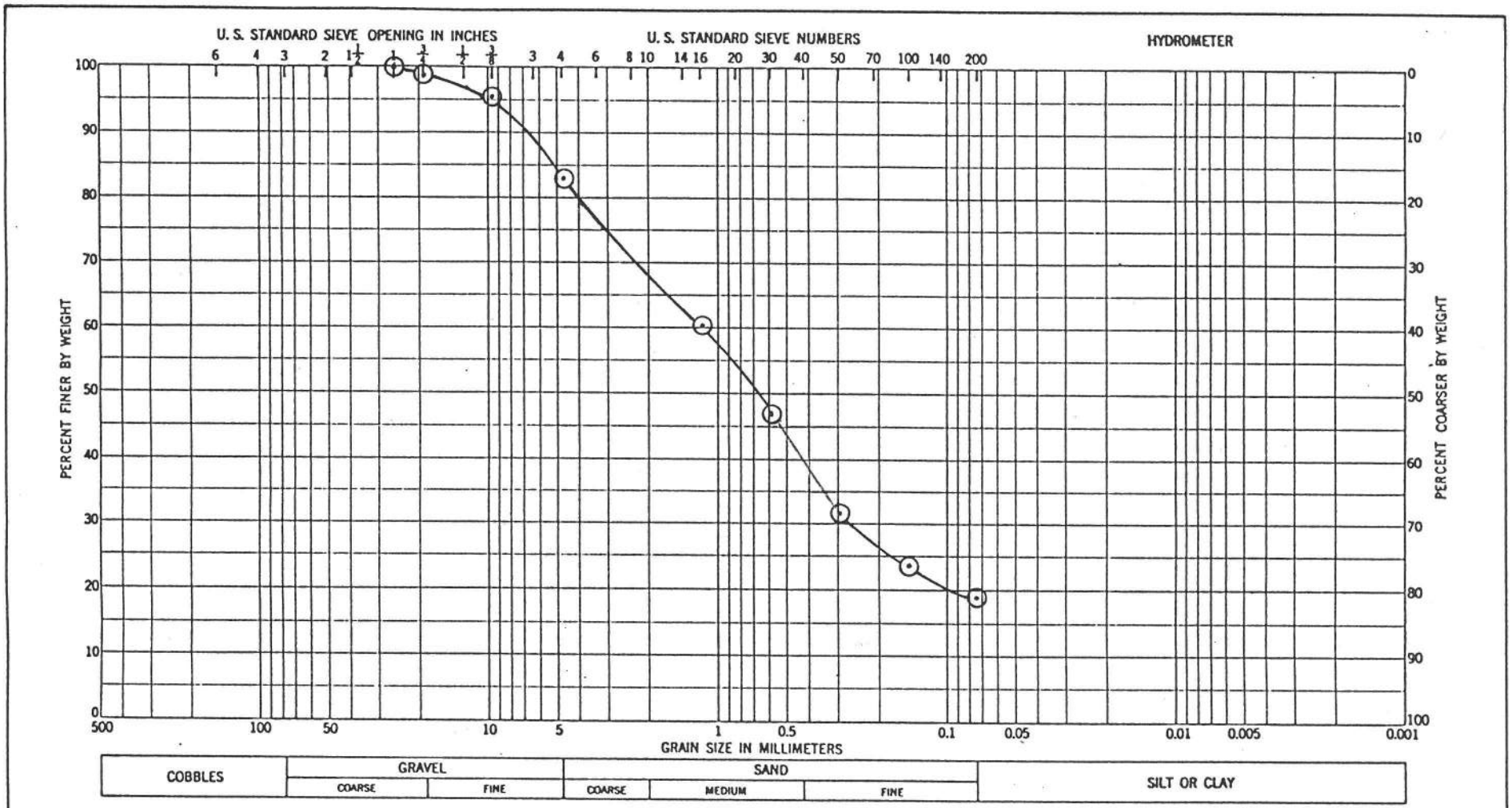


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
B-7	16.0'-18.0'	Gray clayey silt and fine	18.2				
SS-9		sand					
		CL-ML					

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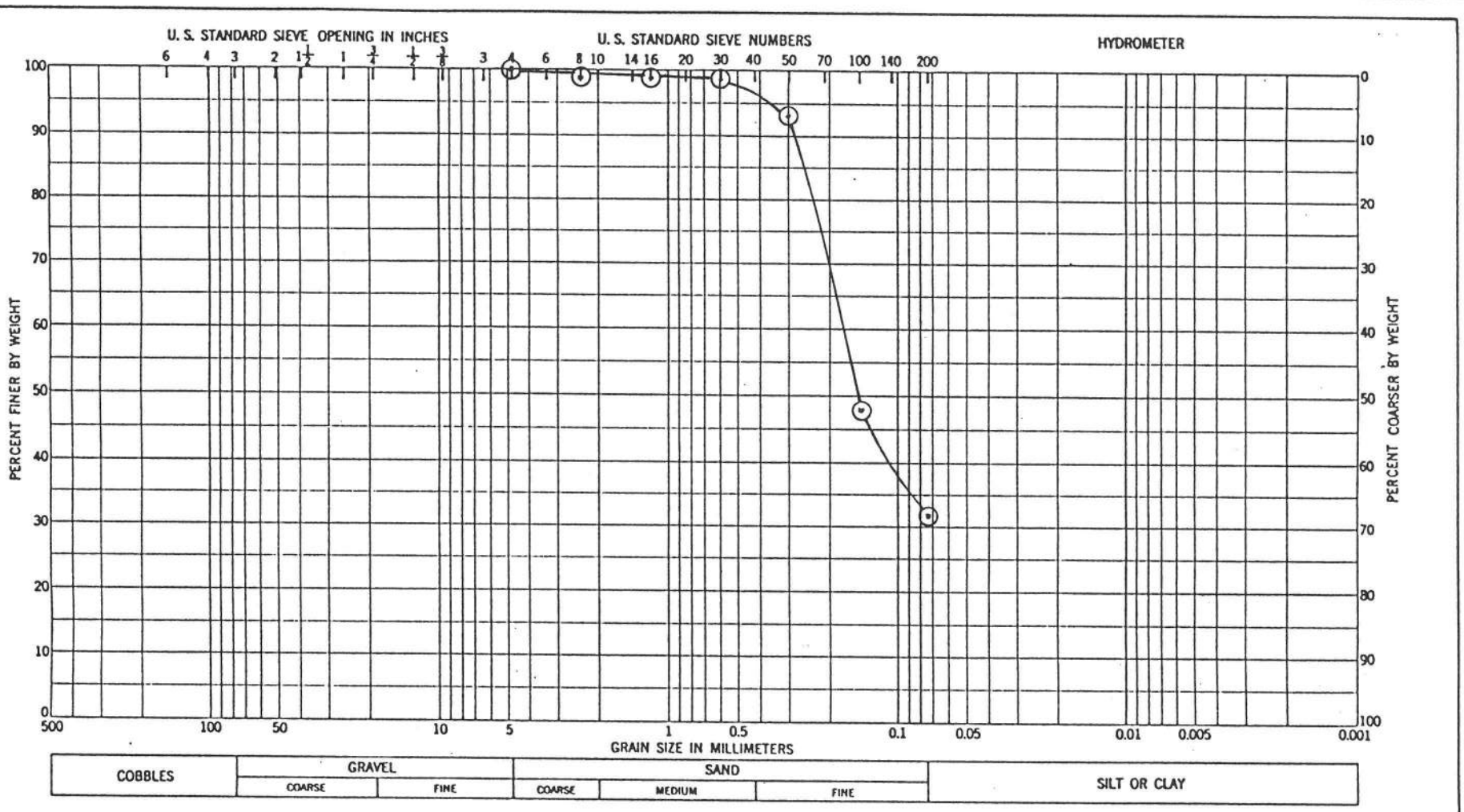


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
B-13	26.0'-28.0'	Gray coarse to fine sand,	14.3				
SS-14		little fine gravel, little					
		silt					
		SM					

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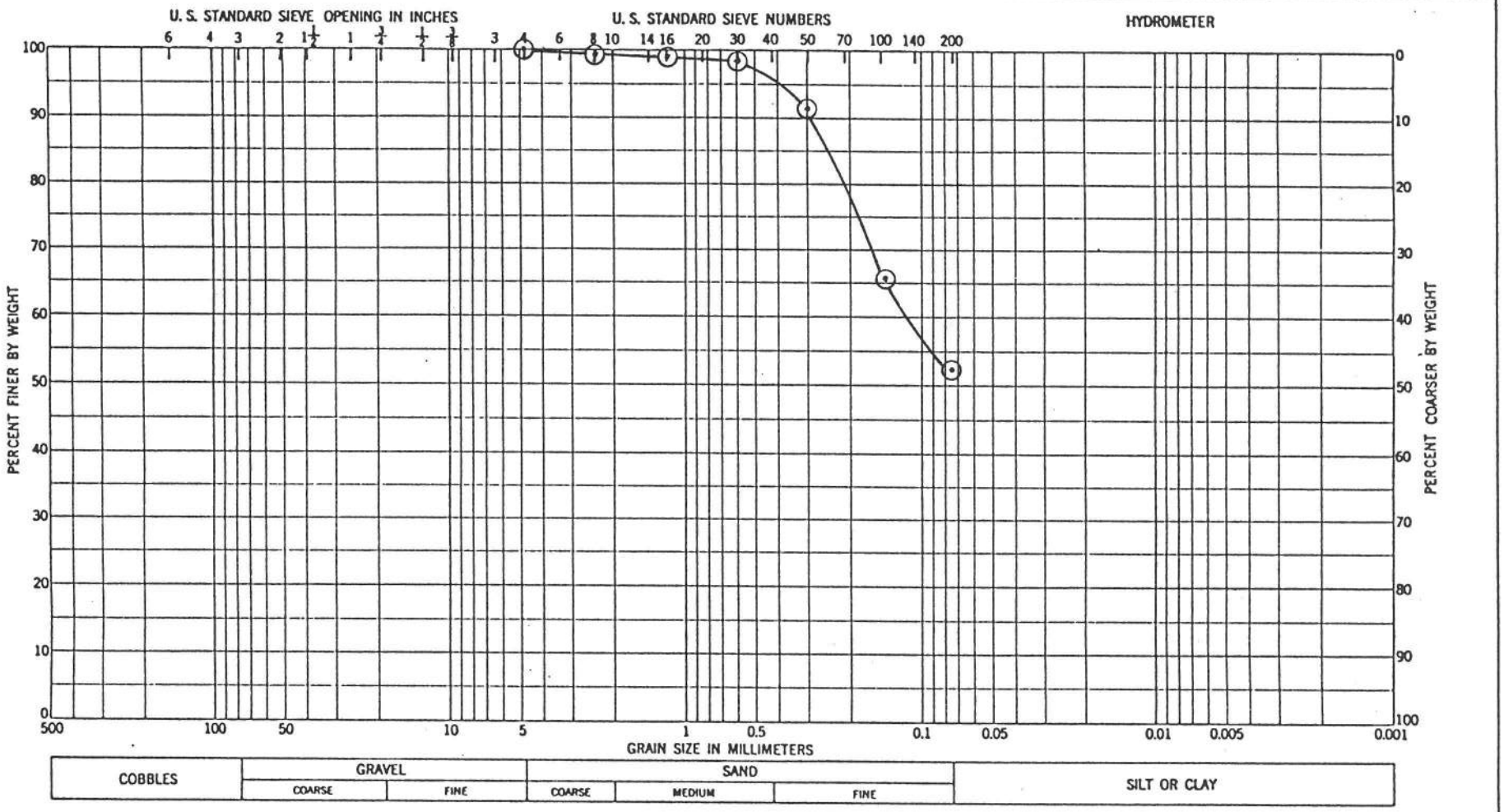


Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Remarks
CB-1	24.0'-26.0'	Gray medium to fine sand	21.1				
SS-13		and clayey silt					
		SM					

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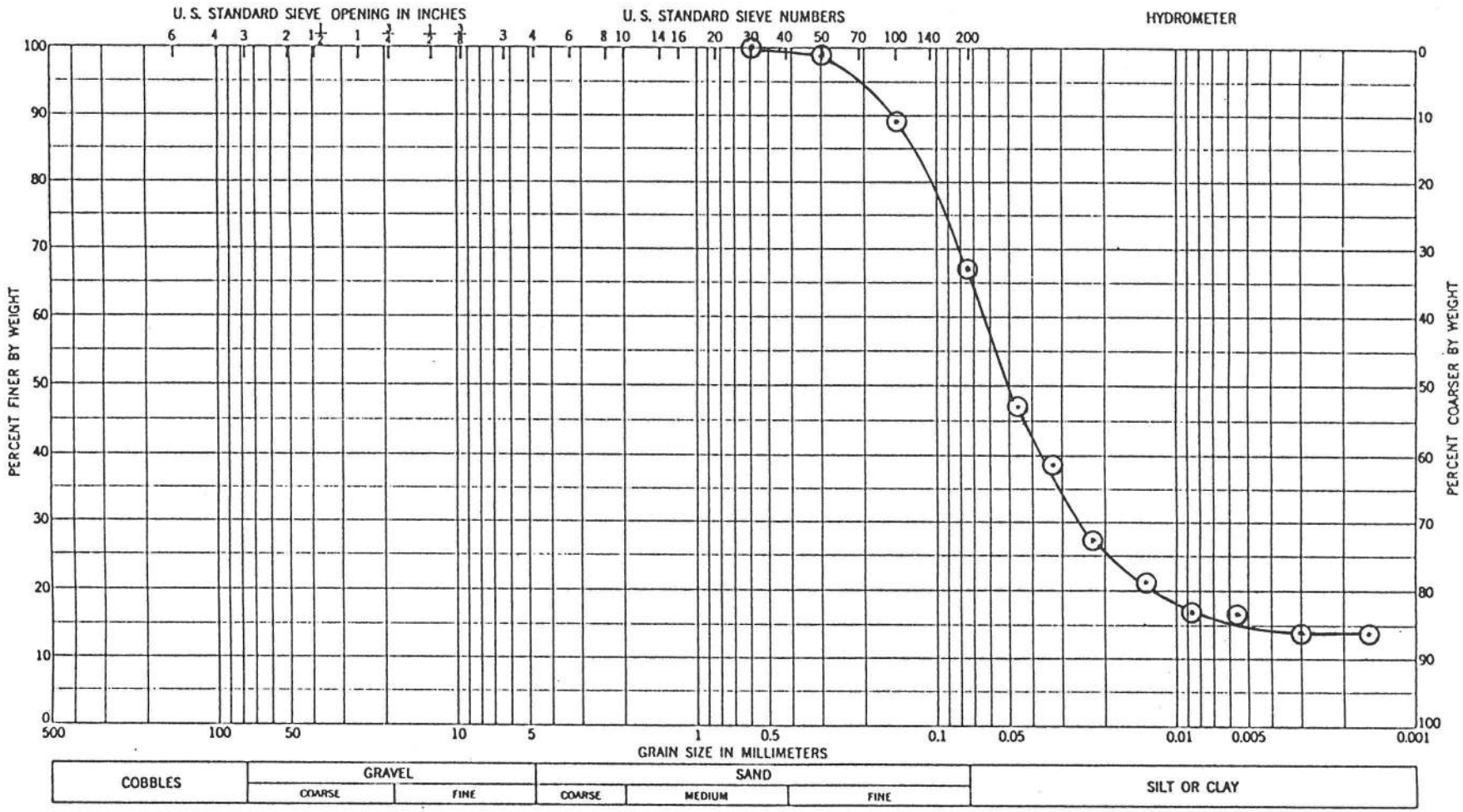


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
CB-3	6.0'-8.0'	Brown and tan clayey silt	20.5				
SS-4		and fine sand					
		CL-ML					

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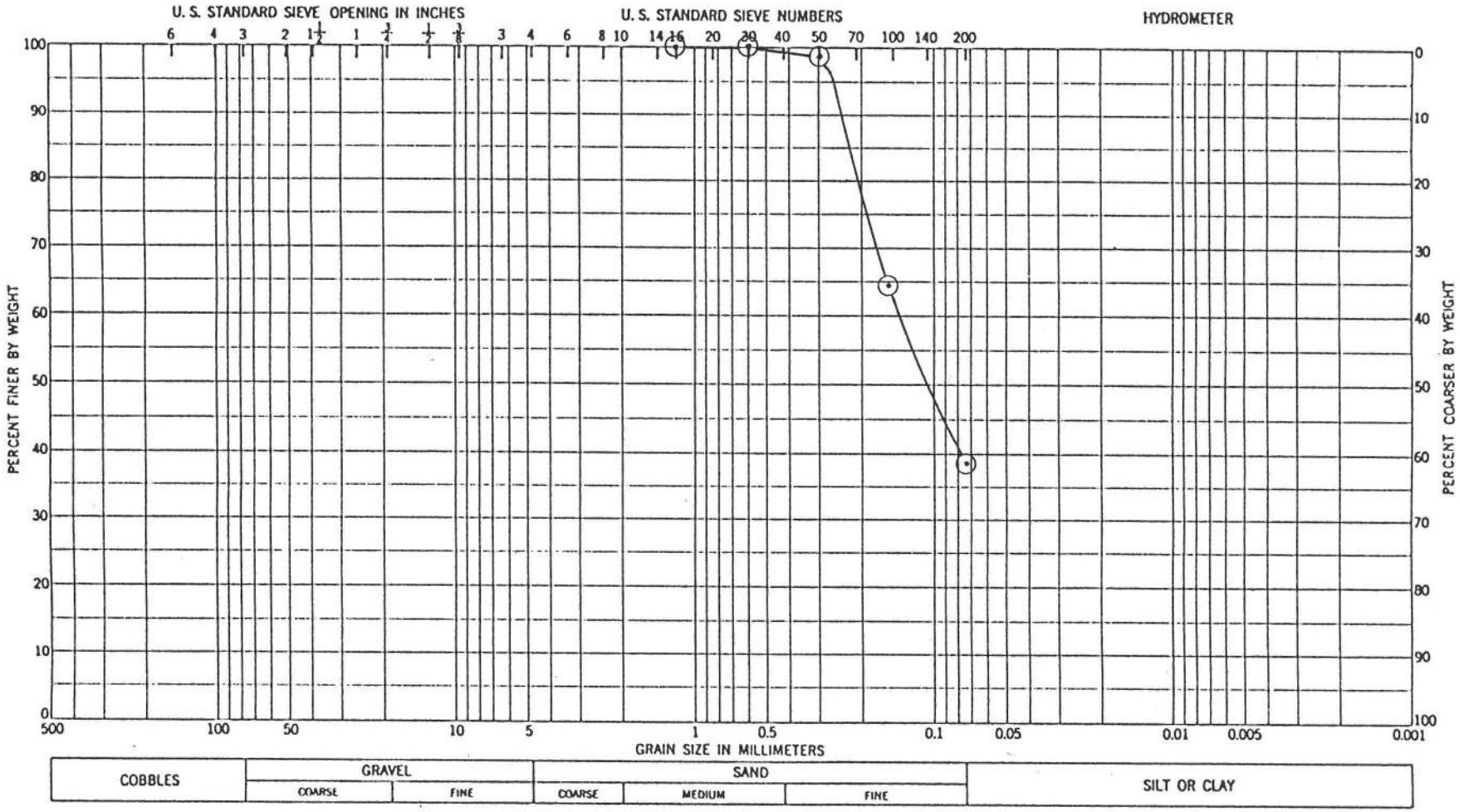


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
CB-3	16.0'-18.0'	Gray clayey silt and fine	22.6				
SS-9		sand					
		CL-ML					

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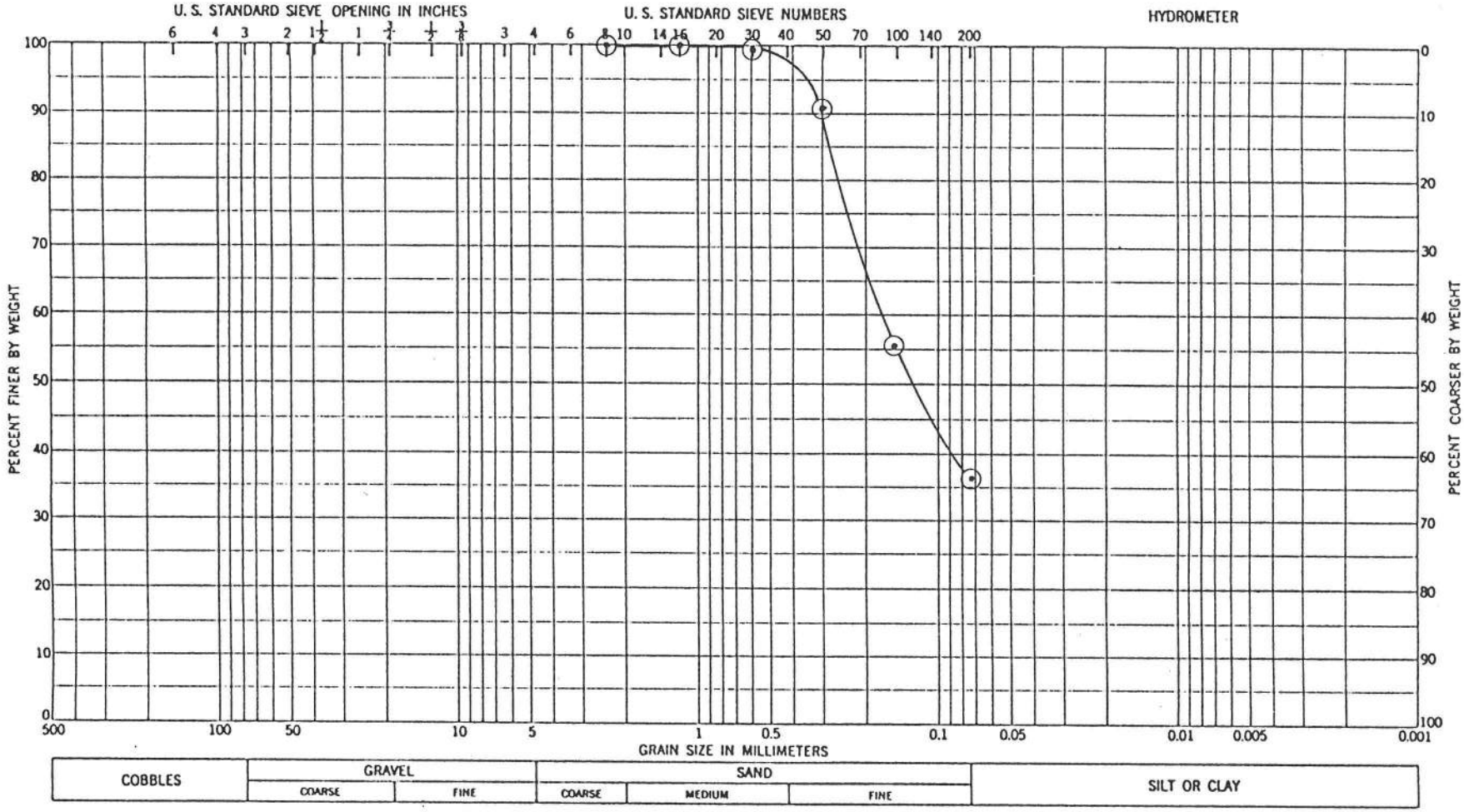


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
CB-6	26.0'-28.0'	Gray clayey fine sand and	26.1				
SS-14		silt					
		SC					

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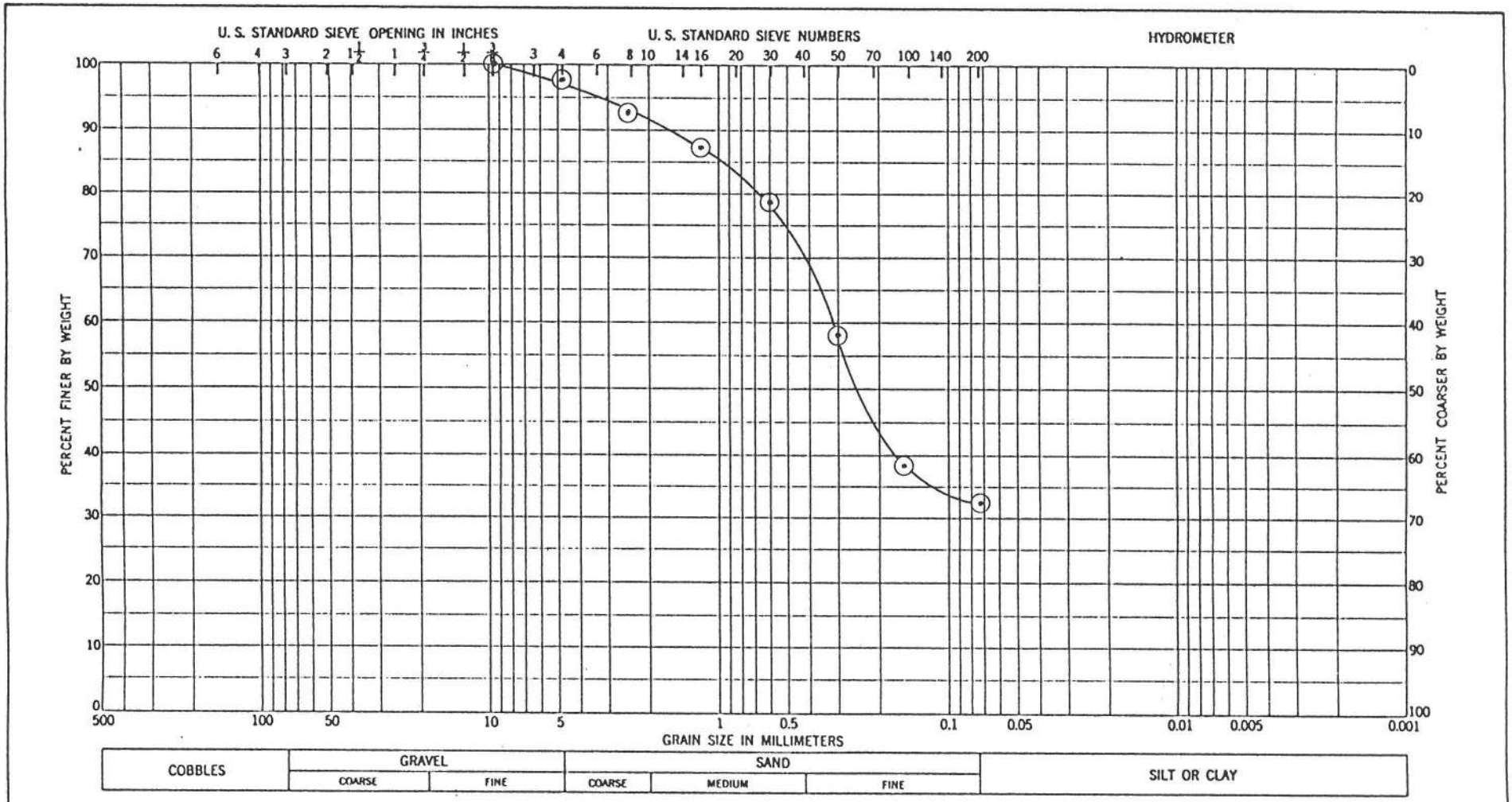


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-1D	48.0'-50.0'	Gray clayey fine sand	20.8				
SS-25B		and silt					
		SC					

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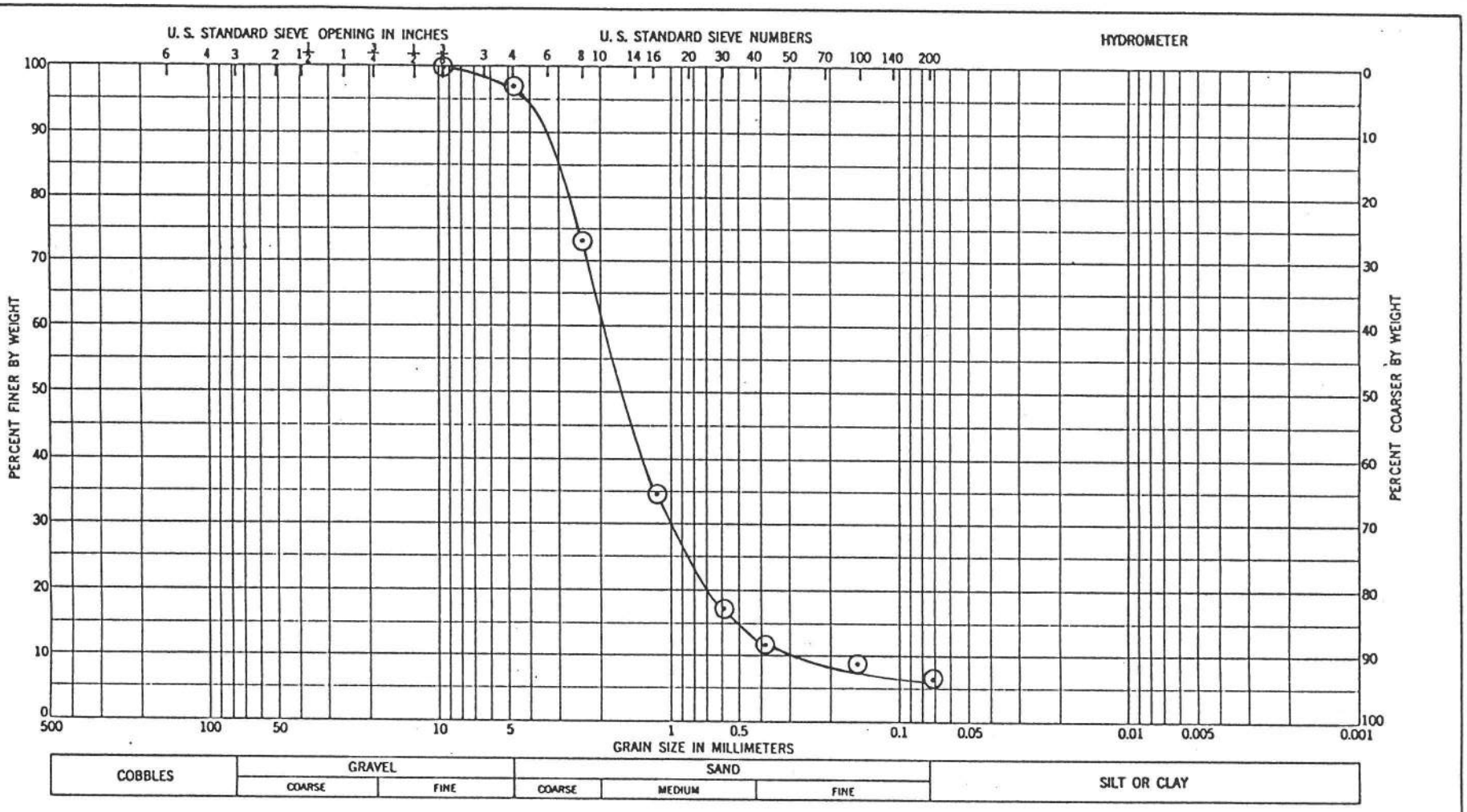


Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Remarks
P-1S	38.0'-40.0'	Gray coarse to fine sand	18.7				
SS-2A		and silt, trace fine					
		gravel					
		SC					

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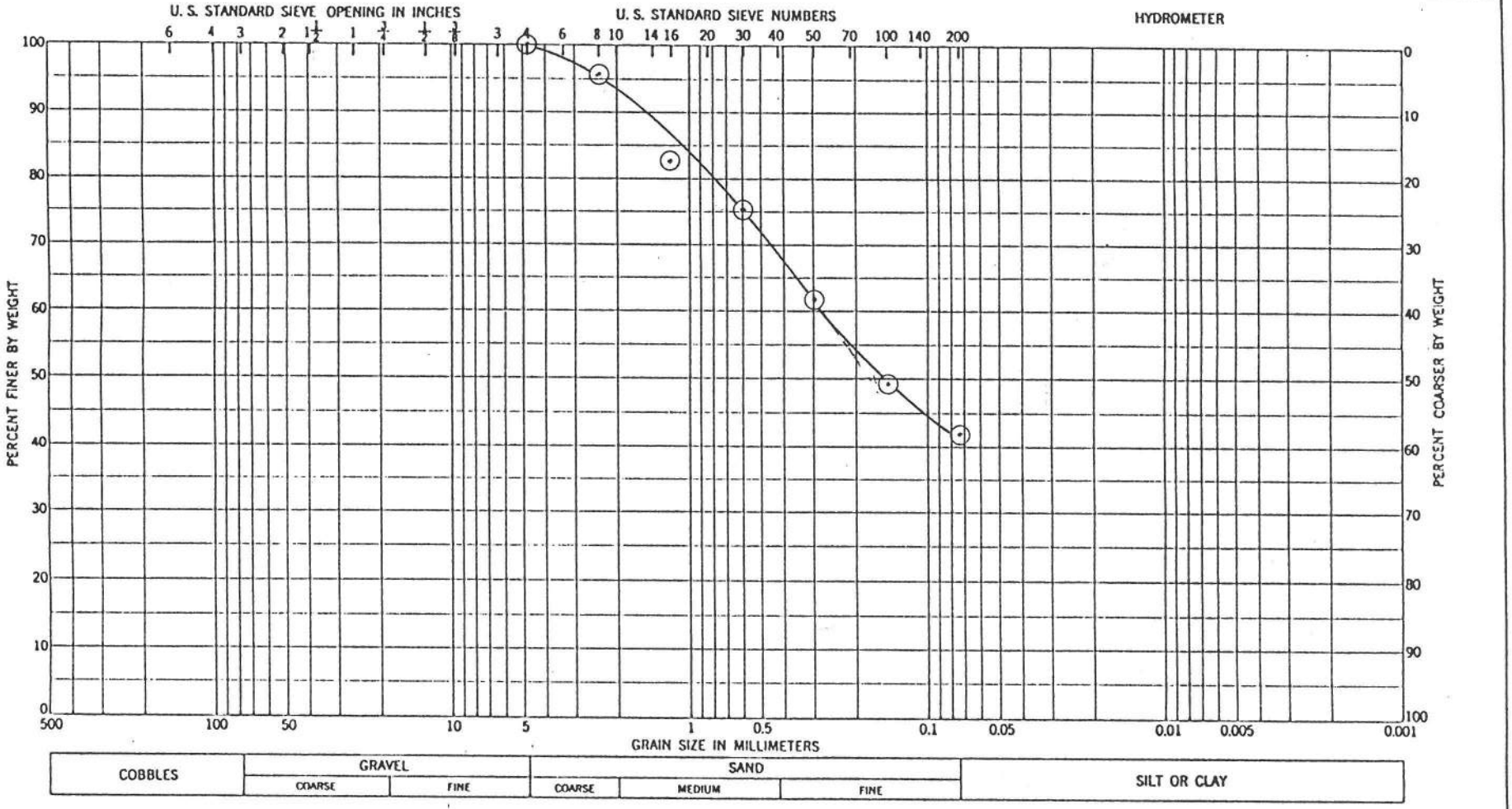


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-2D	54.0'-54.5'	Gray coarse to fine sand,	16.2				
SS-28A		trace fine gravel, trace					
		silt					
		SP-SM					

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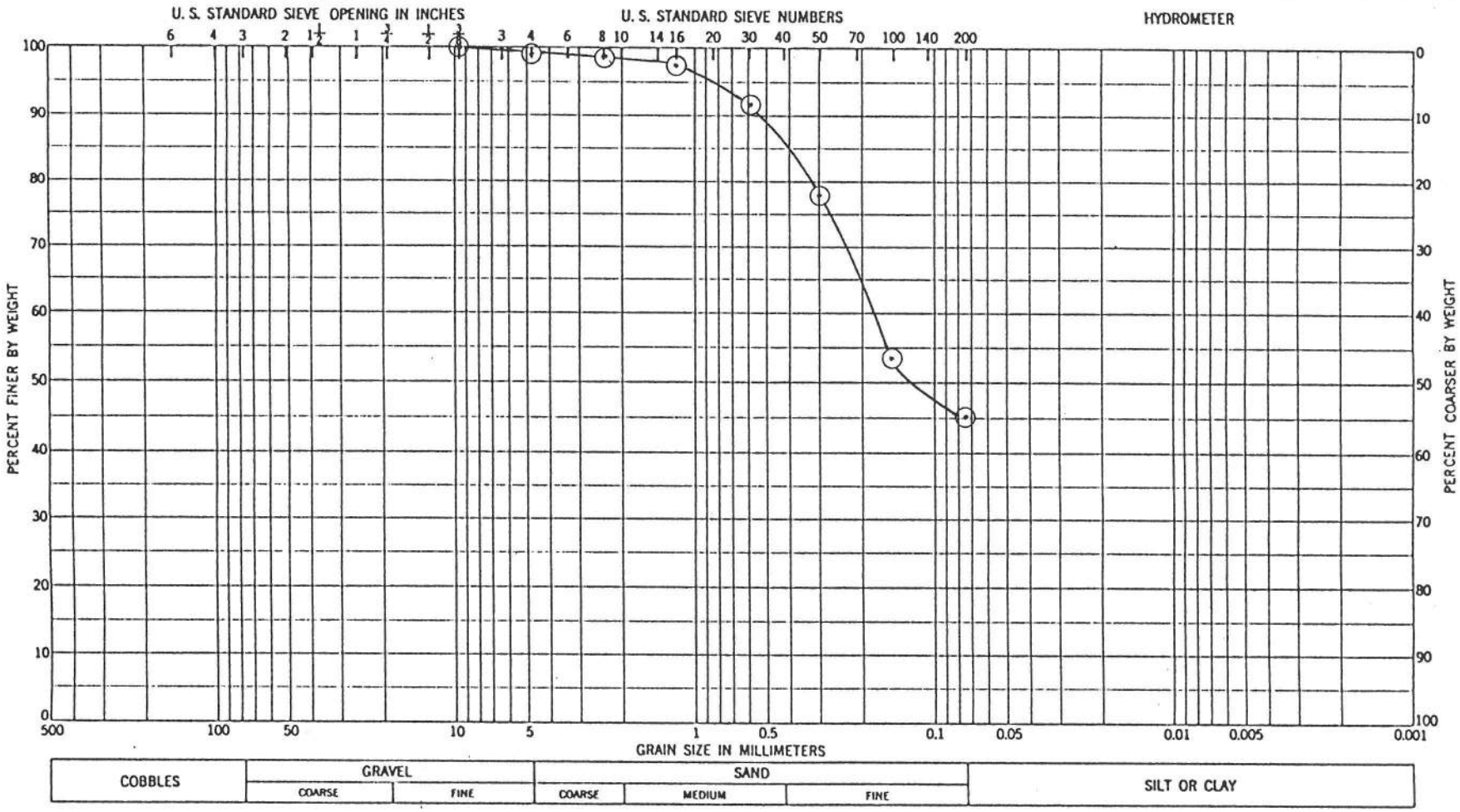


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-3D	32.0-34.0	Gray coarse to fine sand	17.9				
SS-17B		and silt.					
		SM					

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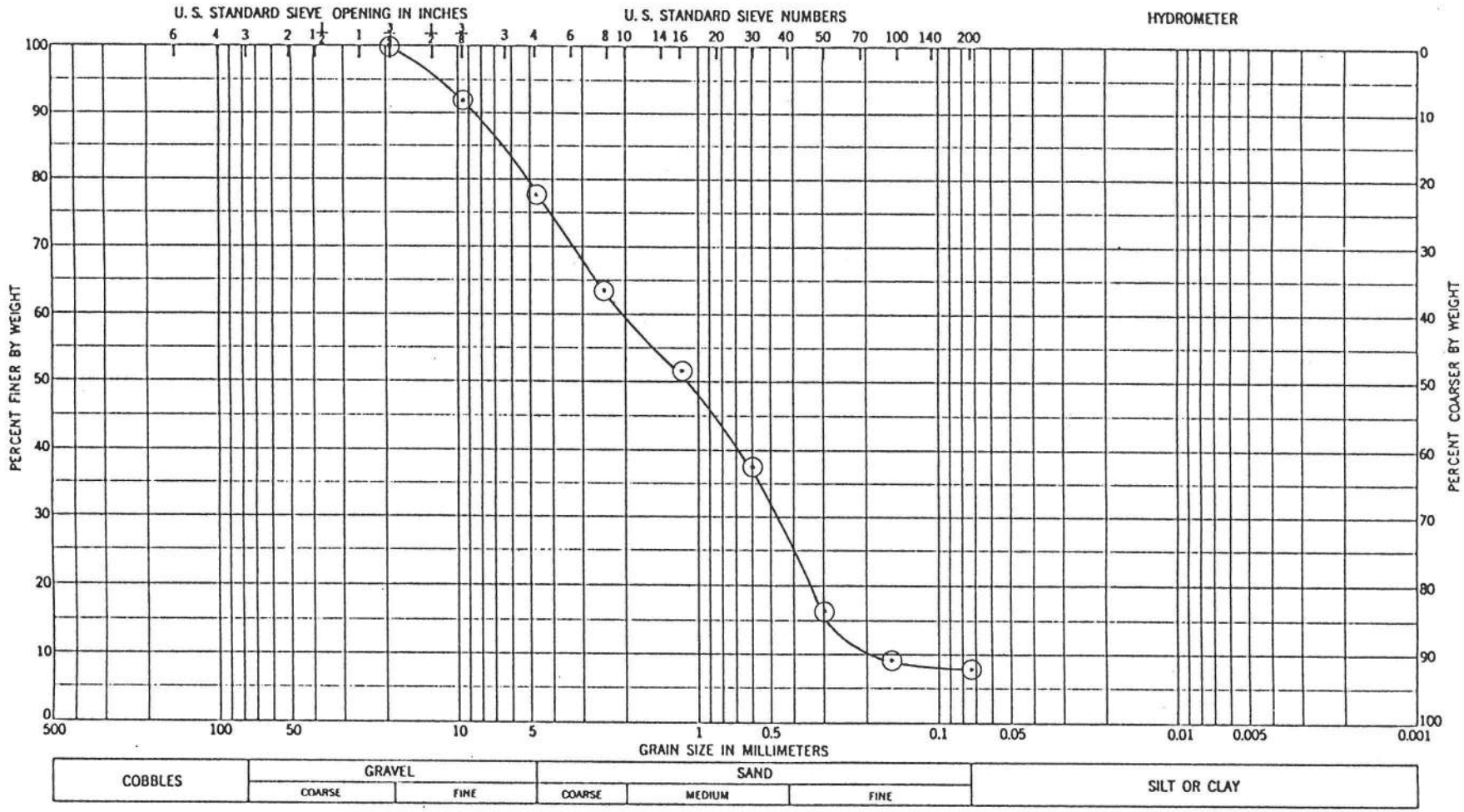


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-3S	10.0'-12.0'	Dark gray medium to fine					
SS-3		sand and silt, trace					
		coarse sand.					
		SM					

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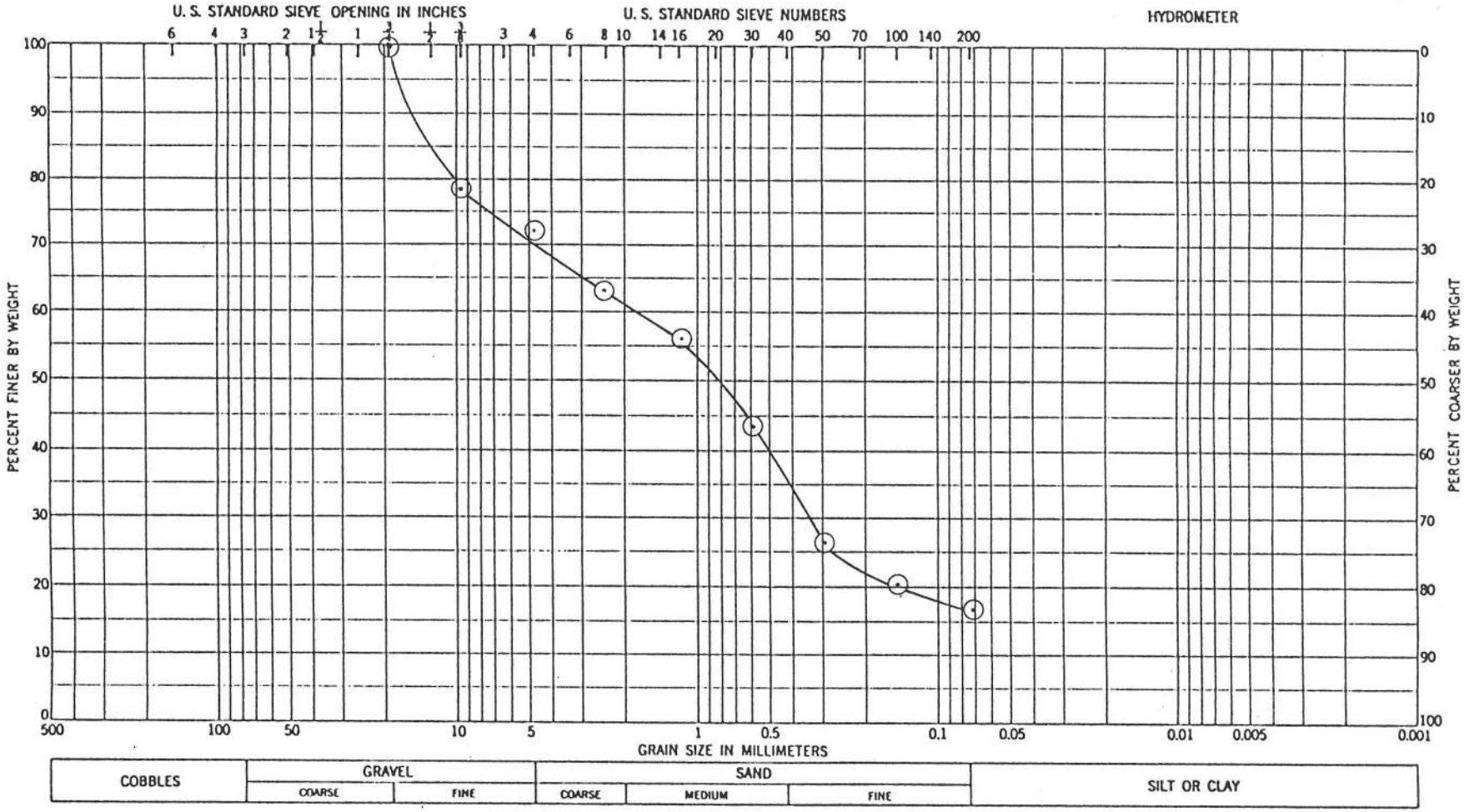


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-4	36.0'-38.0'	Gray coarse to fine					
SS-19		sand, some fine gravel,					
		trace silt					
		SW-SM					

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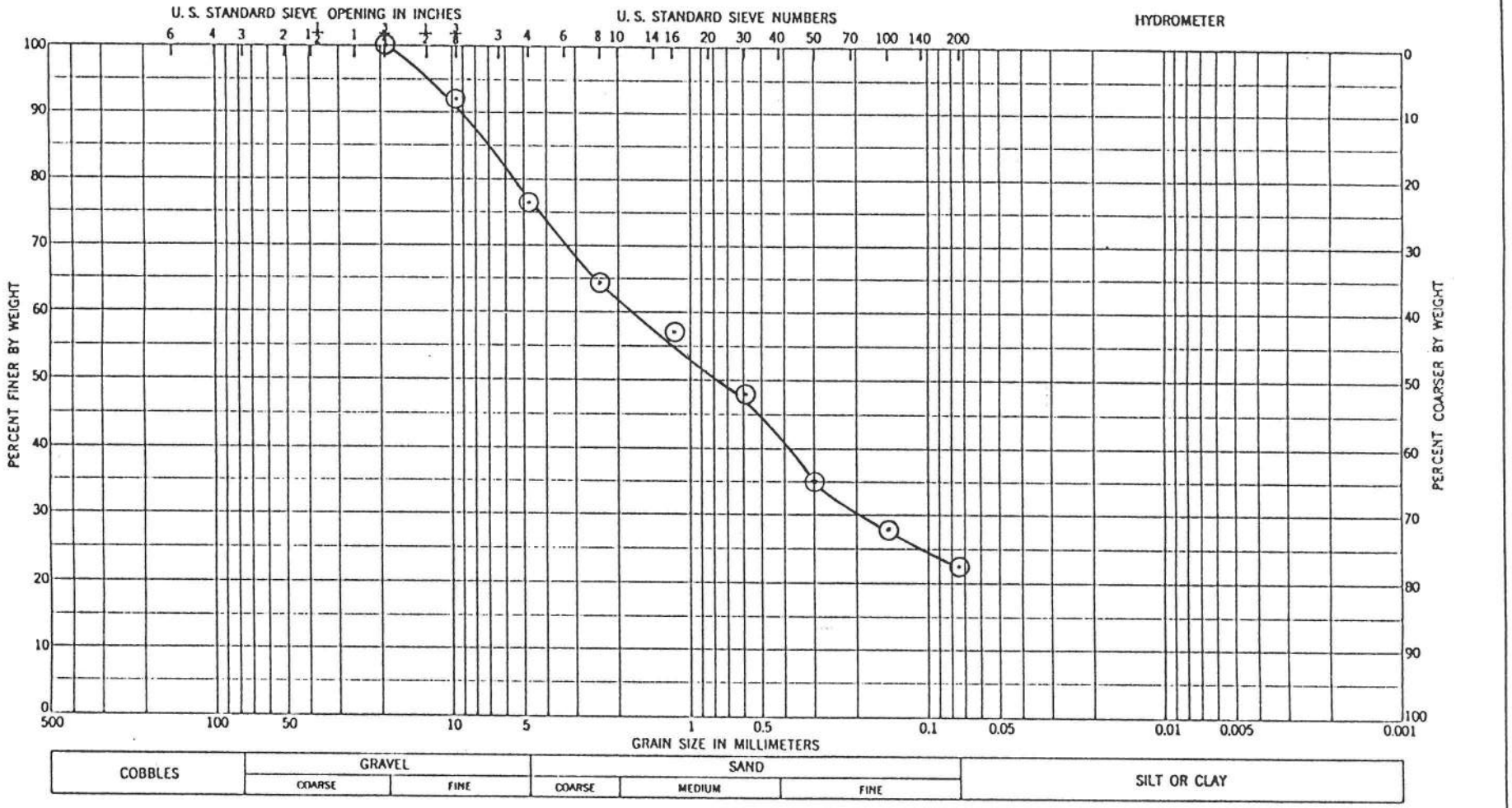


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-5D	26.0'-28.0'	Gray coarse to fine sand					
SS-14A		some fine gravel,					
		little silt.					
		SM					

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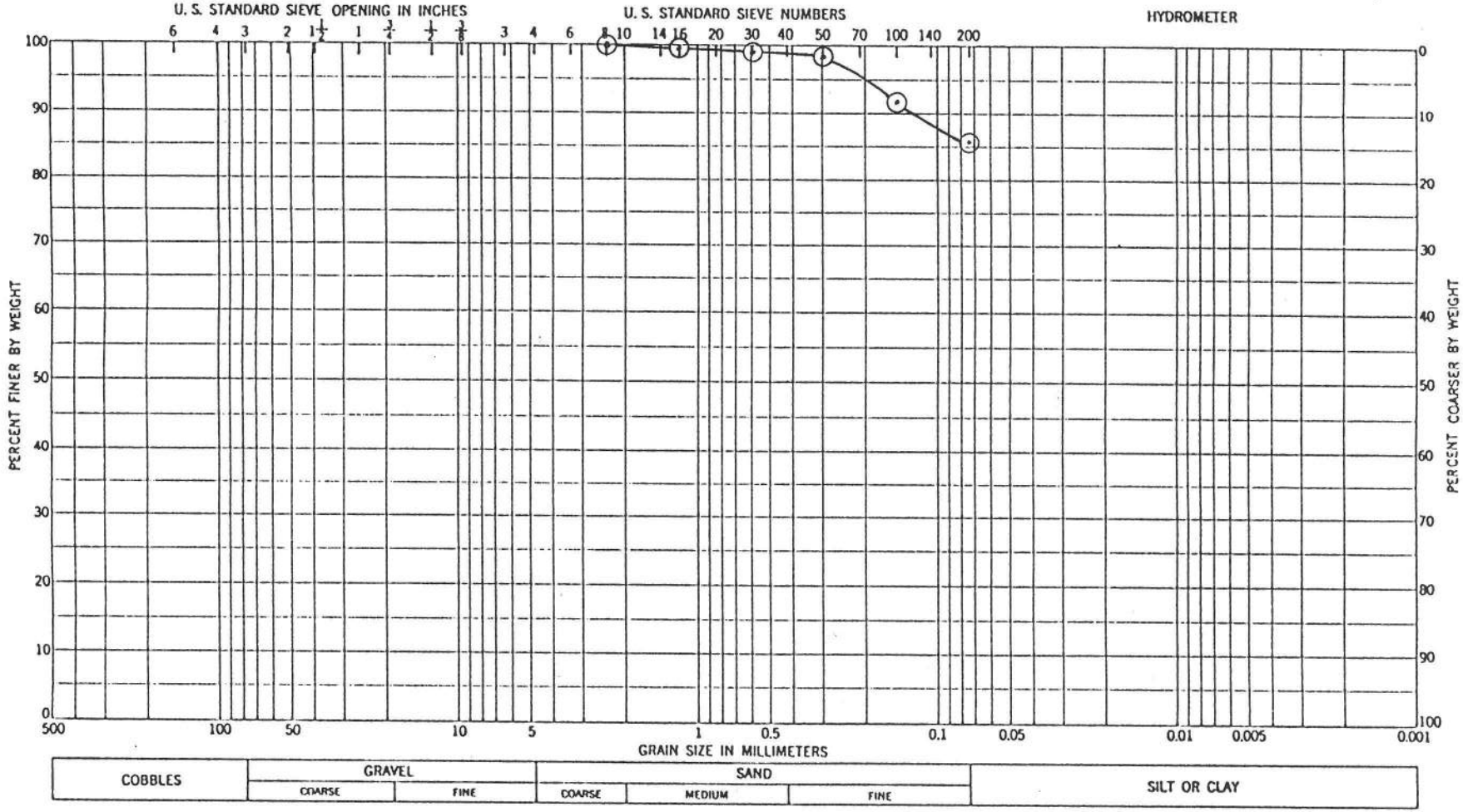


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-6D	28.0'-30.0'	Gray Coarse to fine	14.6				
SS-15		sand, some fine gravel,					
		some silt					
		SM					

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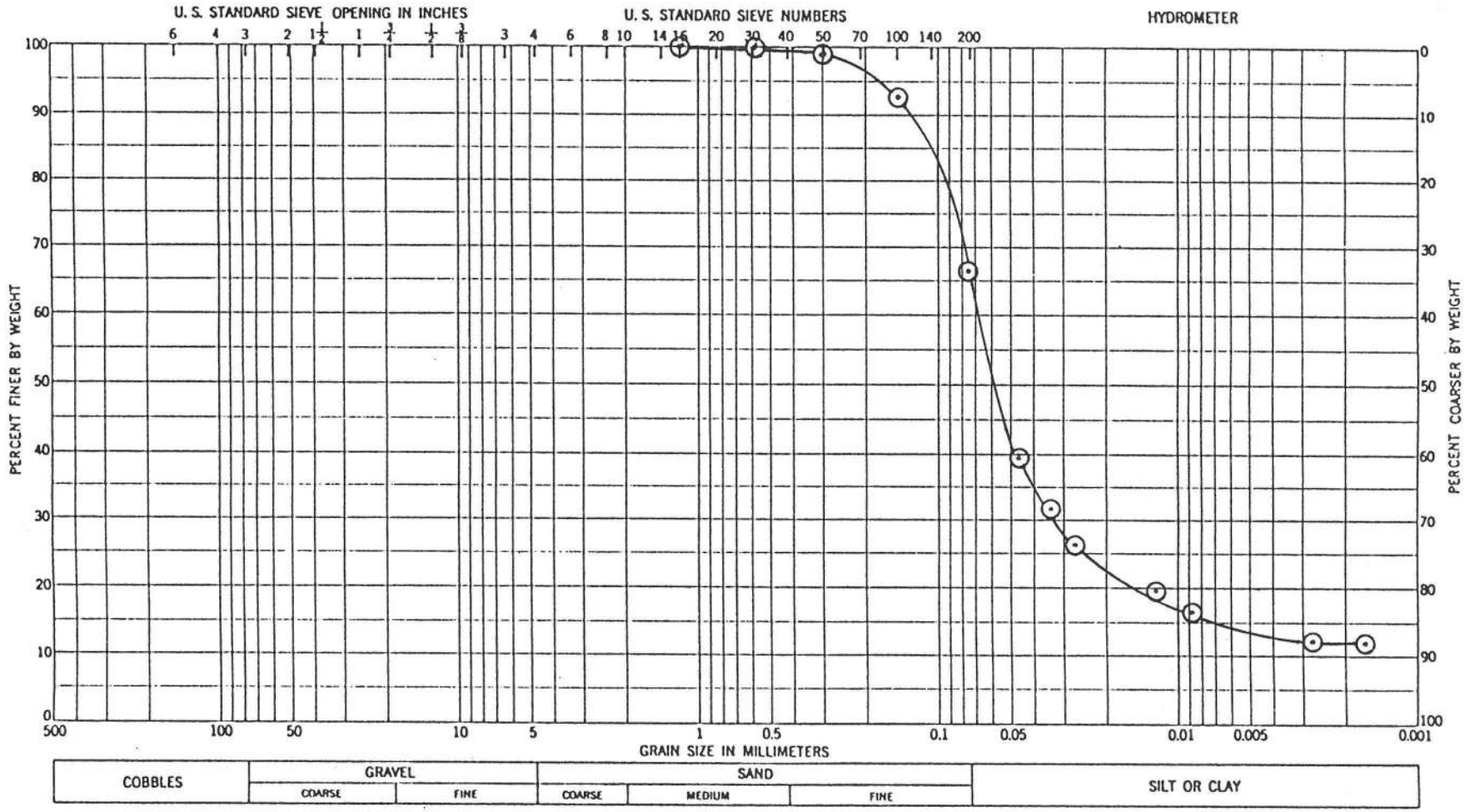


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-6S	6.0'-8.0'	Brown silty clay, little	23.4				
SS-2A		fine sand					
		CL					

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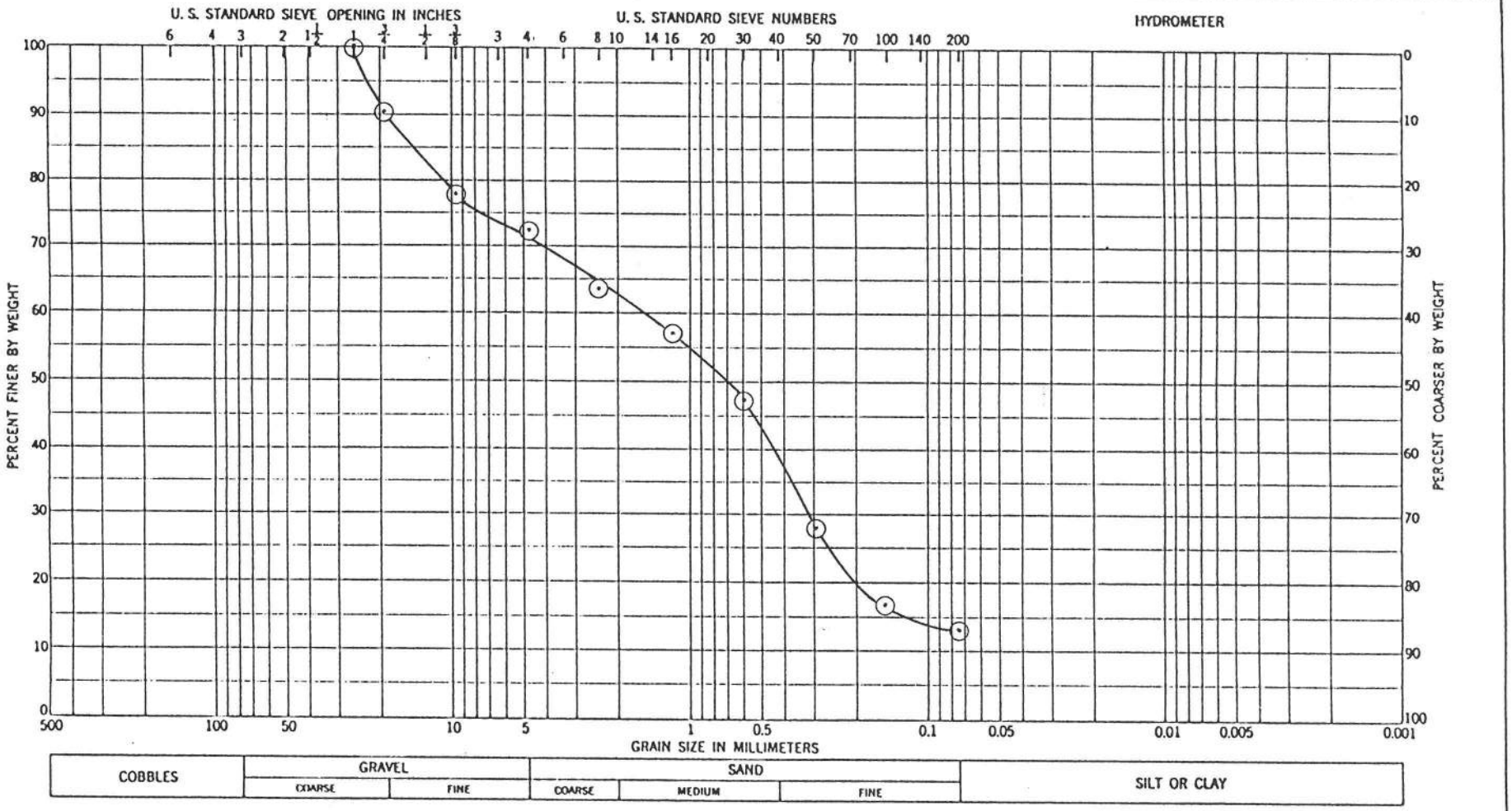


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-7D	24.0'-26.0'	Gray clayey silt and fine	24.3				
SS-13		sand					
		CL-ML					

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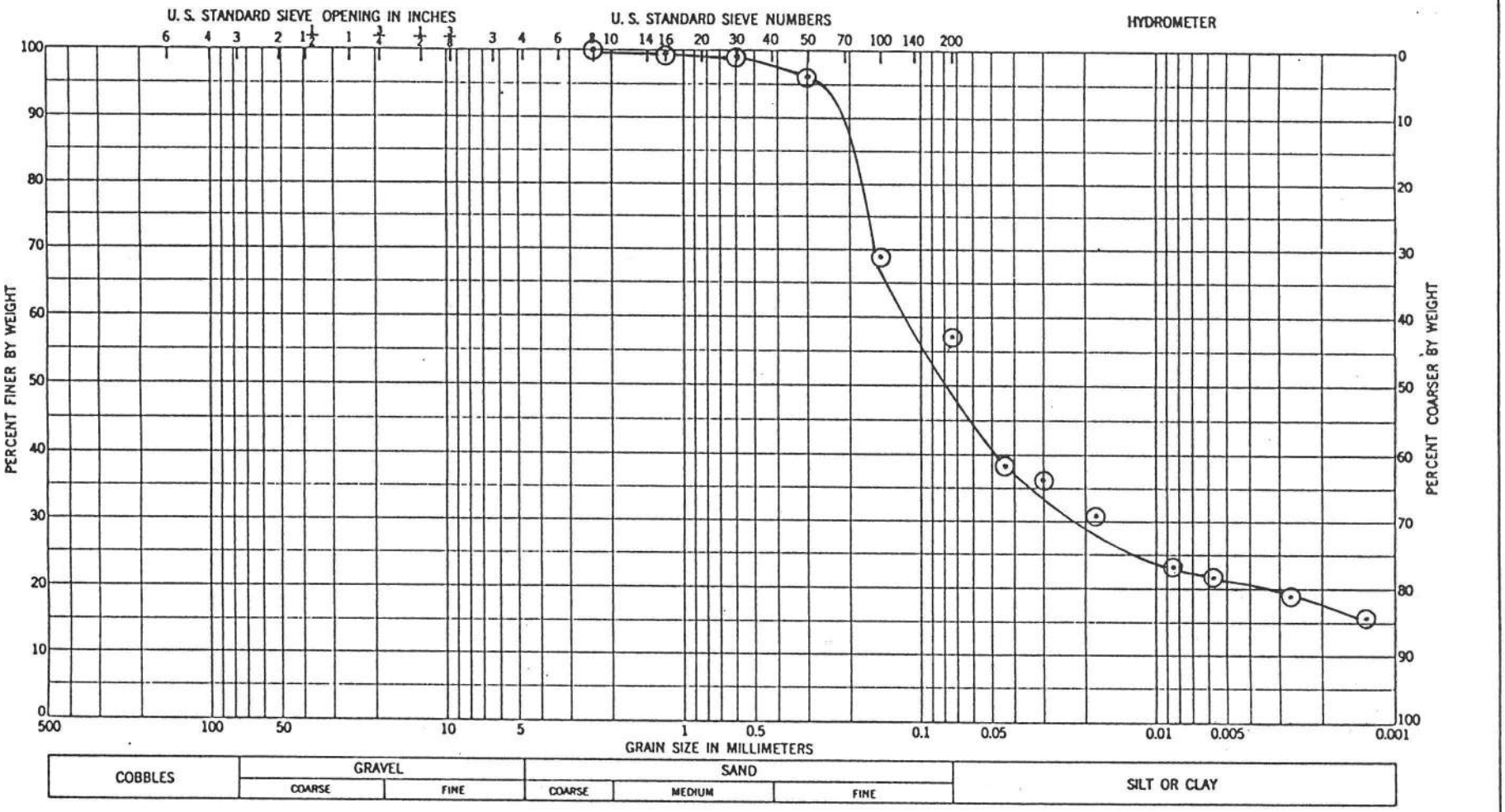


Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Remarks
P-7D	28.0'-30.0'	Gray coarse to fine	10.9				
SS-15		sand, some coarse to					
		fine gravel, little silt.					
		SW-SM					

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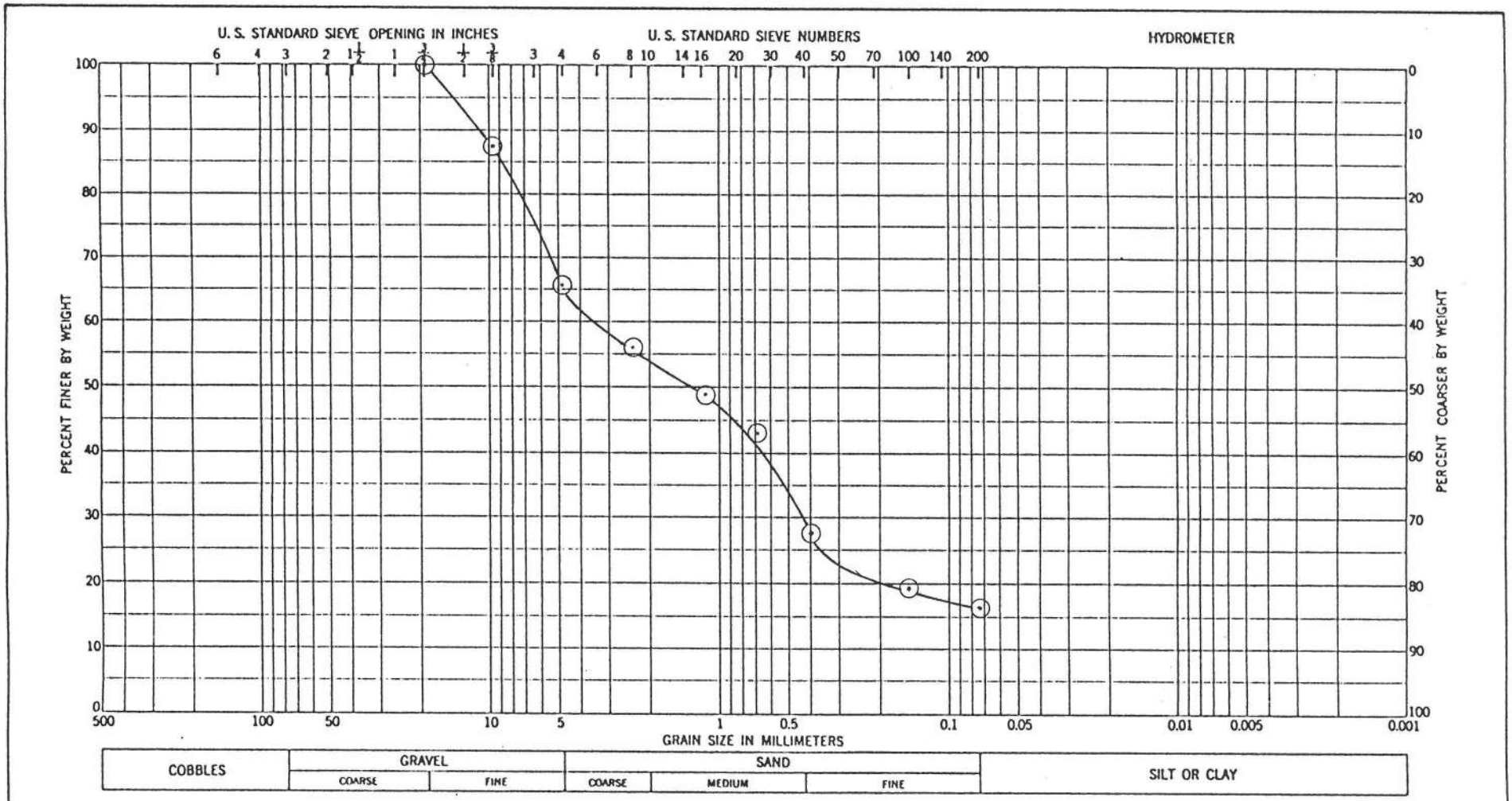


Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Remarks
P-7S	10.5'-11.0'	Gray clayey silt to					
SS-1B		clayey sand					
		SC/ML					

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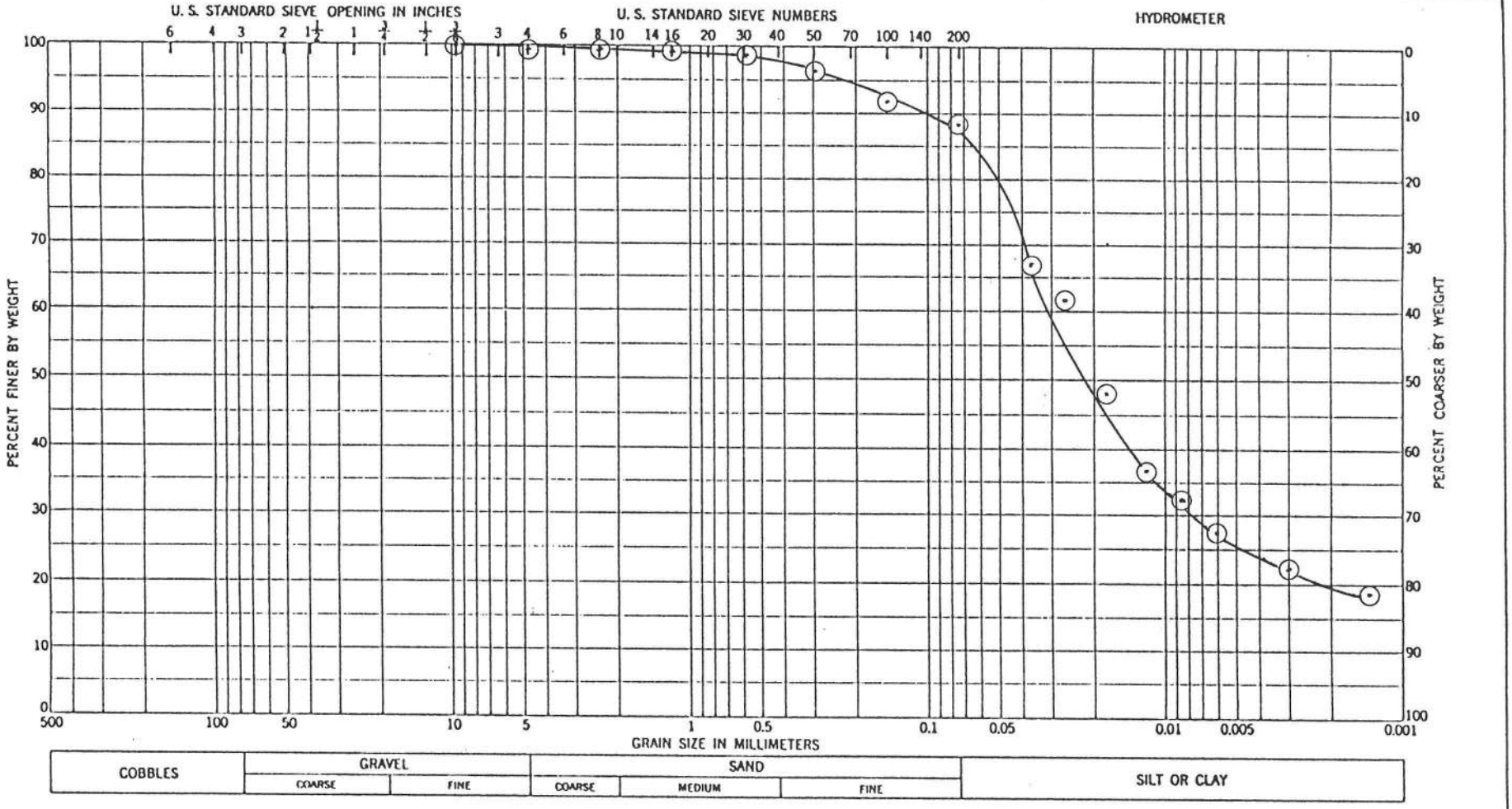


Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Remarks
P-8D SS-13A	24.0'-26.0'	Gray coarse to fine sand and fine gravel, little silt SM					

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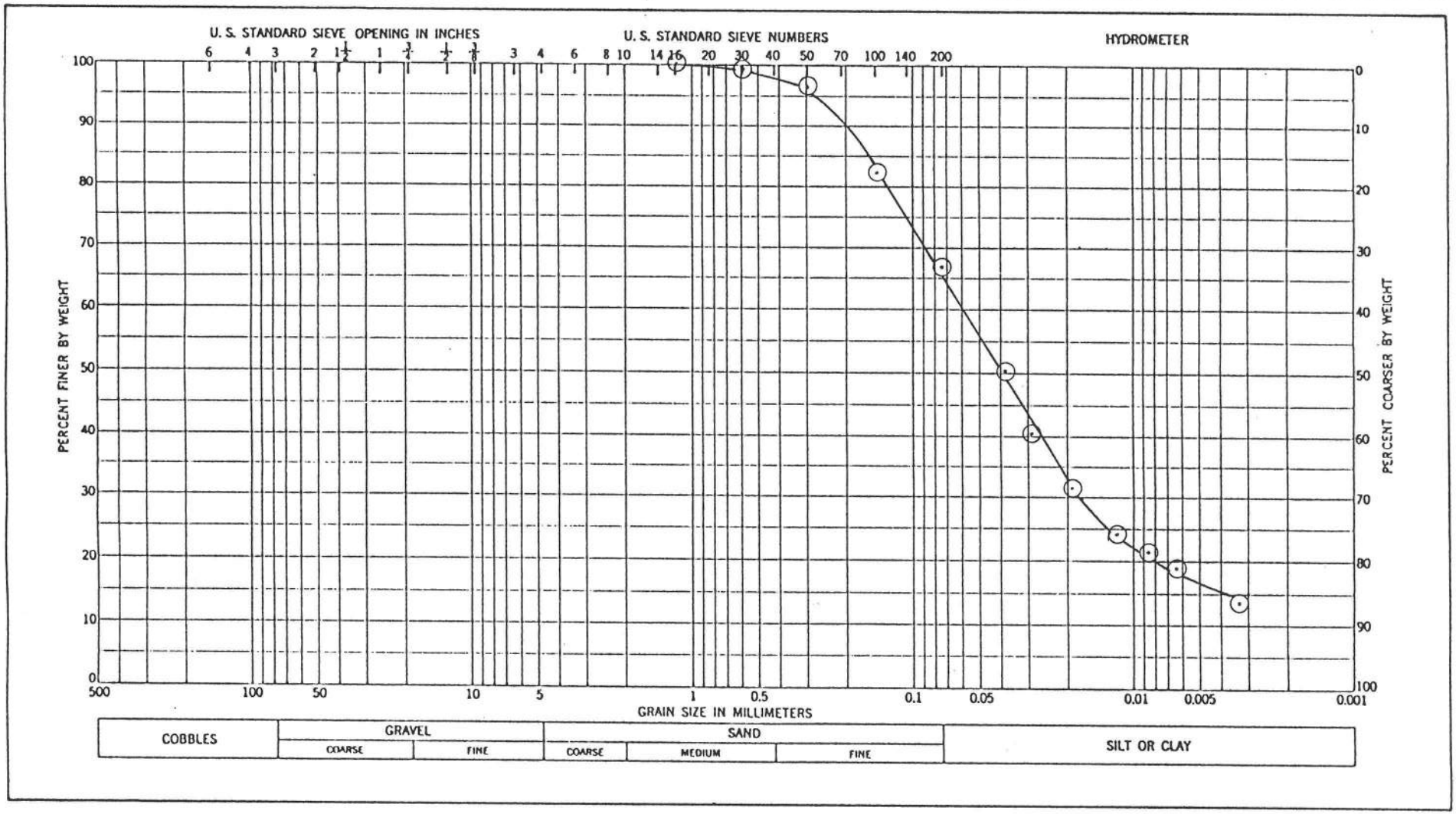


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-8S	10.0'-12.0'	Dark gray to black	41.0				
SS-3		organic silty clay,					
		little coarse to fine					
		sand, wood present					
		OL					

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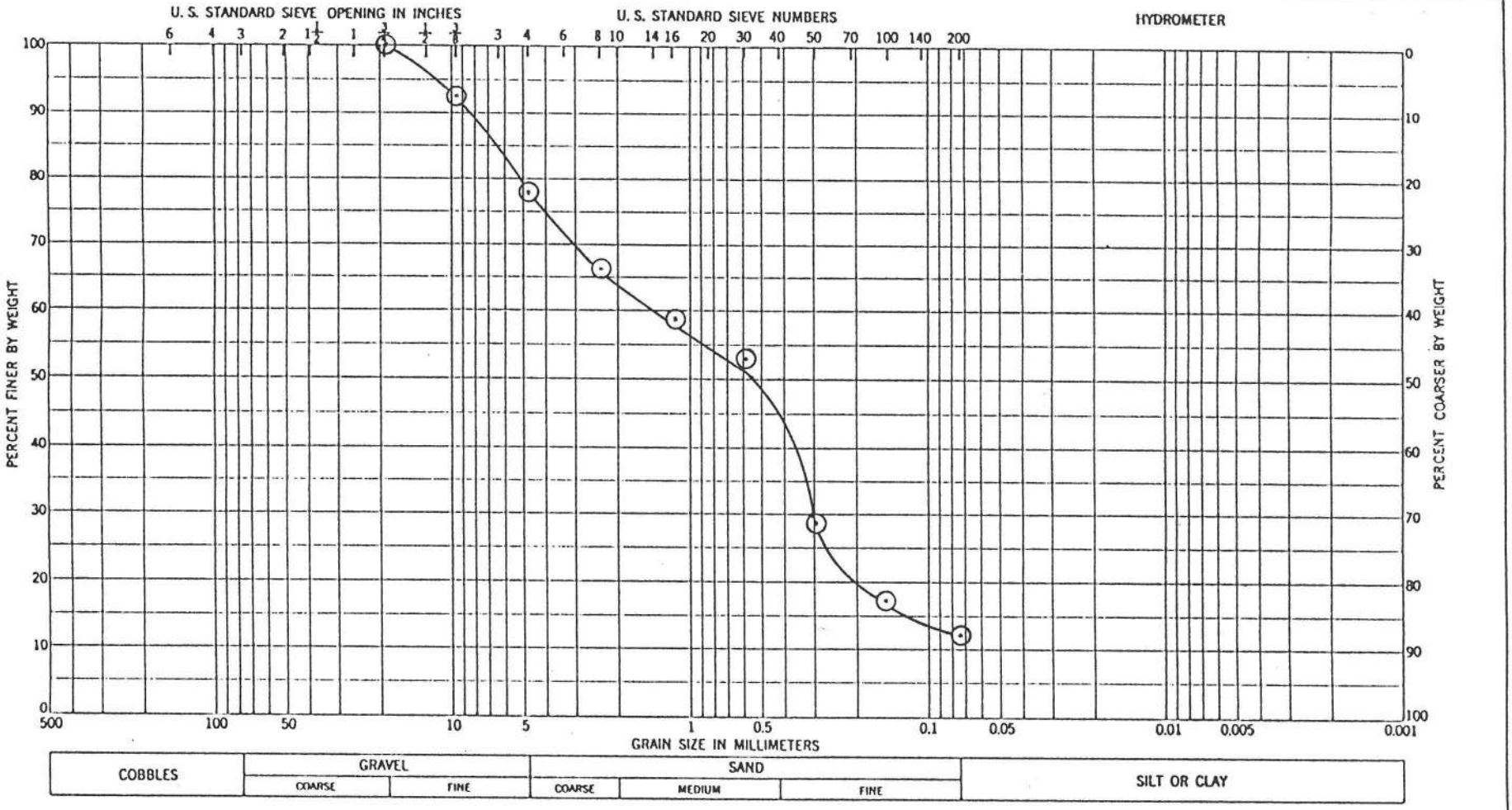


Sample No.	Elev. or Depth	Classification	Nat w%	LL	PL	PI	Remarks
P-9D	50.0'-52.0'	Gray clayey silt and	20.7				
SS-26		medium to fine sand					
		CL-ML					

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PARTICLE SIZE DISTRIBUTION



Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Remarks
P-9D	56.0'-58.0'	Gray coarse to fine sand,					
SS-29A		some fine gravel, little					
		silt					
		SM					

CWLP FGDS Landfill
City of Springfield
PEI Project No. 496B

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PARTICLE SIZE DISTRIBUTION

UNCONFINED COMPRESSIVE STRENGTHS

UNCONFINED COMPRESSION TEST

Job No. 496B Client: City of Springfield (CWLP)

Sample: CB-1 3T-5 8.0'-10.0'

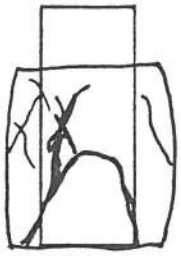
Sample Height: 5.8 in dia.: 2.8 in

Moisture content 29.4%

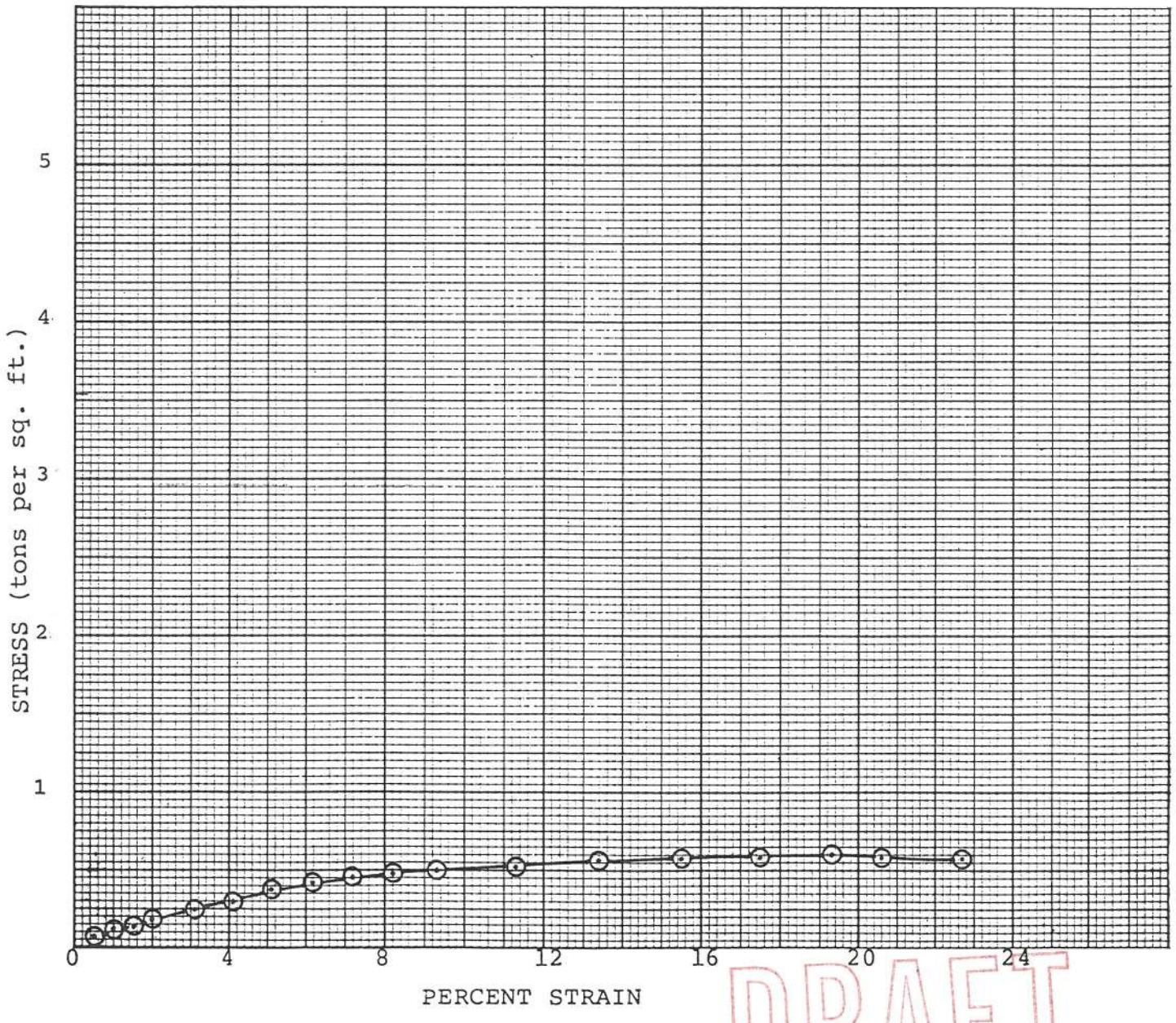
Dry density: 94.4 pcf

Max. compr. stress: 0.6 tsf @ 15.0 % strain

Remarks:



FAILURE SKETCH



DRAFT

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UNCONFINED COMPRESSION TEST

Job No. 496B Client: City of Springfield (CWLP)

Sample: CB-6, 3T-7 12.0'-14.0'

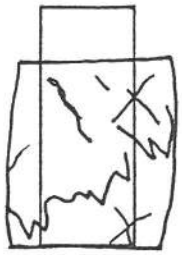
Sample Height: 5.9 in dia.: 2.8 in

Moisture content 26.4%

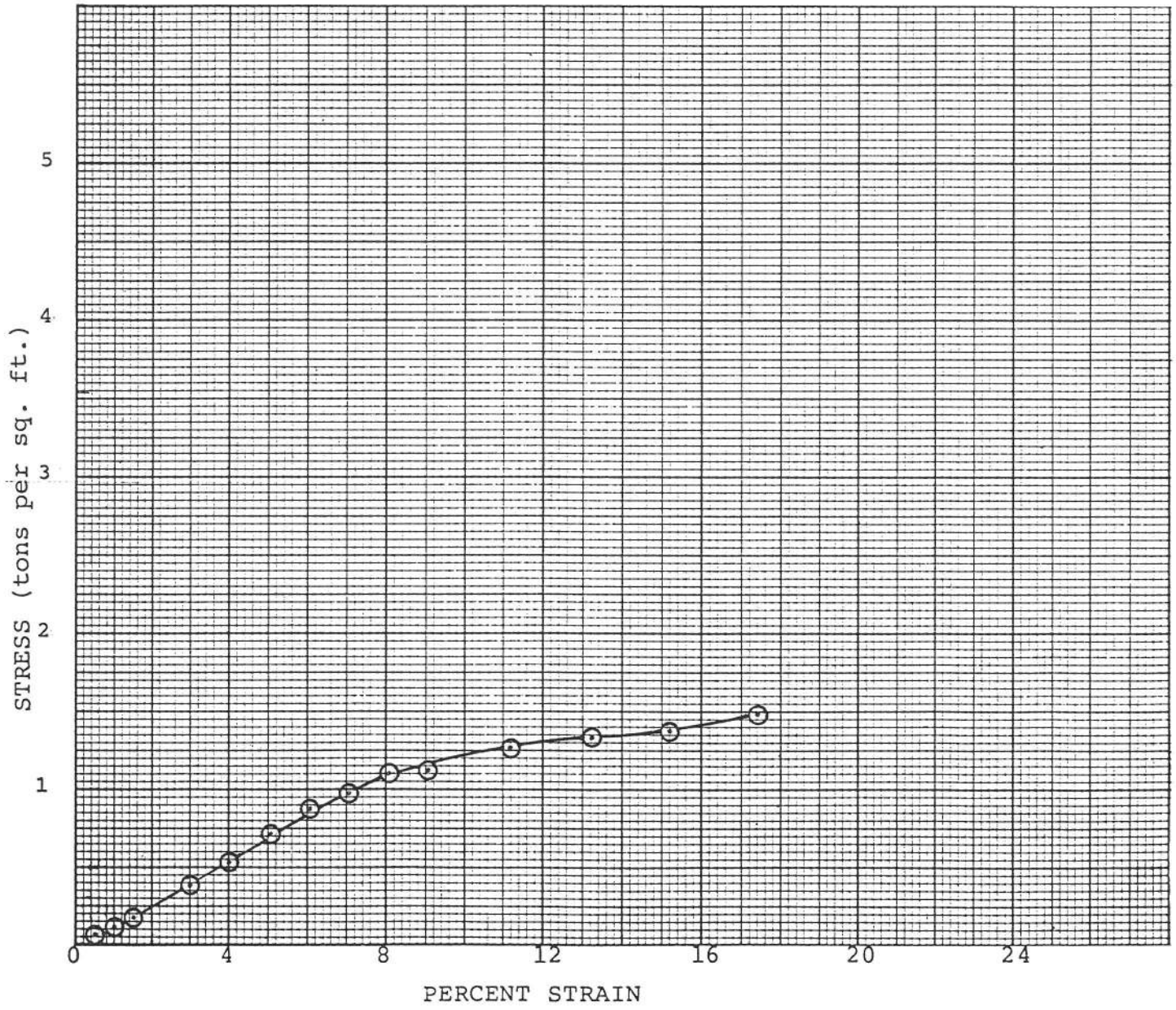
Dry density: 99.0 pcf

Max. compr. stress: 1.4 tsf @ 15.0 % strain

Remarks:



FAILURE SKETCH



PATRICK ENGINEERING INC.

TRIAXIAL HYDRAULIC CONDUCTIVITY TEST RESULTS

Coefficient of Permeability - Calculation Sheet

Tech. - JCV Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	B-3	Tare no.	136	131
Sample No.	3T-20	Tare wt. (g)	21.41	21.1
Description:	GRAY CL-ML	Wt. wet soil & tare (g)	182.00	100.55
		Wt. dry soil & tare (g)	150.26	85.82
		Moisture Content (%)	24.63	22.76
	Diameter (cm)	7.07		
	Height (cm)	15.02		
	Volume (cm3)	589.7		
	Wet Wt. (g)	1226.70		
	Dry Density (pcf)	104.2		
	Specific Gravity	2.70		
	Void Ratio	0.618		
	Saturation (%)	108		

DRAFT
FOR REVIEW

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top: 4.7	Bottom: 3.60	
Volume change (cm3):	15.0		
Consolidated volume (cm3):	574.6		
Dry weight of sample (g):	984.25		
% change each dimension:	0.00849		
Consolidated diameter (cm):	7.01	2.76	in.
Consolidated height (cm):	14.89	5.86	in.
Consolidated area (cm2):	38.6	5.98	in2
Consolidated dry density (pcf):	106.9		
Consolidated void ratio:	0.576		
Consolidated % saturation:	107		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	69.7	69.7			
Top pressure (psi):	58.2	58.2			
Bottom pressure (psi):	61.3	61.2			
Gradient:	15	14	0	0	0
Confining Pressure (psi):	9.95	10	*Error*	*Error*	*Error*
Date initial reading:	10/27/92	10/28/92			
Time initial reading:	4:53 PM	5:07 PM			
Date final reading:	10/28/92	10/29/92			
Time final reading:	8:57 AM	8:41 AM			
Initial man. rdg. (in) Top=	66.05	68.3			
Bottom=	66.1	64			
Final man. rdg. (in) Top=	67.55	69.6			
Bottom=	64.7	62.7			
Δ Top (in.)	1.5	1.3	0	0	0
Δ Bottom (in.)	1.40	1.3	0	0	0
Δ Time (hrs.)	16.07	15.57	0.00	0.00	0.00
Top "K" value (cm/sec) =	8.9E-08	8.2E-08	*Error*	*Error*	*Error*
Bottom "K" value (cm/sec) =	8.3E-08	8.2E-08	*Error*	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 8.2E-08 Conf. Pres. (psi) = 10

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Coefficient of Permeability - Calculation Sheet — Tech. - JCV — Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	B-4	Tare no.	log	201
Sample No.	3T-4	Tare wt. (g)	20.41	21.03
Description:		Wt. wet soil & tare (g)	103.90	154.45
		Wt. dry soil & tare (g)	85.66	126.65
		Moisture Content (%)	27.95	26.32
	Diameter (cm)	7.25		
	Height (cm)	12.92		
	Volume (cm3)	533.4		
	Wet Wt. (g)	1079.07		
	Dry Density (pcf)	98.7		
	Specific Gravity	2.70		
	Void Ratio	0.708		
	Saturation (%)	107		

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top: 0.8	Bottom: 1.10	
Volume change (cm3):	3.4		
Consolidated volume (cm3):	529.9		
Dry weight of sample (g):	843.33		
% change each dimension:	0.00215		
Consolidated diameter (cm):	7.23	2.85	in.
Consolidated height (cm):	12.89	5.08	in.
Consolidated area (cm2):	41.1	6.37	in2
Consolidated dry density (pcf):	99.3		
Consolidated void ratio:	0.697		
Consolidated % saturation:	102		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	60	60.1			
Top pressure (psi):	47.6	47.8			
Bottom pressure (psi):	51.4	51.4			
Gradient:	21	20	0	0	0
Confining Pressure (psi):	10.5	10.5	*Error*	*Error*	*Error*
Date initial reading:	8/28/92	8/28/92			
Time initial reading:	9:04 AM	10:02 PM			
Date final reading:	8/28/92	8/29/92			
Time final reading:	1:44 PM	8:43 PM			
Initial man. rdg. (in) Top=	64.75	66			
Bottom=	71	69.8			
Final man. rdg. (in) Top=	65.25	67.6			
Bottom=	70.5	68.2			
Δ Top (in.)	0.50	1.60	0	0	0
Δ Bottom (in.)	0.50	1.60	0	0	0
Δ Time (hrs.)	4.67	22.68	0.00	0.00	0.00
Top "K" value (cm/sec) =	6.8E-08	4.7E-08	*Error*	*Error*	*Error*
Bottom "K" value (cm/sec) =	6.8E-08	4.7E-08	*Error*	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 4.7E-08 — Conf. Pres. (psi) = 10.5

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet

Tech. - JCV Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	CB-1	Tare no.	log	225
Sample No.	3T-5	Tare wt. (g)	20.56	20.89
Description:	Vry Dk Gr Silty Clay	Wt. wet soil & tare (g)	124.71	118.38
		Wt. dry soil & tare (g)	102.32	97.34
		Moisture Content (%)	27.39	27.52
	Diameter (cm)	7.20		
	Height (cm)	14.17		
	Volume (cm3)	576.9		
	Wet Wt. (g)	1124.63		
	Dry Density (pcf)	95.5		
	Specific Gravity	2.70		
	Void Ratio	0.764		
	Saturation (%)	97		

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top: 6.7	Bottom: 4.30	
Volume change (cm3):	19.9		
Consolidated volume (cm3):	557.0		
Dry weight of sample (g):	882.86		
% change each dimension:	0.01150		
Consolidated diameter (cm):	7.12	2.80	in.
Consolidated height (cm):	14.01	5.51	in.
Consolidated area (cm2):	39.8	6.17	in2
Consolidated dry density (pcf):	98.9		
Consolidated void ratio:	0.704		
Consolidated % saturation:	106		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	59.4	59.4			
Top pressure (psi):	47.4	47.4			
Bottom pressure (psi):	51.7	51.7			
Gradient:	22	22	0	- 0	0
Confining Pressure (psi):	9.85	9.85	*Error*	*Error*	*Error*
Date initial reading:	8/27/92	8/27/92			
Time initial reading:	9:26 AM	1:45 PM			
Date final reading:	8/27/92	8/27/92			
Time final reading:	1:45 PM	8:03 PM			
Initial man. rdg. (in) Top=	62.65	64.2			
Bottom=	68.8	67.9			
Final man. rdg. (in) Top=	64.2	65.7			
Bottom=	67.9	66.7			
Δ Top (in.)	1.55	1.5	0	0	0
Δ Bottom (in.)	0.9	1.2	0	0	0
Δ Time (hrs.)	4.32	6.30	0.00	0.00	0.00
Top "K" value (cm/sec) =	2.2E-07	1.5E-07	*Error*	*Error*	*Error*
Bottom "K" value (cm/sec) =	1.3E-07	1.2E-07	*Error*	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 1.5E-07 Conf. Pres. (psi) = 9.85

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet

Tech. - JCV Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	CB-2	Tare no.	log	266
Sample No.	3T-9	Tare wt. (g)	20.98	20.61
Description:		Wt. wet soil & tare (g)	110.34	86.99
		Wt. dry soil & tare (g)	85.81	69.88
		Moisture Content (%)	37.84	34.73

Diameter (cm)	7.15
Height (cm)	7.11
Volume (cm3)	285.5
Wet Wt. (g)	501.73
Dry Density (pcf)	79.6
Specific Gravity	2.70
Void Ratio	1.118
Saturation (%)	91

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top:	3.4	Bottom:	4.25
Volume change (cm3):		13.8		
Consolidated volume (cm3):		271.6		
Dry weight of sample (g):		364.00		
% change each dimension:		0.01616		
Consolidated diameter (cm):		7.03	2.77	in.
Consolidated height (cm):		7.00	2.75	in.
Consolidated area (cm2):		38.9	6.02	in2
Consolidated dry density (pcf):		83.6		
Consolidated void ratio:		1.015		
Consolidated % saturation:		92		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	50.1	50.1			
Top pressure (psi):	38.8	38.8			
Bottom pressure (psi):	40.6	40.6			
Gradient:	18	18	0	0	0
Confining Pressure (psi):	10.4	10.4	*Error*	*Error*	*Error*
Date initial reading:	8/27/92	8/27/92			
Time initial reading:	9:25 AM	1:40 AM			
Date final reading:	8/27/92	8/27/92			
Time final reading:	1:40 PM	7:46 AM			
Initial man. rdg. (in) Top=	65.4	66.9			
Bottom=	72.85	71.6			
Final man. rdg. (in) Top=	66.9	68.8			
Bottom=	71.6	69.9			
Δ Top (in.)	1.5	1.9	0	0	0
Δ Bottom (in.)	1.25	1.7	0	0	0
Δ Time (hrs.)	4.25	6.10	0.00	0.00	0.00
Top "K" value (cm/sec) =	2.7E-07	2.4E-07	*Error*	*Error*	*Error*
Bottom "K" value (cm/sec) =	2.2E-07	2.1E-07	*Error*	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 2.4E-07 Conf. Pres. (psi) = 10.4

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet

Tech. - JCV Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	CB-4	Tare no.	log	228
Sample No.	3T-9	Tare wt. (g)	20.60	20.84
Description:	Dk Gr Silt	Wt. wet soil & tare (g)	111.80	75.91
		Wt. dry soil & tare (g)	94.24	65.37
		Moisture Content (%)	23.85	23.67

Diameter (cm)	7.20
Height (cm)	14.75
Volume (cm3)	600.5
Wet Wt. (g)	1231.78
Dry Density (pcf)	103.3
Specific Gravity	2.70
Void Ratio	0.630
Saturation (%)	102

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top: 6.2	Bottom: 5.10	
Volume change (cm3):	20.4		
Consolidated volume (cm3):	580.1		
Dry weight of sample (g):	994.61		
% change each dimension:	0.01135		
Consolidated diameter (cm):	7.12	2.80	in.
Consolidated height (cm):	14.58	5.74	in.
Consolidated area (cm2):	39.8	6.17	in2
Consolidated dry density (pcf):	107.0		
Consolidated void ratio:	0.575		
Consolidated % saturation:	111		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	40.1	40.1	40.1		
Top pressure (psi):	28.2	28.4	28.2		
Bottom pressure (psi):	31.6	31.4	31.6		
Gradient:	16	14	16	0	0
Confining Pressure (psi):	10.2	10.2	10.2	*Error*	*Error*
Date initial reading:	8/26/92	8/26/92	8/26/92		
Time initial reading:	7:52 AM	9:58 PM	11:19 AM		
Date final reading:	8/26/92	8/27/92	8/26/92		
Time final reading:	9:58 PM	8:36 AM	9:58 PM		
Initial man. rdg. (in) Top=	59.2	66.9	61.35		
Bottom=	70.05	63	68.3		
Final man. rdg. (in) Top=	66.9	71.75	66.9		
Bottom=	63	58.15	63		
Δ Top (in.)	7.7	4.85	5.55	0	0
Δ Bottom (in.)	7.05	4.85	5.3	0	0
Δ Time (hrs.)	14.10	10.63	10.65	0.00	0.00
Top "K" value (cm/sec) =	4.5E-07	4.3E-07	4.3E-07	*Error*	*Error*
Bottom "K" value (cm/sec) =	4.1E-07	4.3E-07	4.1E-07	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 4.3E-07 Conf. Pres. (psi) = 10.2

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet

Tech. - JCV Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	CB-6	Tare no.	log	200
Sample No.	3T-7	Tare wt. (g)	20.94	20.45
Description:	Gr. Silty Clay	Wt. wet soil & tare (g)	124.57	149.79
		Wt. dry soil & tare (g)	100.75	121.98
		Moisture Content (%)	29.85	27.39

Diameter (cm)	7.10
Height (cm)	9.09
Volume (cm3)	359.9
Wet Wt. (g)	713.69
Dry Density (pcf)	95.3
Specific Gravity	2.70
Void Ratio	0.768
Saturation (%)	105

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top: 4.7	Bottom: 2.65	
Volume change (cm3):	13.3		
Consolidated volume (cm3):	346.6		
Dry weight of sample (g):	549.64		
% change each dimension:	0.01232		
Consolidated diameter (cm):	7.01	2.76	in.
Consolidated height (cm):	8.98	3.53	in.
Consolidated area (cm2):	38.6	5.99	in2
Consolidated dry density (pcf):	99.0		
Consolidated void ratio:	0.703		
Consolidated % saturation:	105		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	50.2	50.4	50.2		
Top pressure (psi):	38.5	38.9	38.5		
Bottom pressure (psi):	41.3	41.4	41.3		
Gradient:	22	20	22	0	0
Confining Pressure (psi):	10.3	10.25	10.3	*Error*	*Error*
Date initial reading:	8/28/92	8/28/92	8/28/92		
Time initial reading:	1:43 PM	3:33 PM	1:43 PM		
Date final reading:	8/28/92	8/28/92	8/28/92		
Time final reading:	3:33 PM	10:01 PM	10:01 PM		
Initial man. rdg. (in) Top=	62	63.9	62		
Bottom=	67.3	66	67.3		
Final man. rdg. (in) Top=	63.9	68.7	68.7		
Bottom=	66	61.55	61.55		
Δ Top (in.)	1.9	4.8	6.7	0	0
Δ Bottom (in.)	1.3	4.45	5.75	0	0
Δ Time (hrs.)	1.83	6.47	8.30	0.00	0.00
Top "K" value (cm/sec) =	6.6E-07	5.3E-07	5.1E-07	*Error*	*Error*
Bottom "K" value (cm/sec) =	4.5E-07	4.9E-07	4.4E-07	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 5.3E-07 Conf. Pres. (psi) = 10.25

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet

Tech. - JCV | Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	P-2D	Tare no.	105	248
Sample No.	3T-15	Tare wt. (g)	21.99	20.32
Description:	Brown CL-ML	Wt. wet soil & tare (g)	153.04	116.65
		Wt. dry soil & tare (g)	126.07	97.23
		Moisture Content (%)	25.91	25.25
	Diameter (cm)	7.24		
	Height (cm)	15.28		
	Volume (cm3)	629.1		
	Wet Wt. (g)	1257.45		
	Dry Density (pcf)	99.1		
	Specific Gravity	2.70		
	Void Ratio	0.701		
	Saturation (%)	100		

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top:	4.00	Bottom:	2.00
Volume change (cm3):		10.9		
Consolidated volume (cm3):		618.2		
Dry weight of sample (g):		998.67		
% change each dimension:		0.00575		
Consolidated diameter (cm):		7.20	2.83	in.
Consolidated height (cm):		15.19	5.98	in.
Consolidated area (cm2):		40.7	6.31	in2
Consolidated dry density (pcf):		100.8		
Consolidated void ratio:		0.671		
Consolidated % saturation:		102		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	59.7	59.7			
Top pressure (psi):	48	47.3			
Bottom pressure (psi):	51.7	51.1			
Gradient:	17	18	0	0	0
Confining Pressure (psi):	9.85	10.5	*Error*	*Error*	*Error*
Date initial reading:	8/3/92	8/3/92			
Time initial reading:	8:49 AM	2:39 PM			
Date final reading:	8/3/92	8/3/92			
Time final reading:	2:16 PM	4:27 PM			
Initial man. rdg. (in) Top=	63.5	68.7			
Bottom=	68	63.05			
Final man. rdg. (in) Top=	68.7	70.4			
Bottom=	63.1	61.45			
Δ Top (in.)	5.2	1.7	0	0	0
Δ Bottom (in.)	4.9	1.6	0	0	0
Δ Time (hrs.)	5.45	1.80	0.00	0.00	0.00
Top "K" value (cm/sec) =	7.4E-07	7.1E-07	*Error*	*Error*	*Error*
Bottom "K" value (cm/sec) =	6.9E-07	6.7E-07	*Error*	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 7.3E-07* Conf. Pres. (psi) = 10.2

*percentage of "k" values for trials 1 and 2 added for weighted composite value for 7.25 hours.

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet

Tech. - JCV Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	P-3D	Tare no.	213	213
Sample No.	3T-9	Tare wt. (g)	20.63	20.63
Description:	Olive gray CL w/ silt	Wt. wet soil & tare (g)	98.59	111.47
		Wt. dry soil & tare (g)	78.58	89.49
		Moisture Content (%)	34.53	31.92
	Diameter (cm)	7.20		
	Height (cm)	14.78		
	Volume (cm3)	601.8		
	Wet Wt. (g)	1157.82		
	Dry Density (pcf)	89.2		
	Specific Gravity	2.70		
	Void Ratio	0.888		
	Saturation (%)	105		

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top: 2.1		Bottom: 2.25	
Volume change (cm3):		7.9		
Consolidated volume (cm3):		593.9		
Dry weight of sample (g):		860.64		
% change each dimension:		0.00436		
Consolidated diameter (cm):		7.17	2.82	in.
Consolidated height (cm):		14.72	5.79	in.
Consolidated area (cm2):		40.4	6.26	in2
Consolidated dry density (pcf):		90.4		
Consolidated void ratio:		0.863		
Consolidated % saturation:		100		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	69.3	69.3			
Top pressure (psi):	57.8	57.8			
Bottom pressure (psi):	61.2	61.2			
Gradient:	16	16	0	0	0
Confining Pressure (psi):	9.8	9.8	*Error*	*Error*	*Error*
Date initial reading:	11/3/92	11/2/92			
Time initial reading:	4:25 PM	5:07 PM			
Date final reading:	11/4/92	11/3/92			
Time final reading:	8:25 AM	8:26 AM			
Initial man. rdg. (in) Top=	65.05	64.7			
Bottom=	63.75	64.1			
Final man. rdg. (in) Top=	65.3	65			
Bottom=	63.5	63.9			
Δ Top (in.)	0.25	0.30	0.00	0.00	0.00
Δ Bottom (in.)	0.25	0.20	0.00	0.00	0.00
Δ Time (hrs.)	16.00	15.32	0.00	0.00	0.00
Top "K" value (cm/sec) =	1.3E-08	1.6E-08	*Error*	*Error*	*Error*
Bottom "K" value (cm/sec) =	1.3E-08	1.1E-08	*Error*	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 1.3E-08 Conf. Pres. (psi) = 9.8

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet

Tech. - JCV Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	P-4	Tare no.	LOG	114
Sample No.	3T-11	Tare wt. (g)		21.27
Description:	GRAY CH	Wt. wet soil & tare (g)		91.69
		Wt. dry soil & tare (g)		68.22
		Moisture Content (%)	40.88	49.99
	Diameter (cm)	7.26		
	Height (cm)	14.13		
	Volume (cm3)	584.9		
	Wet Wt. (g)	1032.84		
	Dry Density (pcf)	78.2		
	Specific Gravity	2.70		
	Void Ratio	1.154		
	Saturation (%)	96		

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top: 3.1		Bottom: 2.95	
Volume change (cm3):		10.9		
Consolidated volume (cm3):		574.0		
Dry weight of sample (g):		733.13		
% change each dimension:		0.00624		
Consolidated diameter (cm):		7.21	2.84	in.
Consolidated height (cm):		14.04	5.53	in.
Consolidated area (cm2):		40.9	6.34	in2
Consolidated dry density (pcf):		79.7		
Consolidated void ratio:		1.114		
Consolidated % saturation:		121		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	130.9	130.5	130.9		
Top pressure (psi):	119.1	119.1	119.4		
Bottom pressure (psi):	122.6	122.5	122.7		
Gradient:	18	17	17	0	0
Confining Pressure (psi):	10.05	9.7	9.85	*Error*	*Error*
Date initial reading:	11/4/92	11/4/92	11/5/92		
Time initial reading:	8:42 AM	5:18 PM	8:55 AM		
Date final reading:	11/4/92	11/5/92	11/5/92		
Time final reading:	5:18 PM	8:55 AM	5:16 PM		
Initial man. rdg. (in) Top=	60.8	61.1	61.3		
Bottom=	61.4	61.05	60.6		
Final man. rdg. (in) Top=	61.1	61.3	61.5		
Bottom=	61.05	60.6	60.3		
Δ Top (in.)	0.30	0.20	0.20	0.00	0.00
Δ Bottom (in.)	0.35	0.45	0.30	0.00	0.00
Δ Time (hrs.)	8.60	15.62	8.35	0.00	0.00
Top "K" value (cm/sec) =	2.6E-08	9.9E-09	1.9E-08	*Error*	*Error*
Bottom "K" value (cm/sec) =	3.1E-08	2.2E-08	2.9E-08	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 2.9E-08 Conf. Pres. (psi) = 9.85

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet | Tech. - JCV | Check -

Job No.	496B		Initial WC%	Final W%
Boring Number:	P-5S	Tare no.	LOG	254
Sample No.	3T-2	Tare wt. (g)		20.75
Description:	VERY DK. GRAY CL	Wt. wet soil & tare (g)		96.87
		Wt. dry soil & tare (g)		81.8
		Moisture Content (%)	26.30	24.68
	Diameter (cm)	7.10		
	Height (cm)	12.81		
	Volume (cm3)	507.2		
	Wet Wt. (g)	982.85		
	Dry Density (pcf)	95.7		
	Specific Gravity	2.70		
	Void Ratio	0.760		
	Saturation (%)	93		

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top:	1.9	Bottom:	-1.05
Volume change (cm3):		1.5		
Consolidated volume (cm3):		505.6		
Dry weight of sample (g):		778.19		
% change each dimension:		0.00101		
Consolidated diameter (cm):		7.09	2.79	in.
Consolidated height (cm):		12.80	5.04	in.
Consolidated area (cm2):		39.5	6.12	in2
Consolidated dry density (pcf):		96.0		
Consolidated void ratio:		0.754		
Consolidated % saturation:		88		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	89.9	90			
Top pressure (psi):	78.6	78.9			
Bottom pressure (psi):	81.6	81.5			
Gradient:	16	14	0	0	0
Confining Pressure (psi):	9.8	9.8	*Error*	*Error*	*Error*
Date initial reading:	11/4/92	11/4/92			
Time initial reading:	8:42 AM	5:17 PM			
Date final reading:	11/4/92	11/5/92			
Time final reading:	5:17 PM	8:56 AM			
Initial man. rdg. (in) Top=	64.25	65			
Bottom=	68.8	68			
Final man. rdg. (in) Top=	65	66.15			
Bottom=	68	66.75			
Δ Top (in.)	0.75	1.15	0.00	0.00	0.00
Δ Bottom (in.)	0.80	1.25	0.00	0.00	0.00
Δ Time (hrs.)	8.58	15.65	0.00	0.00	0.00
Top "K" value (cm/sec) =	7.2E-08	7.0E-08	*Error*	*Error*	*Error*
Bottom "K" value (cm/sec) =	7.7E-08	7.6E-08	*Error*	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 7.6E-08 Conf. Pres. (psi) = 9.8

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet

Tech. - JCV Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	P7D	Tare no.	log	203
Sample No.	3T-5	Tare wt. (g)	20.46	20.6
Description:		Wt. wet soil & tare (g)	116.29	136.53
		Wt. dry soil & tare (g)	98.60	115.96
		Moisture Content (%)	22.64	21.57
	Diameter (cm)	7.23		
	Height (cm)	14.13		
	Volume (cm3)	580.1		
	Wet Wt. (g)	1153.85		
	Dry Density (pcf)	101.2		
	Specific Gravity	2.70		
	Void Ratio	0.665		
	Saturation (%)	92		

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top: 3.5		Bottom: 3.25	
Volume change (cm3):		12.2		
Consolidated volume (cm3):		567.9		
Dry weight of sample (g):		940.85		
% change each dimension:		0.00702		
Consolidated diameter (cm):		7.18	2.83	in.
Consolidated height (cm):		14.03	5.52	in.
Consolidated area (cm2):		40.5	6.27	in2
Consolidated dry density (pcf):		103.4		
Consolidated void ratio:		0.630		
Consolidated % saturation:		92		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	79.6	79.6			
Top pressure (psi):	68	68			
Bottom pressure (psi):	71.7	71.7			
Gradient:	19	19	0	0	0
Confining Pressure (psi):	9.75	9.75	*Error*	*Error*	*Error*
Date initial reading:	8/31/92	8/31/92			
Time initial reading:	9:16 AM	9:16 AM			
Date final reading:	8/31/92	8/31/92			
Time final reading:	12:14 PM	5:00 PM			
Initial man. rdg. (in) Top=	66.5	66.5			
Bottom=	69.4	69.4			
Final man. rdg. (in) Top=	67.35	68.7			
Bottom=	68.55	67.2			
Δ Top (in.)	0.85	2.2	0	0	0
Δ Bottom (in.)	0.85	2.2	0	0	0
Δ Time (hrs.)	2.97	7.73	0.00	0.00	0.00
Top "K" value (cm/sec) =	2.1E-07	2.0E-07	*Error*	*Error*	*Error*
Bottom "K" value (cm/sec) =	2.1E-07	2.0E-07	*Error*	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 2.0E-07 Conf. Pres. (psi) = 9.75

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet

Tech. - JCV Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	P-7M	Tare no.	log	265
Sample No.	3T-2	Tare wt. (g)	20.65	20.65
Description:		Wt. wet soil & tare (g)	126.92	182.16
		Wt. dry soil & tare (g)	107.43	154.42
		Moisture Content (%)	22.46	20.74

Diameter (cm)	7.35
Height (cm)	14.04
Volume (cm3)	595.7
Wet Wt. (g)	1185.50
Dry Density (pcf)	101.4
Specific Gravity	2.70
Void Ratio	0.661
Saturation (%)	92

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top: 6.6	Bottom: 3.15	
Volume change (cm3):	17.6		
Consolidated volume (cm3):	578.1		
Dry weight of sample (g):	968.08		
% change each dimension:	0.00987		
Consolidated diameter (cm):	7.28	2.87	in.
Consolidated height (cm):	13.90	5.47	in.
Consolidated area (cm2):	41.6	6.45	in2
Consolidated dry density (pcf):	104.5		
Consolidated void ratio:	0.612		
Consolidated % saturation:	91		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	49.9	49.9			
Top pressure (psi):	38.4	38.4			
Bottom pressure (psi):	41.7	41.7			
Gradient:	17	17	0	0	0
Confining Pressure (psi):	9.85	9.85	*Error*	*Error*	*Error*
Date initial reading:	8/31/92	8/31/92			
Time initial reading:	12:13 PM	9:14 AM			
Date final reading:	8/31/92	8/31/92			
Time final reading:	4:54 PM	4:54 PM			
Initial man. rdg. (in) Top=	63.5	62.8			
Bottom=	69.35	69.8			
Final man. rdg. (in) Top=	64.3	64.3			
Bottom=	68.6	68.6			
Δ Top (in.)	0.80	1.50	0	0	0
Δ Bottom (in.)	0.75	1.20	0	0	0
Δ Time (hrs.)	4.68	7.67	0.00	0.00	0.00
Top "K" value (cm/sec) =	1.3E-07	1.5E-07	*Error*	*Error*	*Error*
Bottom "K" value (cm/sec) =	1.2E-07	1.2E-07	*Error*	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 1.5E-07 Conf. Pres. (psi) = 9.85

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet — Tech. - JCV — Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	P-9D	Tare no.	140	227
Sample No.	3T-8	Tare wt. (g)	21.39	20.86
Description:	VERY DK. GR. CL	Wt. wet soil & tare (g)	157.72	67.52
		Wt. dry soil & tare (g)	132.45	58.86
		Moisture Content (%)	22.75	22.79

Diameter (cm)	7.11
Height (cm)	14.93
Volume (cm3)	592.8
Wet Wt. (g)	1192.37
Dry Density (pcf)	102.3
Specific Gravity	2.70
Void Ratio	0.648
Saturation (%)	95

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top:	9.9	Bottom:	3.35
Volume change (cm3):		24.0		
Consolidated volume (cm3):		568.8		
Dry weight of sample (g):		971.35		
% change each dimension:		0.01348		
Consolidated diameter (cm):		7.01	2.76	in.
Consolidated height (cm):		14.73	5.80	in.
Consolidated area (cm2):		38.6	5.99	in2
Consolidated dry density (pcf):		106.6		
Consolidated void ratio:		0.581		
Consolidated % saturation:		106		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	110	110	110.3		
Top pressure (psi):	98.3	98.3	98.6		
Bottom pressure (psi):	101.6	101.6	101.8		
Gradient:	16	16	15	0	0
Confining Pressure (psi):	10.05	10.05	10.1	*Error*	*Error*
Date initial reading:	11/1/92	10/30/92	11/3/92		
Time initial reading:	12:28 PM	5:04 PM	4:27 PM		
Date final reading:	11/2/92	11/1/92	11/4/92		
Time final reading:	8:25 AM	12:28 PM	8:28 AM		
Initial man. rdg. (in) Top=	66.45	63.4	68.75		
Bottom=	64.35	65.85	62.7		
Final man. rdg. (in) Top=	67.2	66.45	69.4		
Bottom=	63.7	64.35	62.45		
Δ Top (in.)	0.75	3.05	0.65	0	0
Δ Bottom (in.)	0.65	1.5	0.25	0	0
Δ Time (hrs.)	19.95	43.40	16.02	0.00	0.00
Top "K" value (cm/sec) =	3.3E-08	6.2E-08	3.7E-08	*Error*	*Error*
Bottom "K" value (cm/sec) =	2.9E-08	3.1E-08	1.4E-08	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 3.3E-08 — Conf. Pres. (psi) = 10.05

PATRICK ENGINEERING, INC.

Coefficient of Permeability - Calculation Sheet

Tech. - JCV Check -

			Initial WC%	Final W%
Job No.	496B			
Boring Number:	P-9S	Tare no.	112	114
Sample No.	3T-1	Tare wt. (g)	21.81	21.24
Description:	Gray CL/CL-ML	Wt. wet soil & tare (g)	162.51	147.21
		Wt. dry soil & tare (g)	135.17	122.17
		Moisture Content (%)	24.12	24.81

Diameter (cm)	7.17
Height (cm)	14.31
Volume (cm3)	577.8
Wet Wt. (g)	1163.11
Dry Density (pcf)	101.2
Specific Gravity	2.70
Void Ratio	0.665
Saturation (%)	98

Dimensional Change During Consolidation (assuming isotropic consolidation)

Manometer change (in)=	Top: -1	Bottom: 5.70	
Volume change (cm3):	8.5		
Consolidated volume (cm3):	569.3		
Dry weight of sample (g):	937.10		
% change each dimension:	0.00491		
Consolidated diameter (cm):	7.13	2.81	in.
Consolidated height (cm):	14.24	5.61	in.
Consolidated area (cm2):	40.0	6.20	in2
Consolidated dry density (pcf):	102.7		
Consolidated void ratio:	0.640		
Consolidated % saturation:	105		

	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL4	TRIAL 5
Cell pressure (psi):	69.7	69.6			
Top pressure (psi):	58.3	58.8			
Bottom pressure (psi):	62.1	61.8			
Gradient:	19	15	0	0	0
Confining Pressure (psi):	9.5	9.3	*Error*	*Error*	*Error*
Date initial reading:	10/27/92	10/28/92			
Time initial reading:	12:14 PM	8:58 AM			
Date final reading:	10/27/92	10/28/92			
Time final reading:	4:51 PM	5:06 PM			
Initial man. rdg. (in) Top=	59.4	59.6			
Bottom=	71.6	71.4			
Final man. rdg. (in) Top=	67.6	71.3			
Bottom=	63.5	59.7			
Δ Top (in.)	8.2	11.7	0	0	0
Δ Bottom (in.)	8.1	11.7	0	0	0
Δ Time (hrs.)	4.62	8.13	0.00	0.00	0.00
Top "K" value (cm/sec) =	1.3E-06	1.3E-06	*Error*	*Error*	*Error*
Bottom "K" value (cm/sec) =	1.3E-06	1.3E-06	*Error*	*Error*	*Error*

PERMEABILITY VALUE (CM/SEC.) = 1.3E-06 Conf. Pres. (psi) = 9.3

NOTE: Root passing 3/4 of length from top.

PATRICK ENGINEERING, INC.

CATION EXCHANGE CAPACITY TEST RESULTS

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett , IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Krishna Redby
PATRICK ENGINEERING, INC.
346 Taft Ave.
Glen Ellyn, IL 60137

11/13/1992

NET Job Number: 92.50181

Enclosed are the Analytical Results for the following samples submitted to NET, Inc. Bartlett Division for analysis:

Project Description: 496B; Springfield

Sample Number	Sample Description	Date Taken	Date Received
186568	P-7D; SS-4; Soil		11/03/1992
186569	B-9; SS-8; Soil		11/03/1992
186570	CB-9; SS-5; Soil		11/03/1992

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

Approved By:
Darla J. Kalicki

Darla J. Kalicki
Project Manager

OCEAN GROUP

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett , IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Jim Davis
PATRICK ENGINEERING, INC.
346 Taft Ave.
Glen Ellyn, IL 60137

11/13/1992

Sample No. : 186568

NET Job No.: 92.50181

Sample Description: P-7D; SS-4; Soil
496B; Springfield

Date Taken:
Time Taken:
IEPA Cert. No. 100221

Date Received: 11/03/1992
Time Received: 11:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Analytical Method
Solids, Total	97.3	%	11/05/1992	2540 (4)
Cation Exchange Capacity	16.5	meq/100g	11/12/1992	9080 (1)
CEC - Calcium	179.	mg/100g	11/13/1992	9080 (1)
CEC - Magnesium	71.	mg/100g	11/12/1992	9080 (1)
CEC - Sodium	2.6	mg/100g	11/12/1992	9080 (1)
CEC - Potassium	6.5	mg/100g	11/12/1992	9080 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett , IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Jim Davis
PATRICK ENGINEERING, INC.
346 Taft Ave.
Glen Ellyn, IL 60137

11/13/1992

Sample No. : 186569

NET Job No.: 92.50181

Sample Description: B-9; SS-8; Soil
496B; Springfield

Date Taken:
Time Taken:
IEPA Cert. No. 100221

Date Received: 11/03/1992
Time Received: 11:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Analytical Method
Solids, Total	98.3	%	11/05/1992	2540 (4)
Cation Exchange Capacity	10.7	meq/100g	11/12/1992	9080 (1)
CEC - Calcium	133.	mg/100g	11/13/1992	9080 (1)
CEC - Magnesium	35.	mg/100g	11/12/1992	9080 (1)
CEC - Sodium	1.8	mg/100g	11/12/1992	9080 (1)
CEC - Potassium	4.8	mg/100g	11/12/1992	9080 (1)

OCEAN GROUP

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett , IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Jim Davis
PATRICK ENGINEERING, INC.
346 Taft Ave.
Glen Ellyn, IL 60137

11/13/1992

Sample No. : 186570

NET Job No.: 92.50181

Sample Description: CB-9; SS-5; Soil
496B; Springfield

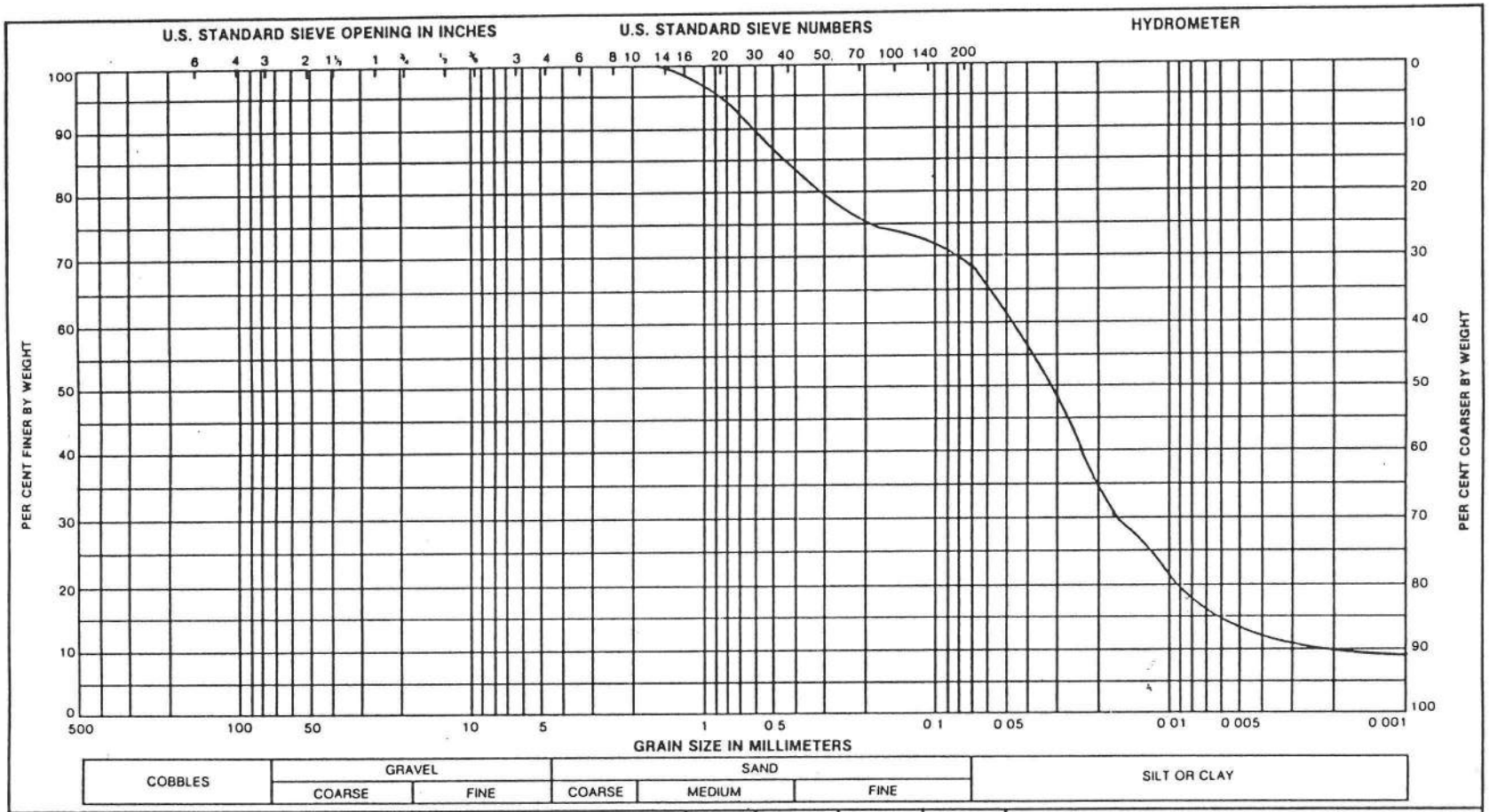
Date Taken:
Time Taken:
IEPA Cert. No. 100221

Date Received: 11/03/1992
Time Received: 11:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Analytical Method
Solids, Total	97.1	%	11/05/1992	2540 (4)
Cation Exchange Capacity	18.1	meq/100g	11/12/1992	9080 (1)
CEC - Calcium	208.	mg/100g	11/13/1992	9080 (1)
CEC - Magnesium	70.	mg/100g	11/12/1992	9080 (1)
CEC - Sodium	3.3	mg/100g	11/12/1992	9080 (1)
CEC - Potassium	6.7	mg/100g	11/12/1992	9080 (1)

OCEAN GROUP

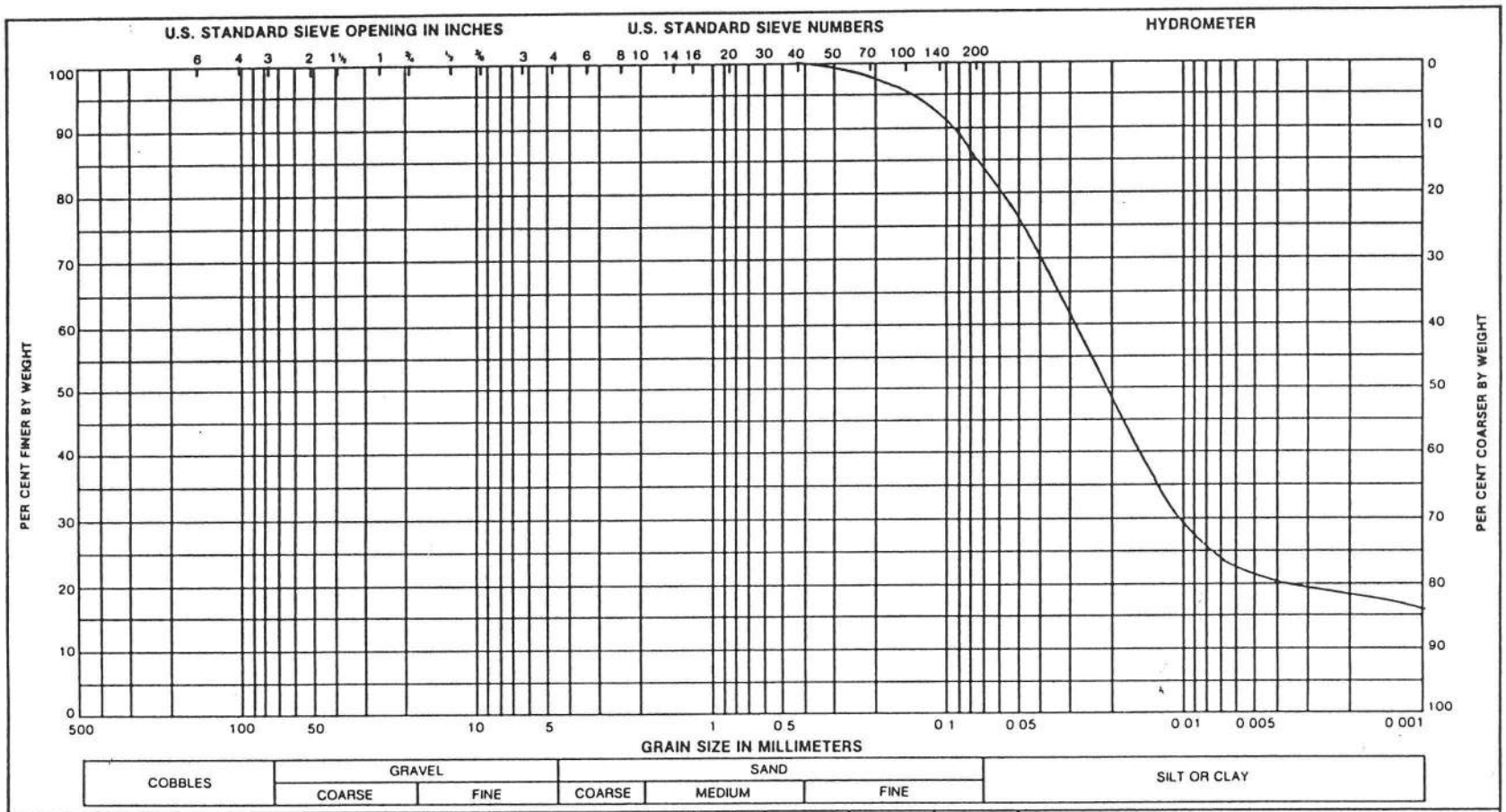
APPENDIX D-2
LABORATORY TESTS BY OTHERS



Boring No.	Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Project
B-2	3-ST	10'-12'	Silty sand, grey, brown		NOT PLASTIC			Subsurface Exploration
								CWLP Ash Disposal Cell
								Springfield, Illinois

REPORT OF SOIL ANALYSIS

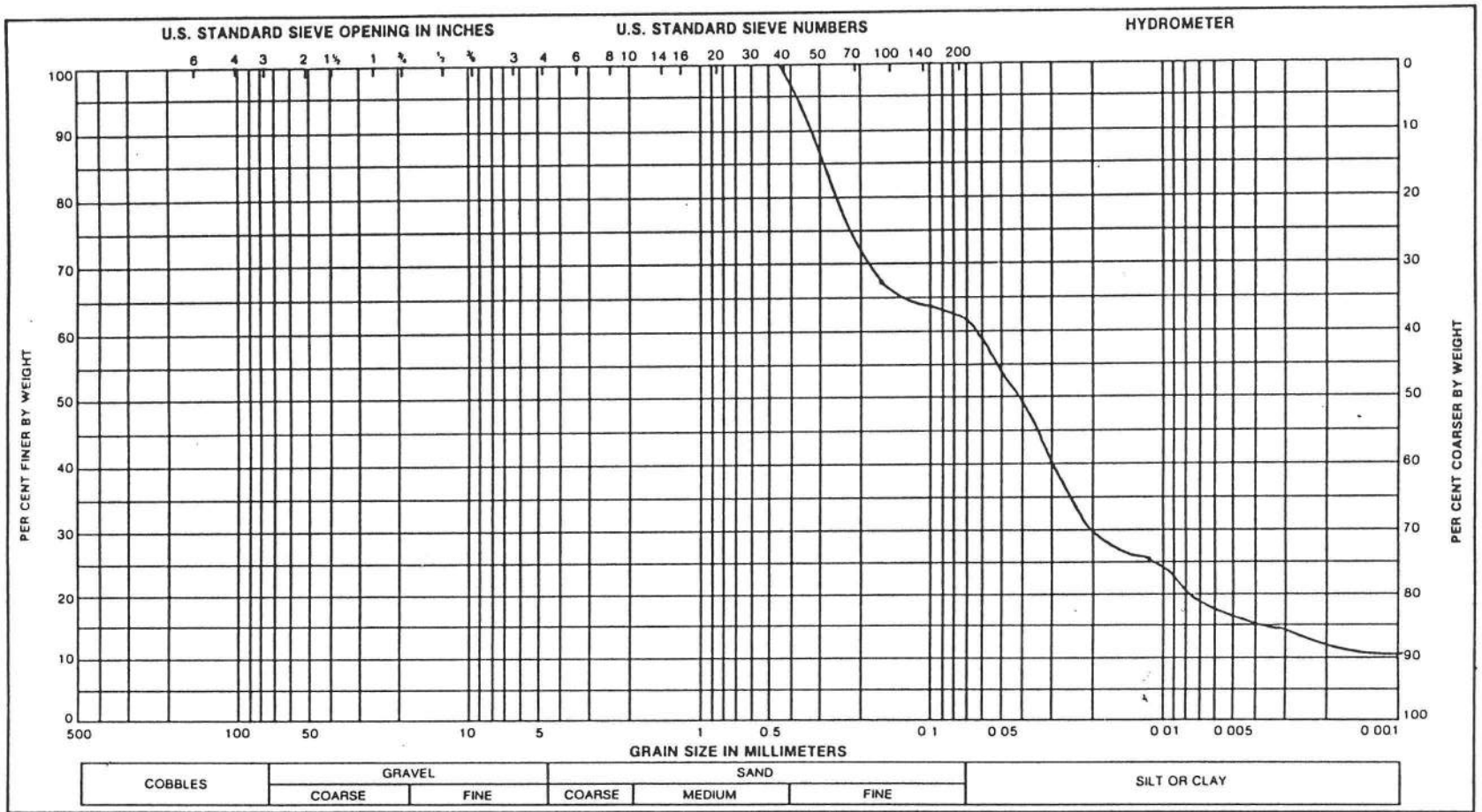
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Boring No.	Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Project
B-2	5-ST	15'-17'	Clayey silt, trace sand,		30	18	12	Subsurface Exploration
			grey					CWLP Ash Disposal Cell
								Springfield, Illinois

REPORT OF SOIL ANALYSIS

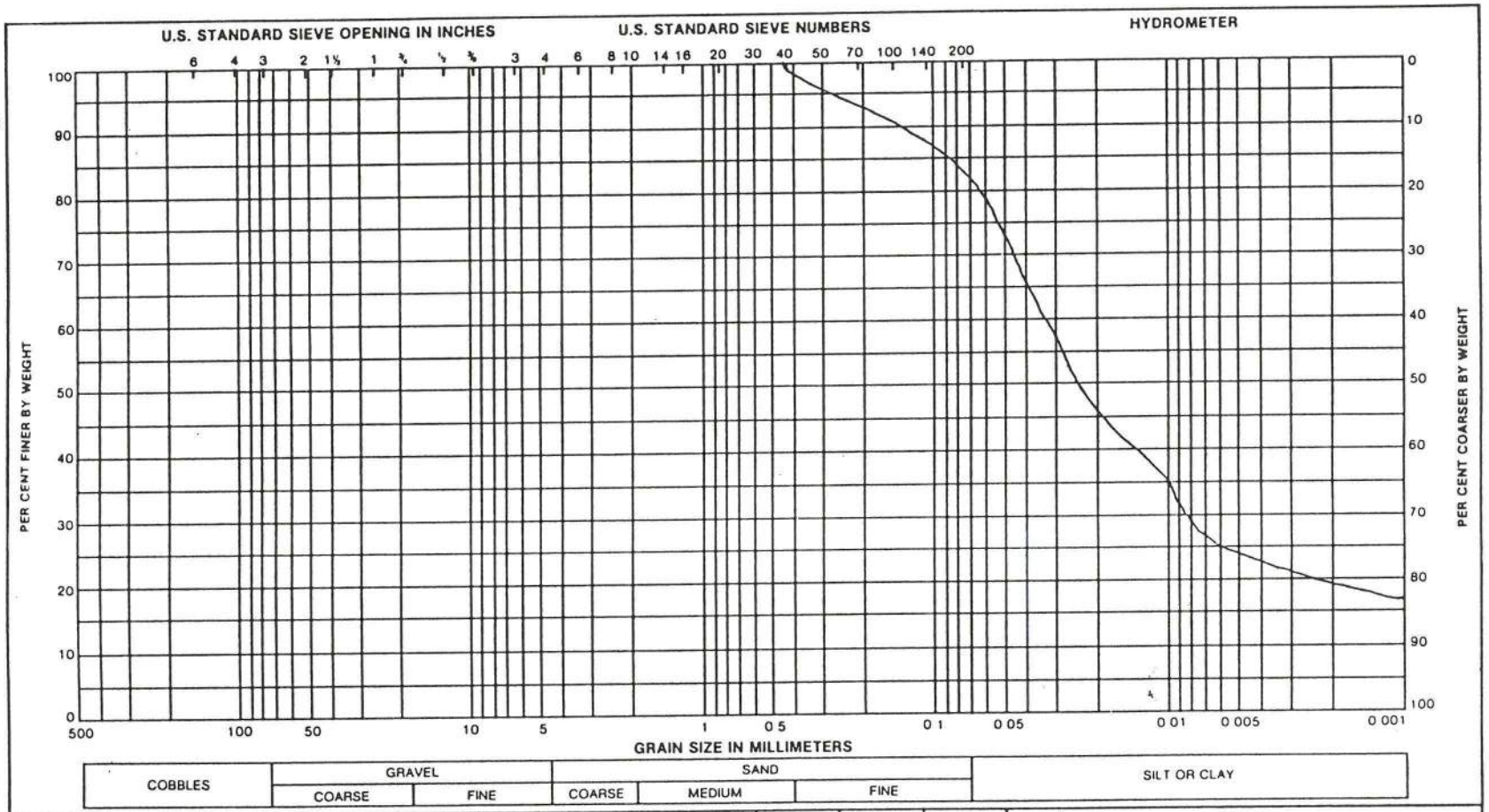
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Boring No.	Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Project
B-2	7-ST	20-22	Sandy silt, grey		NOT PLASTIC			Subsurface Exploration CWLP Ash Disposal Cell Springfield, Illinois

REPORT OF SOIL ANALYSIS

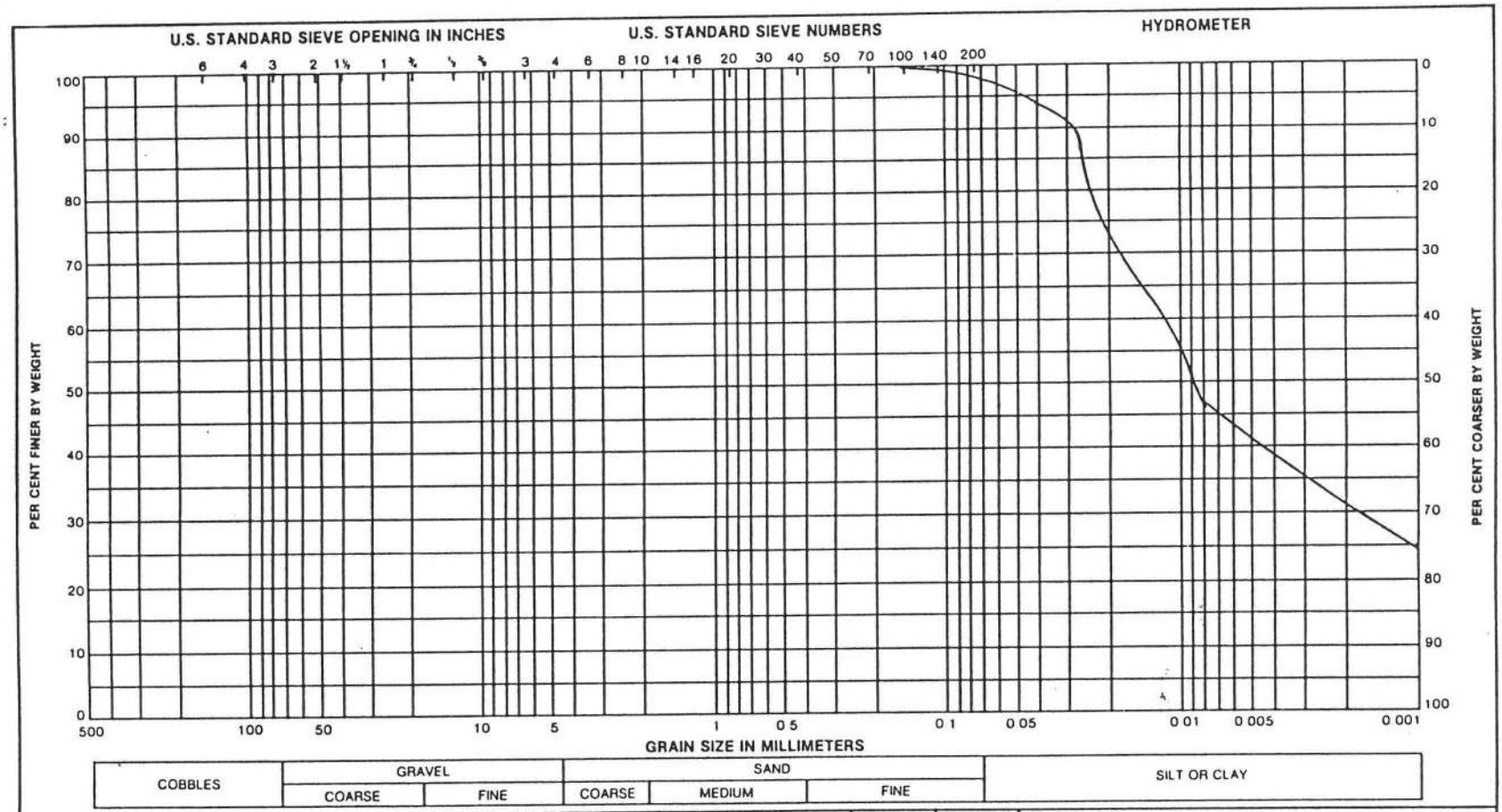
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Boring No.	Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Project
B-5	2-ST	5'-7'	Clayey silt, some sand, brown, mottled grey	--	23	21	2	Subsurface Exploration CWLP Ash Disposal Cell Springfield, Illinois

REPORT OF SOIL ANALYSIS

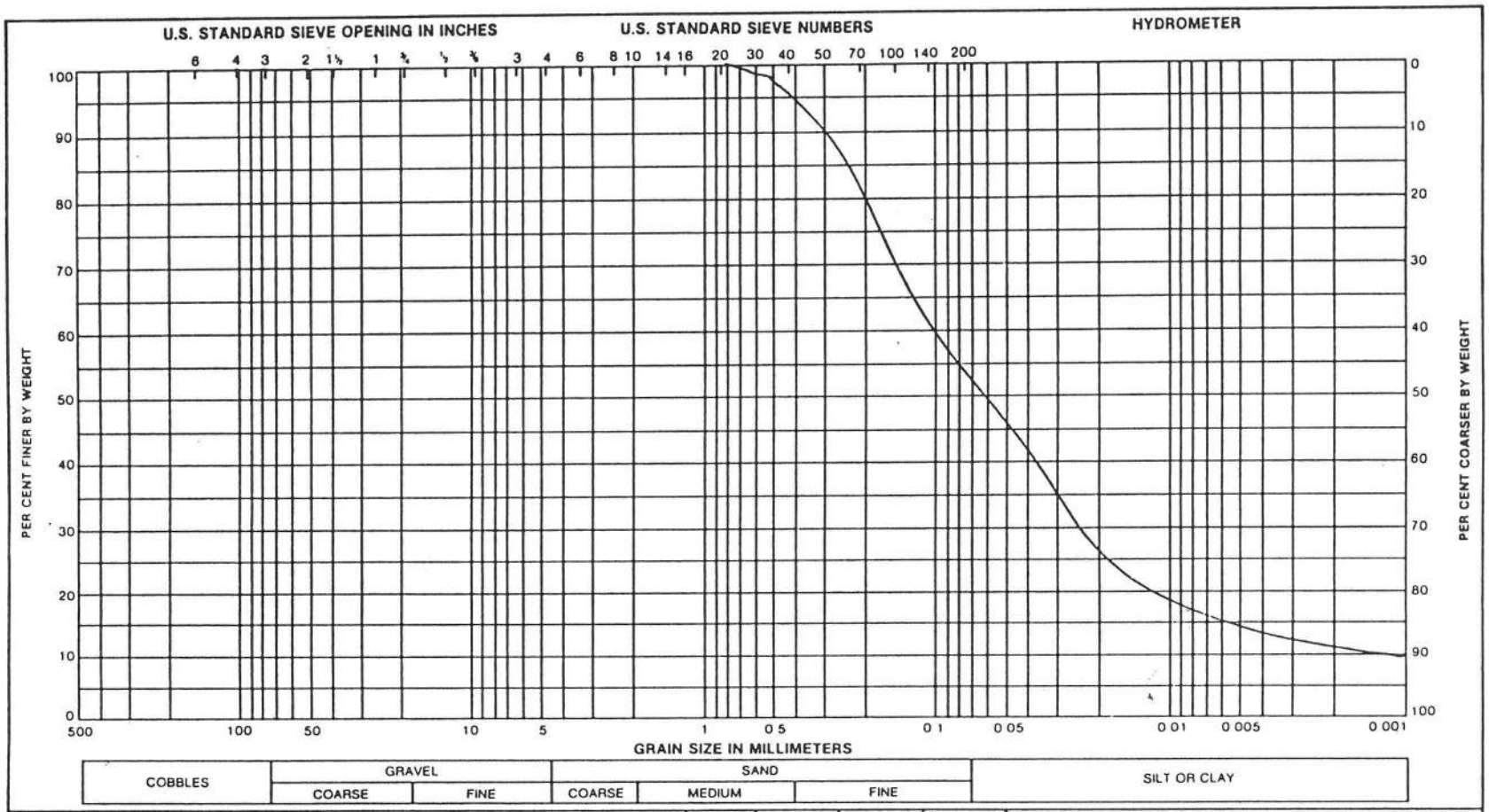
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Boring No.	Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Project
B-13	2-ST	5'-7'	Silty clay, trace sand, grey		39	23	16	Subsurface Exploration CWLP Ash Disposal Cell Springfield, Illinois

REPORT OF SOIL ANALYSIS

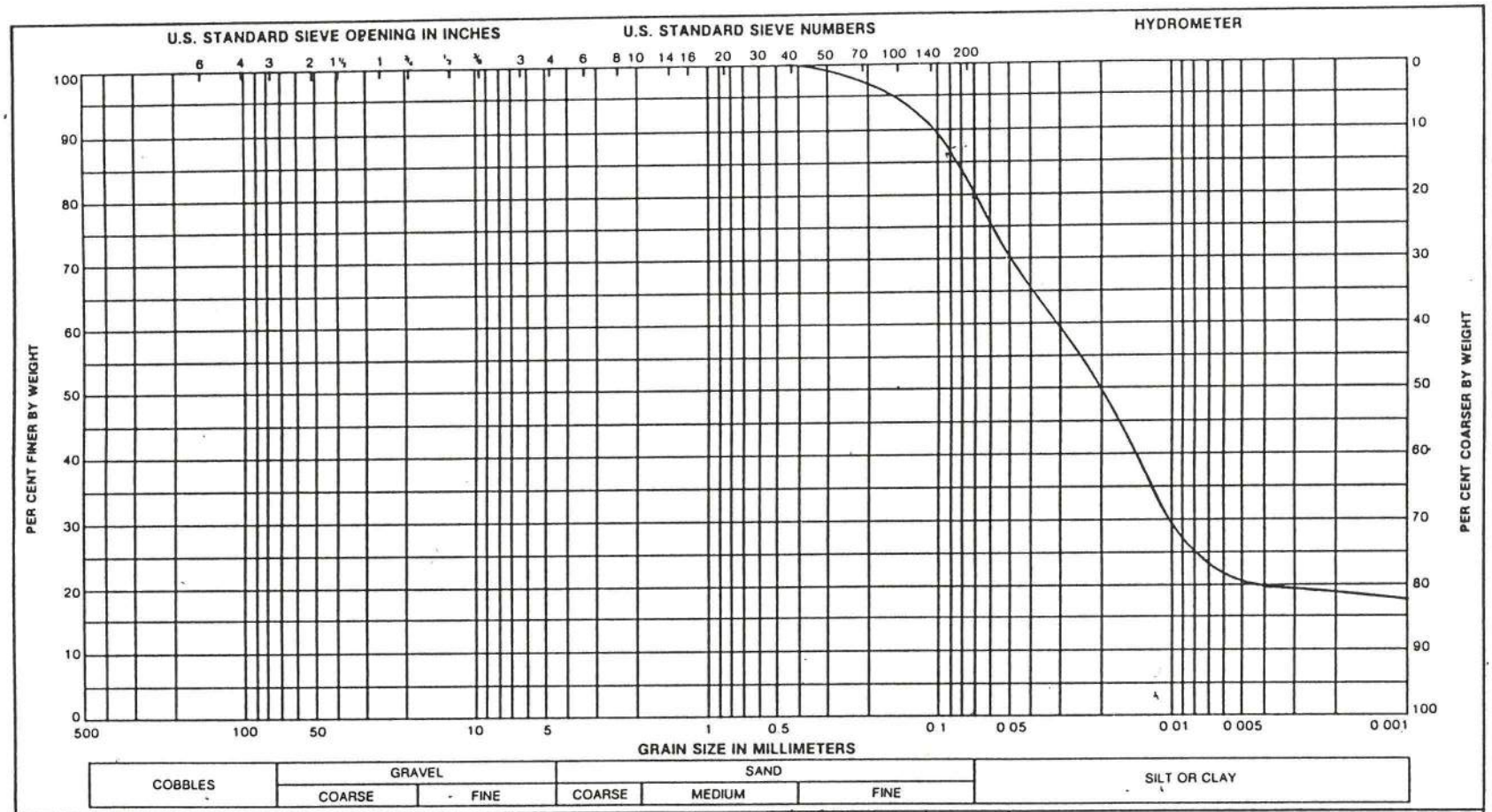
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Boring No.	Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Project
B-13	4-ST	10'-12'	Clayey silt with sand, fine, grey		NOT PLASTIC			Subsurface Exploration CWLP Ash Disposal Cell Springfield, Illinois

REPORT OF SOIL ANALYSIS

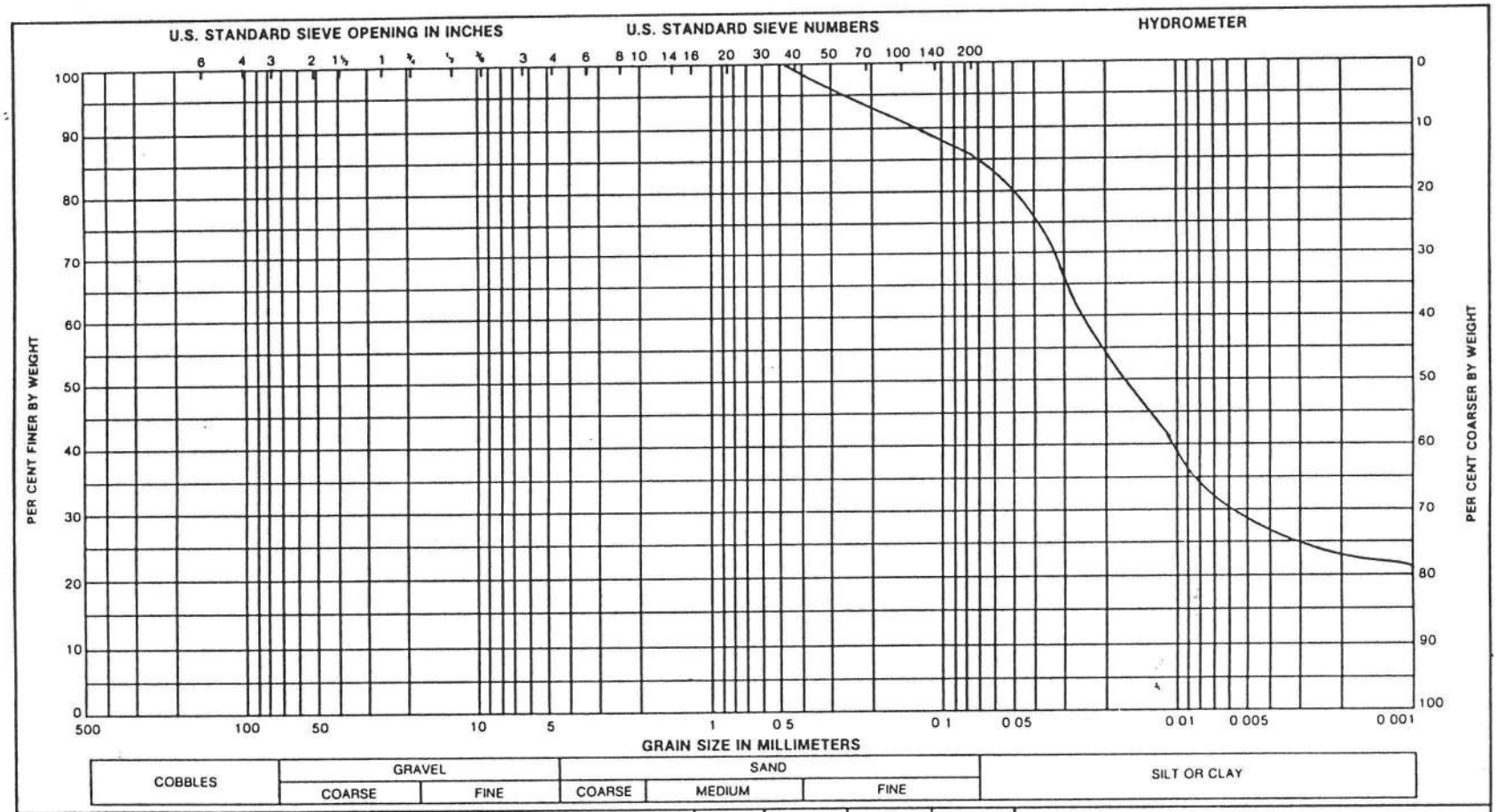
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Boring No.	Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Project
B-13	6-ST	15'-17'	Clayey silt, some sand, grey		NOT PLASTIC			Subsurface Exploration CWLP Ash Disposal Cell Springfield, Illinois

REPORT OF SOIL ANALYSIS

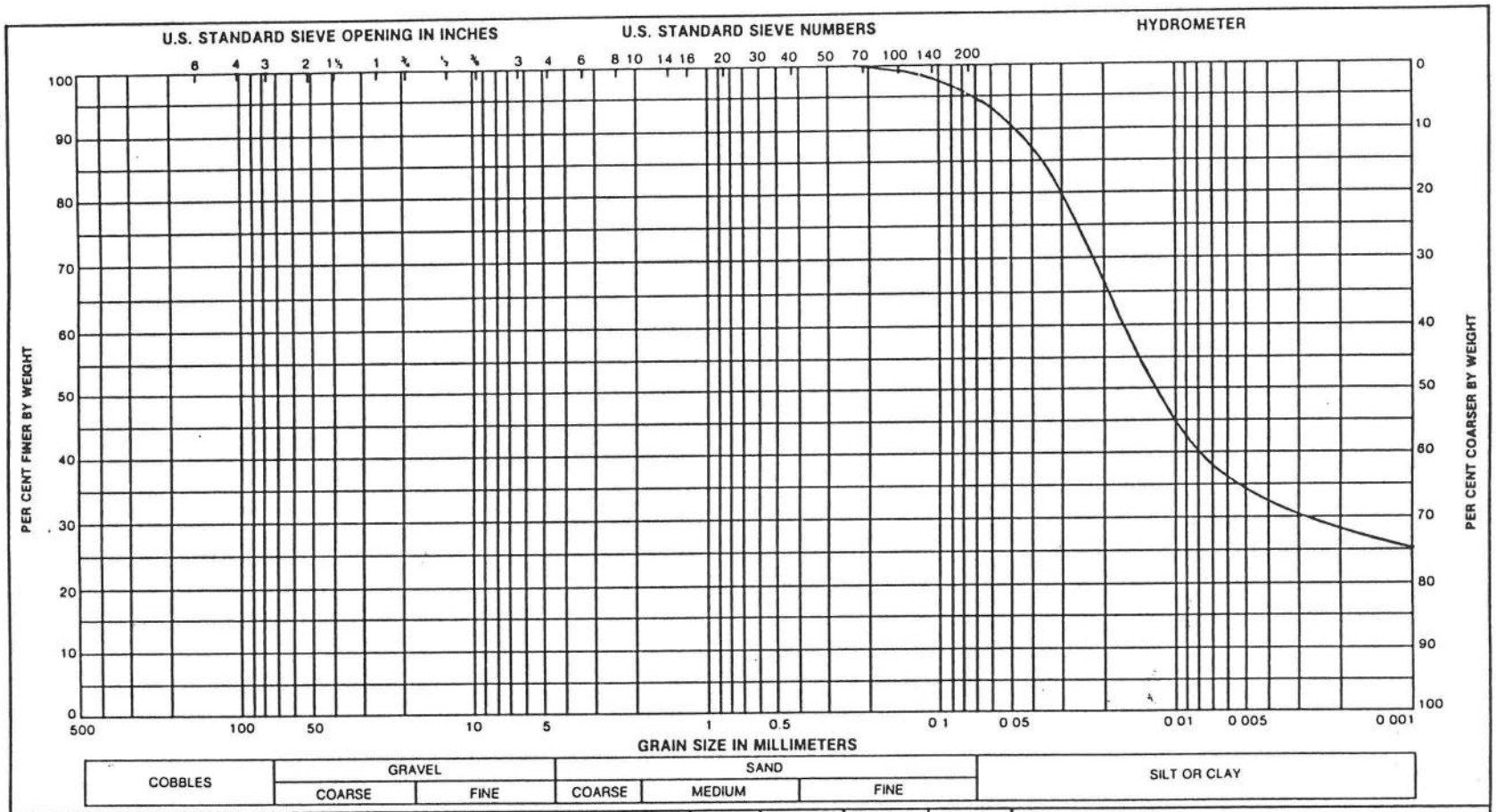
File No. 020-95039



Boring No.	Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Project
B-15	2-ST	5'-7'	Silty clay, some sand, grey		27	19	8	Subsurface Exploration
								CWLP Ash Disposal Cell
								Springfield, Illinois

REPORT OF SOIL ANALYSIS

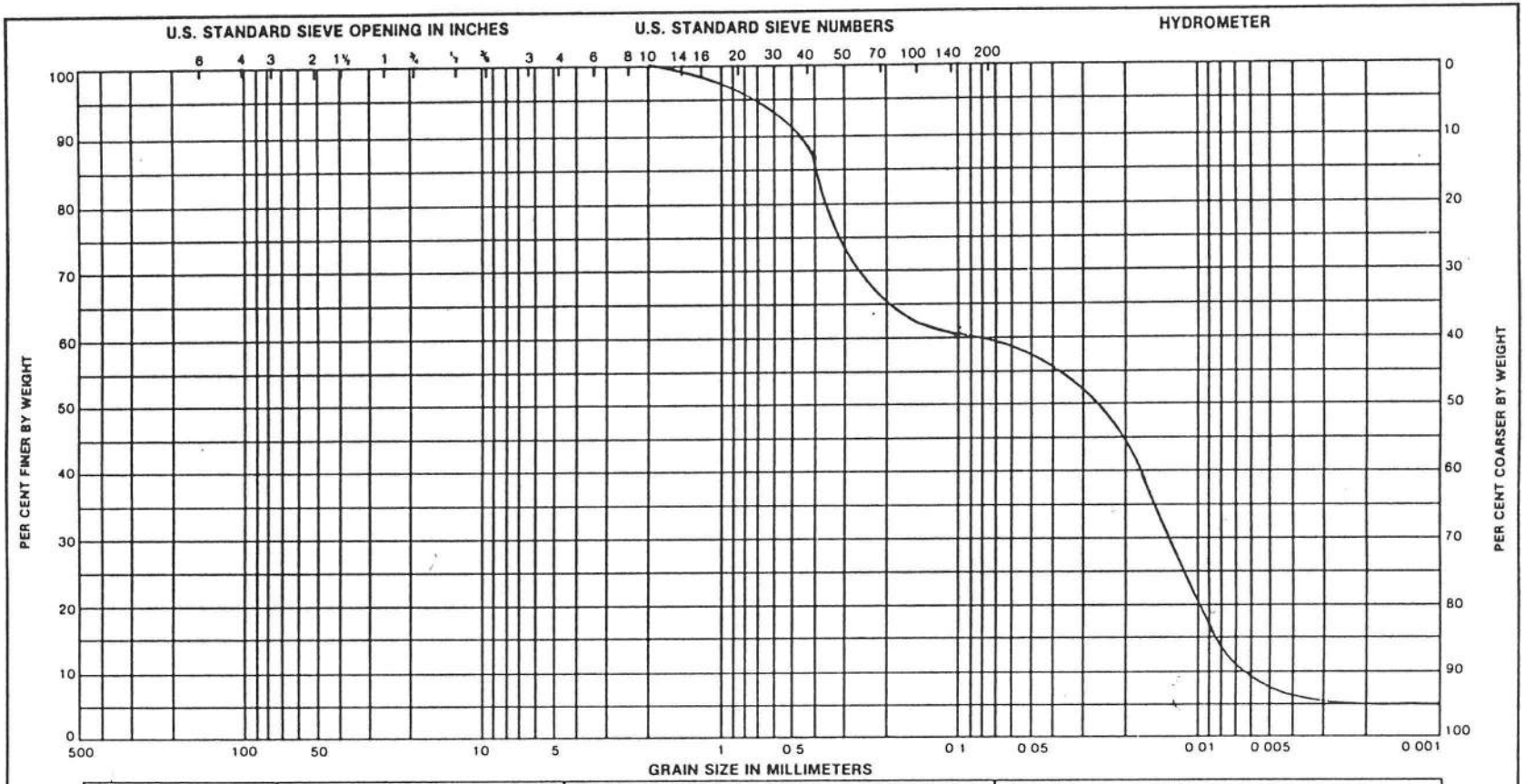
File No. 020-95039



Boring No.	Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Project
B-16	2-ST	5'-7'	Silty clay, some sand, dark grey		38	28	10	Subsurface Exploration CWLP Ash Disposal Cell Springfield, Illinois

REPORT OF SOIL ANALYSIS

File No. 020-95039



Boring No.	Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI	Project
B-16	4-ST	10'-12'	Clayey silt, some sand, fine, grey		NOT PLASTIC			Subsurface Exploration CWLP Ash Disposal Cell Springfield, Illinois

REPORT OF SOIL ANALYSIS

File No. 020-95039

APPENDIX E2:
GEOTECHNICAL INVESTIGATION – 2023/2024

Job #:
23-1071

Andrews Engineering
Springfield, IL Ash Ponds

Sample No.	Depth (ft.)	Moisture Content (%)	Wet Density (PCF)	Dry Density (PCF)	Torvane (TSF)	Grad. -200 (%)	Silt/Clay (%)	Atterberg % (LL/PL)	Hydraulic Cond. (cm/sec)	USCS Visual Description
1	2.5-3	14.5								Sandy Lean Clay (CL), Yellow Brown mottled Brown, Silty, With Coal
1	5-5.5	10.1								Sandy Lean Clay (CL), Yellow Brown mottled Brown, Silty, With Coal
1	7.5-8	19.8								Sandy Lean Clay (CL), Light Brown mottled Yellow Brown, Silty
1	10-10.5	21.7								Sandy Lean Clay (CL), Light Brown/Yellow Brown mottled Gray, Silty
1	13-13.5	21.3								Sandy Lean Clay (CL), Light Brown/Yellow Brown mottled Gray, Silty
1	15.5-16	24.8								Sandy Lean Clay (CL), Light Brown mottled Gray, Silty
1	17.5-18	47.7								Sandy Lean Clay (CL), Light Gray mottled Yellow Brown, Silty
1	20.5-21	25.6								Lean Clay (CL), Gray mottled Greenish Gray, Black Oxidation, Silty
1	22.5-23	27.1								Lean Clay (CL), Gray mottled Light Gray, Silty
1 ST	24.5-26.5	27.9	127.7	99.8	0.49	85.70	65.7/20.0	30 / 17	1.23×10^{-6}	Lean Clay (CL), Gray, Silty, Trace Sand, Medium, Moist
1	28-28.5	25.5								Fat Clay (CL), Gray, Silty
1	32.5-33	26.0								Sandy Lean Clay (CL), Light Gray/Gray mottled Yellow Brown, Silty
1L	2-3.5	18.5								Fat Clay (CH), Yellow Brown mottled Brown
1L	4.5-6	21.4								Fat Clay (CH), Yellow Brown mottled Brown
1L	7-8.5	21.4								Lean Clay (CL), Yellow Brown mottled Brown, Silty
1L	9.5-11	17.7								Sandy Lean Clay (CL), Yellow Brown, Silty
1L	12-13.5	23.4								Poorly Graded Sand (SP), Dark Brown, Fine to Coarse
1L	14.5-16	19.7								Poorly Graded Sand (SP), Dark Brown, Fine to Coarse
1L	17-18.5	n/a								
1L	19.5-21	30.7								Sandy Lean Clay (CL), Light Gray mottled Yellow Brown, Silty
1L ST-18	22-24	30.7	118.9	91.0	0.57	97.60	63.0/34.6	43/21	5.84×10^{-6}	Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Stiff, Moist
1LL	2-3.5	11.7								Sandy Lean Clay with Gravel (CL), Yellow Brown mottled Brown, Silty
1LL	4.5-6	13.4								Fat Clay (CH), Yellow Brown mottled Light Gray
1LL	7-8.5	20.1								Fat Clay (CH), Yellow Brown mottled Light Gray
1LL	9.5-11	17.8								Poorly Graded Sand (SP), Yellow Brown, Fine to Medium
1LL	12-13.5	22.1								Fat Clay (CH), Gray mottled Light Gray
1LL ST-12	14.5-16.5	24.7	125.2	100.4	0.26	84.40	64.5/19.9	39/21	6.02×10^{-6}	Lean Clay with Sand (CL), Gray, Silty, Medium, Moist
1LL	17-18.5	26.2								Fat Clay (CH), Light Brown, Silty
1U	2-3.5	14.6								Lean Clay (CL), Brown mottled Light Gray/Reddish Brown, Silty, With Coal
1U	4.5-6	21.0								Lean Clay (CL), Brown mottled Light Brown/Light Gray, Silty, Trace Gravel
1U	7-8.5	36.5								Silt (ML), Black, Clayey, With Coal
1U	9.5-11	6.1								Coal, Black, With Silt
1U	12-13.5	32.2								Coal, Black
1U	14.5-16	59.2								Silt (ML), Black, Clayey, With Coal
1U	17-18.5	68.6								Silt (ML), Black, With Coal and Ash
1CCR	2-3.5	10.7								Cinders, Black
1CCR	4.5-6	11.3								Cinders, Black
1CCR	7-8.5	22.2								Cinders/Ash Black
1CCR	9.5-11	21.5								Cinders/Ash Black
1CCR	12-13.5	20.1								Cinders. Black
1CCR	14.5-16	53.5								Cinders, Black, With Clayey Silt
1CCR	17-18.5	22.2								Cinders, Black

GEOTECHNICS
Soil & Material Testing

Lab Data Summary

* Shelby Tube Samples Colored in Yellow
* Additional Atterberg Testing Requested Colored in Red

Job #:
23-1071

Andrews Engineering
Springfield, IL Ash Ponds

Sample No.	Depth (ft.)	Nat. Moist. (%)	Wet Density (PCF)	Dry Density (PCF)	Torvane (TSF)	Grad. -200 (%)	Silt/Clay (%)	Atterberg % (LL/PL)	Hydraulic Cond. (cm/sec)	USCS Visual Description
2	2-3.5	18.5								Fat Clay (CH), Brown mottled Light Gray
2	4.5-6	22.0								Fat Clay (CH), Yellow Brown mottled Light Gray, Black Oxidation
2	7-8.5	27.0								Fat Clay (CH), Dark Brown mottled Brown
2	9.5-11	24.9								Fat Clay (CH), Yellow Brown mottled Brown
2	12-13.5	28.4								Fat Clay (CH), Light Gray mottled yellow Brown
2	14.5-16	25.7								Fat Clay (CH), Yellow Brown mottled Light Gray, Trace Sand
2	17-18.5	27.2								Fat Clay (CH), Light Gray mottled Yellow Brown
2	19.5-21	27.2								Fat Clay (CH), Yellow Brown mottled Light Gray
2 ST	22-24	26.8	123.1	97.1	0.50	91.70	57.8/33.9	57/21	$6.87x10^{-8}$	Fat Clay (CH), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist
2	24.5-26	24.3								Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation
2	27-27.5	21.2								Sandy Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty
2	27.5-28.5	22.4								Sandy Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty
2L	2-3.5	21.8								Fat Clay (CH), Yellow Brown mottled Light Gray/Brown
2L	4.5-6	28.9								Fat Clay (CH), Yellow Brown mottled Light Gray, Black Oxidation
2L ST 6	7-9'	25.5	126.5	100.8	0.33	87.70	74.3/13.4	27/21	$8.24x10^{-6}$	Silty Clay (CL-ML), Yellow Brown mottled Light Gray, Trace Sand, Medium, Moist
2L	9.5-11	22.5								Sandy Lean Clay (CL), Yellow Brown mottled Light Gray, Silty
2L	12-13.5	22.0								Sandy Lean Clay (CL), Yellow Brown mottled Brown, Silty
2L	14.5-16	23.6						20/16		Sandy Silty Clay (CL), Yellow Brown mottled Light Gray
2L	17-18.5	21.1								Sandy Lean Clay (CL), Light Brown mottled Yellow Brown/Brown, Silty
2L	19.5-21	21.4								Poorly Graded Sand (SP), Yellow Brown, Fine, With Clay Seams
2L	22-23.5	29.0								Lean Clay (CL), Light Gray, Silty
2U	2-3.5	8.1								Cinders, Dark Brown
2U	4.5-6	8.3								Cinders, Dark Brown
2U	7-8.5	20.2								Fat Clay (CH), Yellow Brown mottled Light Gray
2U	9.5-11	11.0								Cinders/Silt, Dark Brown
2U	12-13.5	65.7								Sandy Silt (ML), Dark Brown
2U	14.5-16	46.3								Sandy Silt (ML), Dark Brown
2U	17-18.5	24.6								Poorly Graded Sand (SP), Dark Brown, Fine to Coarse
2U	19.5-21	53.1								Coal, Dark Gray
2U	22-23.5	31.7								Poorly Graded Sand (SP), Dark Gray, Fine to Coarse
2U	24.5-26	27.4								Fat Clay (CH), Yellow Brown mottled Light Gray
2CCR	2-3.5	58.6								Lean Clay (CL), Light Gray mottled Yellow Brown/Brown, Silty, Trace Coal
2CCR	4.5-6	23.5								Coal, Black over Silt (ML), Light Gray, Clayey
2CCR	7-8.5	238.7								Ash, Light Gray
2CCR	9.5-11	107.7								Coal/Ash, Black
2CCR	12-13.5	86.4								Coal, Black over Silt (ML), Light Gray, Clayey
2CCR	14.5-16	54.5								Coal, Black, Clayey, With Organics
2CCR	17-18.5	86.8								Coal, Black

GEOTECHNICS
Soil & Material Testing

Lab Data Summary

* Shelby Tube Samples Colored in Yellow
* Additional Atterberg Testing Requested Colored in Red

Job #:
23-1071

Andrews Engineering
Springfield, IL Ash Ponds

Sample No.	Depth (ft.)	Nat. Moist. (%)	Wet Density (PCF)	Dry Density (PCF)	Torvane (TSF)	Grad. -200 (%)	Silt/Clay (%)	Atterberg % (LL/PL)	Hydraulic Cond. (cm/sec)	USCS Visual Description
3	2-3.5	25.9								Fat Clay (CH), Brown mottled reddish Brown
3	4.5-6	20.6								Poorly Graded Sand (SP), Brown, Fine to Medium
3	7-8.5	22.2								Lean Clay (CL), Light Brown mottled Brown
3 ST 8	9.5-11.5	25.8	122.9	97.7	0.67	98.10	67.6/30.5	60/24	$8.50x10^{-9}$	Fat Clay (CH), Light Gray mottled Yellow Brown, Black Oxidation, Silty, Stiff, Moist
3	12-13.5	26.6								Fat Clay (CH), Brown mottled Light Gray/Reddish Brown
3	14.5-16	24.8								Fat Clay (CH), Brown, Reddish Oxidation
3	17-18.5	27.1								Fat Clay (CH), Light Gray mottled Yellow Brown/Brown
3 ST16	19.5-21.5	25.8	121.6	96.7	0.62	95.00	65.7/29.3	43/20	$4.27x10^{-7}$	Lean Clay (CL), Gray mottled Yellow Brown, Silty, Stiff, Moist
3	22-23.5	29.0								Fat Clay (CH), Light Gray mottled Yellow Brown, Silty
3	24.5-26	25.8								Lean Clay (CL), Light Brown mottled Yellow Brown, Black Oxidation, Silty
3	27-28.5	28.9								Fat Clay (CH), Light Brown mottled Light Gray
3U	2-3.5	16.0								Lean Clay (CL), Brown mottled Yellow Brown/Light Brown, Silty, Trace Sand
3U	4.5-6	27.7								Ash, Yellow Brown
3U	7-8.5	20.7								Lean Clay (CL), Brown mottled Light gray, With Coal
3U ST 8	9.5-11.5	21.3	122.6	101.0	0.55	81.10	65.5/15.6	38/22	$1.52x10^{-8}$	Lean Clay with Sand (CL), Yellow Brown mottled Light Gray/Gray, Silty, Stiff, Moist
3U	12-13.5	37.2								Coal, Black
3U	14.5-16	32.0								Silt (ML), Brown, Clayey
3U	17-18.5	62.6								Silt (ML), Brown, Clayey
3CCR	2-3.5	22.7								Lean Clay (CL), Brown, Silty, Trace Coal
3CCR	4.5-6	91.2								Ash, Light Gray, With Clay Seams
3CCR	7-8.5	51.6								Ash, Light Gray, With Clay Seams
3CCR	9.5-11	113.5								Coal, Black
3CCR	12-13.5	86.9								Coal, Black, With Organics/Clay Seams
3CCR	14.5-16	61.1								Coal, Black, With Clay Seams
3CCR	17-18.5	65.8								Coal, Black, With Clay Seams
4	3-3.5	16.5								Lean Clay (CL), Light Gray mottled Yellow Brown
4	5.5-6	18.2								Lean Clay (CL), Yellow Brown mottled Brown
4	7.5-8	23.6								Fat Clay (CH), Yellow Brown mottled Light Gray, Black Oxidation
4	10.5-11	26.9								Fat Clay (CH), Yellow Brown mottled Light Gray, Black Oxidation
4	12.5-13	26.6								Fat Clay (CH), Yellow Brown mottled Light Gray, Black Oxidation
4	14.5-16	26.1								Fat Clay (CH), Yellow Brown mottled Light Gray, Black Oxidation, Trace Sand
4	17.5-18	27.4								Fat Clay (CH), Yellow Brown mottled Light Gray, Black Oxidation
4 ST	19.5-21.5	28.3	124.0	96.7	0.95	97.20	64.8/32.4	49/22	$6.53x10^{-8}$	Lean Clay (CL/CH), Yellow Brown mottled Light Gray, Silty, Stiff, Moist
4	22-22.5	30.1								Fat Clay (CH), Yellow Brown/Light Brown mottled Brown, Silty
4	25-25.5	33.4								Fat Clay (CH), Yellow Brown mottled Light Gray, Silty
4	27-27.5	22.7								Sandy Lean Clay (CL), Light Gray mottled Yellow Brown, Silty
4	30-30.5	23.5								Sandy Lean Clay (CL), Yellow Brown mottled Light Gray, Silty

GEOTECHNICS
Soil & Material Testing

Lab Data Summary

* Shelby Tube Samples Colored in Yellow
* Additional Atterberg Testing Requested Colored in Red

Job #:
23-1071

Andrews Engineering
Springfield, IL Ash Ponds

Sample No.	Depth (ft.)	Nat. Moist. (%)	Wet Density (PCF)	Dry Density (PCF)	Torvane (TSF)	Grad. -200 (%)	Silt/Clay (%)	Atterberg % (LL/PL)	Hydraulic Cond. (cm/sec)	USCS Visual Description
4L	2-3.5	31.7								Lean Clay (CL), Dark Brown, Silty over Fat Clay (CH), Yellow Brown mottled Light Gray, Trace Gravel
4L	4.5-6	27.7								Fat Clay (CH), Yellow Brown mottled Light Gray, Black Oxidation
4L	7-8.5	27.3								Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation
4L	9.5-11	29.8								Fat Clay (CH), Yellow Brown mottled Light Gray, Trace Sand
4L ST10	12-14'	27.4	124.2	97.5	0.42	87.90	71.7/16.2	32/20	$9.53x10^{-7}$	Lean Clay (CL), Brown mottled Yellow Brown/Light Gray, Silty, Trace Sand, Medium, Moist
4L	14.5-16	25.7								Lean Clay with Sand (CL), Yellow Brown mottled Light gray
4L	17-18.5	27.4						31/23		Lean Clay (CL/ML), Light Gray, Silty
4U	2-3.5	6.5								Cinders, Black
4U	4.5-6	30.8								Fat Clay (CH), Yellow Brown mottled Gray, Silty
4U	7-8.5	23.0								Fat Clay (CH), Yellow Brown mottled Gray, Silty, With Cinders
4U	9.5-11	36.4								Silt (ML), Black, With Cinders
4U	12-13.5	24.5								Cinders, Black
4U	14.5-16	38.0								Cinders, Black, Silty
4U	17-18.5	24.8								Cinders, Black
4U	19.5-21	18.0								Coal, Black
4U	22-23.5	59.2								Ash, Light Gray
4U	24.5-26	28.0								Fat Clay (CH), Yellow Brown mottled Light Gray
4U ST22	27-29	26.9	125.3	98.7	0.53	97.10	69.6/27.5	62/24	$9.17x10^{-9}$	Fat Clay (CH), Yellow Brown mottled Light Gray, Silty, Stiff, Moist
4CCR	2-3.5	21.0								Lean Clay (CL), Yellow Brown, With Brick
4CCR	4.5-6	23.0								Silt (ML), Brown, Clayey, With Clay Seams
4CCR	7-8.5	56.0								Ash, Light Gray
4CCR	9.5-11	91.3								Cinder/Ash, Black
4CCR	12-13.5	83.6								Cinder/Ash, Black
4CCR	14.5-16	59.3								Cinders/Silt, Black
4CCR	17-18.5	33.0								Cinders, Black
4CCR	19.5-21	59.5								Ash/Cinders, Black
5	2-3.5	14.8								Fat Clay (CH), Yellow Brown mottled Brown, Trace Coal
5	4.5-6	16.7								Fat Clay (CH), Yellow Brown mottled Brown, Trace Coal
5	7-8.5	13.6								Lean Clay with Sand (CL), Yellow Brown mottled Light Gray,
5	9.5-11	22.1								Fat Clay (CH), Yellow Brown mottled Light Gray, Silty
5	12-13.5	21.0								Fat Clay (CH), Yellow Brown mottled Light Gray
5	14.5-16	22.8								Fat Clay (CH), Brown mottled Yellow Brown
5	17-18.5	21.2								Lean Clay (CL), Brown mottled Light Brown
5	19.5-21	21.8								Fat Clay (CH), Brown, Silty
5	22-23.5	19.4								Sandy Lean Clay (CL), Light Gray mottled Gray/Yellow Brown
5 ST	24.5-26.5	24.3	124.0	99.8	0.25	90.20	67.3/22.9	43/22	$2.67x10^{-7}$	Lean Clay (CL), Light Gray mottled Gray/Yellow Brown, Silty, Trace Sand, Medium, Moist
5	27-28.5	25.6								Lean Clay (CL), Yellow Brown mottled Light Gray
5	29.5-31	24.5								Lean Clay (CL), Yellow Brown mottled Light Gray, Silty
5	32-33.5	24.7								Lean Clay (CL), Yellow Brown mottled Light Gray, Silty
5	34.5-36	24.6								Lean Clay (CL), Yellow Brown mottled Light Gray, Silty
5	37-38.5	23.6								Sandy Lean Clay (CL), Gray, Silty

GEOTECHNICS
Soil & Material Testing

Lab Data Summary

* Shelby Tube Samples Colored in Yellow
* Additional Atterberg Testing Requested Colored in Red

Job #:
23-1071

Andrews Engineering
Springfield, IL Ash Ponds

Sample No.	Depth (ft.)	Nat. Moist. (%)	Wet Density (PCF)	Dry Density (PCF)	Torvane (TSF)	Grad. -200 (%)	Silt/Clay (%)	Atterberg % (LL/PL)	Hydraulic Cond. (cm/sec)	USCS Visual Description
5L	3-3.5	18.9								Fat Clay (CH), Brown mottled Light Brown
5L	5-6'	23.1								Fat Clay (CH), Brown mottled Yellow Brown
5L	8-8.5	22.5								Fat Clay (CH), Brown mottled Light Gray
5L ST	9.5-11	28.8	119.9	93.1	0.51	94.60	73.2/21.4	46/24	$5.18x10^{-7}$	Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist
5L	13-13.5	30.1								Fat Clay (CH), Brown mottled Light Gray, Silty
5L	15.5-16	30.9								Fat Clay (CH), Brown mottled Light Gray, Silty
5L	17-17.5	28.3						39/22		Lean Clay (CL), Light Gray mottled Yellow Brown, Silty
5CCR	3-3.5	24.6								Silt with Sand (ML), Light Gray
5CCR	5.5-6	24.2								Sandy Lean Clay (CL), Gray, Silty
5CCR	7-7.5	27.8								Sandy Silt (ML), Gray
5CCR	9.5-10	13.5								Silty Sand (SM), Dark Brown, Trace Gravel
5CCR	15-15.5	9.8								Coal, Black
5CCR	17.5-18	13.9								Coal, Black
6	0-2	7.3								Clayey Sand with Gravel (SC), Brown
6	2-4'	21.3								Lean Clay (CL), Brown mottled Light Brown, Trace Sand, Fat Seams
6	5-7.5	24.0								Lean Clay (CL), Brown mottled Gray, Trace Sand, Fat Seams
6	7.5-9	20.5								Lean Clay (CL), Gray mottled Light Brown, Trace Sand/Coal
6	10-11.5	20.5								Fat Clay (CH/CL), Light Gray mottled Gray/Light Brown,
6	12.5-14	20.9								Lean Clay (CL), Brown, Silty
6	15-16.5	19.9								Lean Clay (CL), Light Gray mottled Light Brown, Silty
6 ST	17-19	21.9	128.6	105.5	0.95	90.20	61.9/28.3	34/19	$4.25x10^{-8}$	Lean Clay (CL), Gray/Greenish Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist
6	19-21	n/a								Lean Clay (CL), Brown, Silty, With Organics
6	21-23	22.0								Lean Clay (CL), Brown/Gray, Silty
6	23-25	20.6								Lean Clay with Sand (CL), Gray mottled Brown, With Coal
6	25-27	31.3								Lean Clay (CL), Gray, Silty
6	27-29	27.1								Sandy Silt (ML), Gray, Clayey
6	29-31	29.9								Silt (ML), Gray, Clayey
6	31-33	n/a								
6	33-35	28.2								Lean Clay (CL), Gray mottled Yellow Brown, Silty
6	35-37	27.1								Lean Clay (CL), Brown mottled Light Brown, Trace Sand, Fat Seams
6	37-39	21.0								Sandy Silt (ML), Light Gray mottled Yellow Brown, Clayey
6L	2.5-4	17.8								Lean Clay (CL), Brown mottled Yellow Brown, Silty
6L	5-6.5	21.5								Lean Clay (CL), Brown mottled Reddish Brown, Silty
6L ST1	7.5-9	26.6	121.9	96.3	0.44	91.60	74.1/17.5	41/23	$5.47x10^{-7}$	Lean Clay (CL), Light Gray mottled Reddish Brown, Silty, Trace Sand, Medium, Moist
6L	10-11.5	27.5								Lean Clay with Sand (CL), Brown, Silty
6L	12.5-14	23.5								Silty Clayey Sand (SC-SM), Light Gray mottled Yellow Brown
6L	15-16.5	24.9								Clayey Sand (SC), Yellow Brown mottled Light Gray
6L	17.5-19	35.9						31/19		Lean Clay (CL), Gray, Trace Organics
6L	20-21.5	21.1								Silty Clayey Sand (SC-SM), Gray
6L	22.5-24	24.0								Silty Clayey Sand (SC-SM), Light Gray mottled Light Brown

GEOTECHNICS
Soil & Material Testing

Lab Data Summary

* Shelby Tube Samples Colored in Yellow
* Additional Atterberg Testing Requested Colored in Red

Job #:
23-1071

Andrews Engineering
Springfield, IL Ash Ponds

Sample No.	Depth (ft.)	Nat. Moist. (%)	Wet Density (PCF)	Dry Density (PCF)	Torvane (TSF)	Grad. -200 (%)	Silt/Clay (%)	Atterberg % (LL/PL)	Hydraulic Cond. (cm/sec)	USCS Visual Description
6CCR	2-3.5	15.5								Ash/Cinders, Black, Clayey
6CCR	4.5-6	13.3								Ash/Cinders/Coal, Black, Clayey
6CCR	7-8.5	29.4								Ash, Gray
6CCR	9.5-11	39.1								Silt (ML), Brown mottled Light Gray
6CCR	12-13.5	44.4								Silt (ML), Light gray
6CCR	14.5-16	51.6								Silt (ML), Light Gray mottled Brown
6CCR	17-18.5	87.7								Silt (ML), Dark Brown mottled Light Brown
6CCR	19.5-21	106.5								Silt (ML), Dark Brown
6CCR	22-23.5	97.4								Silt (ML), Dark Brown mottled Brown
7	2.5-3	15.1								Sandy Lean Clay (CL), Yellow Brown mottled Light Gray
7	4.5-5	21.8								Lean Clay (CL), Light Brown/Brown mottled Yellow Brown, With Fat Clay Seams
7	7.5-8	21.1								Fat Clay (CH), Light Brown mottled Light Gray, Silty, With Lean Clay Seams
7	10-10.5	21.3								Lean Clay (CL), Light Brown mottled Brown/Light Gray, Silty
7	12-12.5	24.7								Lean Clay (CL), Brown mottled Light Brown, Silty
7	15-15.5	21.1								Lean Clay (CL), Brown mottled Yellow Brown/Light Gray, With Organics
7	17.5-18	19.5								Sandy Lean Clay (CL), Brown mottled Light Gray
7 ST	19.5-21.5	25.8	120.2	95.5	0.55	97.70	62.2/35.5	63/20	$1.71x10^{-8}$	Fat Clay (CH), Brown/ Yellow Brown mottled Light Gray, Silty, Stiff, Moist
7	23-23.5	24.4								Fat Clay (CH), Yellow Brown mottled Light Gray, Black Oxidation
7	25-25.5	26.1								Fat Clay (CH/CL), Light Gray mottled Yellow Brown
7	27.5-28	28.6								Silty Clayey Sand (SC-SM), Brown mottled Yellow Brown
7	30-30.5	30.7								Sandy Silt (ML), Light Brown, With Fat Clay Seams
7	32.5-33	38.1								Fat Clay (CH), Light Gray, With Silty Sand Seams
7	35-36.5	32.4								Silt (ML), Gray, Clayey
7	37-37.5	39.2								Silt (ML), Brown, Clayey
7CCR	2-3.5	26.5								Silt (ML), Brown, Clayey
7CCR	4.5-6	46.8								Silt (ML), Brown, Clayey, With Cinders
7CCR	7-8.5	54.9								Silt (ML), Brown, Clayey
7CCR	9.5-11	55.5								Sandy Silt (ML), Light Gray
7CCR	12-13.5	42.7								Silt (ML), Light Gray
7CCR	14.5-16	49.5								Silt (ML), Light Gray mottled Dark Brown
7CCR	17-18.5	45.8								Silty Sand (SM), Light Gray
7L	2-3.5	16.8								Fat Clay (CH), Yellow Brown mottled Light Gray
7L	4.5-6	14.6								Fat Clay (CH), Light Gray mottled Brown over Sandy Lean Clay (CL), Yellow Brown mottled Light Brown
7L	7-8.5	24.1								Sandy Lean Clay (CL), Yellow Brown mottled Brown over Poorly Graded Sand (SP), Yellow Brown, Fine, Silty
7L	9.5-11	27.3								Fat Clay (CH), Light Brown mottled Brown, Silty, Trace Sand
7L	12-13.5	37.7								Silt (ML), Brown
7L	15-16.5	29.2						33/25		Silt (ML), Brown, Trace Sand
7L	17-18.5	26.0								Fat Clay (CH/CL), Brown, Silty, Trace Sand

GEOTECHNICS
Soil & Material Testing

Lab Data Summary

* Shelby Tube Samples Colored in Yellow
* Additional Atterberg Testing Requested Colored in Red

Job #:
23-1071

Andrews Engineering
Springfield, IL Ash Ponds

Sample No.	Depth (ft.)	Nat. Moist. (%)	Wet Density (PCF)	Dry Density (PCF)	Torvane (TSF)	Grad. -200 (%)	Silt/Clay (%)	Atterberg % (LL/PL)	Hydraulic Cond. (cm/sec)	USCS Visual Description
8L	3-3.5	15.5								Fat Clay (CH), Yellow Brown mottled Light Brown
8L	5.5-6	14.1								Lean Clay (CL), Yellow Brown mottled Brown
8L	7.5-8	27.2								Lean Clay (CL), Yellow Brown mottled Light Brown/Light Gray, Silty
8L	10.5-11	27.8								Lean Clay (CL), Yellow Brown mottled Light Brown/Light Gray, Silty
8L ST5	12-14'	23.8	126.4	102.1	0.33	69.80	56.6/13.2	26/19	$3.41x10^{-6}$	Sandy Silty Clay (CL-ML), Yellow Brown mottled Reddish Brown/Light Gray, Medium, Moist
8L	15.5-16	29.8								Sandy Lean Clay (CL), Light Gray, Silty
8L	17.5-18	33.5								Sandy Lean Clay (CL), Light Gray, Silty, With Organics
8L	20.5-21	32.3						39/26		Silt (ML), Gray, With Lean Clay (CL) Seams
8L	22.5-23	26.7						31/21		Lean Clay (CL), Gray, Silty
8U	2-3.5	24.8								Lean Clay (CL), Brown mottled Yellow Brown, Silty
8U	4.5-6	22.4								Lean Clay (CL), Brown mottled Yellow Brown, Silty
8U	7-8.5	23.8								Lean Clay (CL), Brown mottled Yellow Brown/Light Gray, Silty
8U ST8	9.5-11.5	24.0	125.7	101.4	0.55	90.60	68.1/22.5	48/21	$2.25x10^{-8}$	Lean Clay (CL), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist
8U	12-13.5	22.5								Fat Clay (CH), Light Gray mottled Yellow Brown
8U	14.5-16	23.9								Lean Clay (CL), Brown mottled Yellow Brown/Light Gray
8U	17-18.5	21.9								Lean Clay (CL), Brown mottled Yellow Brown Light Gray, Silty
8U ST16	19.5-21.5	25.7	127.1	101.1	0.80	95.50	79.7/15.8	45/19	$9.40x10^{-9}$	Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Stiff, Moist
8U	22-23.5	27.8								Lean Clay (CL), Brown, Silty
8U	24.5-26	31.0								Lean Clay (CL), Brown mottled Reddish Brown, Silty
8U	27-28.5	31.7								Lean Clay (CL), Brown mottled Reddish Brown, Silty
8U	29.5-31	29.5								Lean Clay (CL), Brown mottled Reddish Brown, Silty
8U	32-33.5	29.5								Lean Clay (CL), Brown mottled Reddish Brown, Silty
9L	2-2.5	23.6								Sandy Lean Clay (CL), Light Brown mottled Light Gray
9L	4.5-5	24.6								Lean Clay with Sand (CL), Light Brown mottled Light Gray/Yellow Brown, Silty
9L ST	7-9'	28.0	126.5	98.8	0.15	79.90	65.0/14.9	26/17	$2.55x10^{-6}$	Lean Clay with Sand (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Soft, Moist
9L	10.5-11	55.9								Silty Clayey Sand (SC-SM), Gray, With Organics
9L	13-13.5	27.2								Sandy Silt (ML), Gray, Clayey
9L	15.5-16	28.1						33/22		Lean Clay (CL), Gray, Silty
9L	18-18.5	28.6						46/21		Lean Clay (CL), Gray, Silty

GEOTECHNICS
Soil & Material Testing

Lab Data Summary

* Shelby Tube Samples Colored in Yellow
* Additional Atterberg Testing Requested Colored in Red

Job #:
23-1071

Andrews Engineering
Springfield, IL Ash Ponds

Sample No.	Depth (ft.)	Nat. Moist. (%)	Wet Density (PCF)	Dry Density (PCF)	Torvane (TSF)	Grad. -200 (%)	Silt/Clay (%)	Atterberg % (LL/PL)	Hydraulic Cond. (cm/sec)	USCS Visual Description
9U	2-3.5	19.8								Fat Clay (CH), Yellow Brown mottled Light Gray/Brown
9U	4.5-5	20.3								Fat Clay (CH), Brown mottled Light GrayYellow Brown
9U	7-8.5	19.9								Fat Clay (CH), Yellow Brown mottled Light Gray/Gray
9U	9.5-11	n/a								
9U	12-13.5	25.5								Fat Clay (CH), Yellow Brown mottled Light Gray/Gray
9U	14.5-16	22.2								Fat Clay (CH), Gray mottled Yellow Brown
9U	17-18.5	23.6								Lean Clay with Sand (CL), Brown mottled Light Brown/Light Gray
9U ST 16	19.5-21.5	22.4	125.2	102.3	0.95	96.00	78.6/17.4	46/22	$2.63x10^{-8}$	Lean Clay (CL), Gray mottled Light Gray, Silty, Stiff, Moist
9U	22-23.5	21.3								Lean Clay (CL), Brown mottled Light Gray/Yellow Brown
9U	24.5-26	25.2								Fat Clay (CH), Gray mottled Yellow Brown, Trace Coal
9U	26-28	23.3								Fat Clay (CH), Yellow Brown mottled Light Brown/Light Gray
9U	28-30	28.7								Fat Clay (CH), Yellow Brown mottled Light Gray
9U	30-32	29.4								Fat Clay (CH), Yellow Brown mottled Light Gray/Gray
9U	32-34	29.5								Fat Clay (CH/CL), Gray mottled Light Gray, Silty
9U	34-36	29.7								Sandy Lean Clay (CL), Gray mottled Yellow Brown, Silty
9U	36-38	29.5								Sandy Lean Clay (CL), Gray mottled Light Gray
9U	38-40	24.6								Sandy Lean Clay (CL), Gray mottled Yellow Brown, Silty
9CCR	2-3.5	15.0								Sandy Lean Clay (CL), Gray mottled Light Brown
9CCR	4.5-5	42.3								Silt (ML), Gray mottled Light Gray
9CCR	7-8.5	64.2								Silt (ML), Gray mottled Light Gray
9CCR ST8	9.5-11.5	23.2	126.9	103.0	0.72	94.50	66.6/27.9	46/21	$9.55x10^{-9}$	Lean Clay (CL), Yellow Brown mottled Light Gray/Gray, Silty, Trace Sand, Stiff, Moist
9CCR	12-13.5	46.9								Silt (ML), Gray mottled Light Gray
9CCR	14.5-16	41.4								Silt (ML), Gray mottled Light Gray
9CCR	17-18.5	41.0								Silt (ML), Gray mottled Light Gray
10CCR	2-3.5	25.9								Ash/Cinders, Gray
10CCR	4.5-5	13.8								Ash/Cinders, Gray
10CCR	7-8.5	28.7								Ash, Brown/Light Gray
10CCR	9.5-11	38.2								Ash, Brown/Light Gray
10CCR	12-13.5	58.1								Ash, Brown/Light Brown
10CCR	14.5-16	27.2								Ash/Cinders, Dark Gray mottled Light Brown
10CCR	17-18.5	52.9								Ash, Brown/Gray
10CCR	19.5-21	59.5								Ash/Cinders, Gray mottled Brown
10CCR	22-23.5	58.0								Ash/Cinders, Gray mottled Brown

GEOTECHNICS
Soil & Material Testing

Lab Data Summary

* Shelby Tube Samples Colored in Yellow
* Additional Atterberg Testing Requested Colored in Red

Job #:
23-1071

Andrews Engineering
Springfield, IL Ash Ponds

Sample No.	Depth (ft.)	Nat. Moist. (%)	Wet Density (PCF)	Dry Density (PCF)	Torvane (TSF)	Grad. -200 (%)	Silt/Clay (%)	Atterberg % (LL/PL)	Hydraulic Cond. (cm/sec)	USCS Visual Description
11U	2-3.5	18.0								Sandy Lean Clay (CL), Dark Brown
11U	4.5-5	20.4								Lean Clay with Sand (CL), Yellow Brown mottled Brown
11U	7-8.5	23.5								Fat Clay (CH), Light Gray mottled Yellow Brown, Trace Sand
11U ST8	9.5-11.5	21.8	129.9	106.7	0.80	92.50	52.4/40.1	36/20	$1.38x10^{-8}$	Lean Clay (CL), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist
11U	12-13.5	23.2								Fat Clay (CH), Yellow Brown mottled Light Gray/Gray, Trace Sand
11U	14.5-16	20.7								Lean Clay (CL), Brown mottled Yellow Brown
11U	17-18.5	28.6								Lean Clay (CL), Brown mottled Light Brown
11U ST16	19.5-21.5	25.7	123.1	97.9	0.50	95.90	66.8/29.1	48/21	$3.04x10^{-7}$	Lean Clay (CL), Brown mottled Yellow Brown, Silty, Stiff, Moist
11U	22-23.5	25.8								Fat Clay (CH), Yellow Brown mottled Brown
11U	24.5-26	28.3						34/21		Lean Clay (CL), Yellow Brown mottled Brown, Silty
11U	27-28.5	25.9								Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty
12L	3.5-4	14.5								Fat Clay (CH), Brown mottled Light Brown
12L	5.5-6	17.4								Fat Clay (CH), Brown mottled Light Brown/Yellow Brown
12L	8.5-9	23.2								Fat Clay (CH/CL), Yellow Brown mottled Light Gray
12L	11.5-12	24.5								Fat Clay (CH), Brown mottled Light Gray/Yellow Brown
12L	14-14.5	24.5								Lean Clay (CL), Light Gray mottled Yellow Brown/Gray
12L ST	14.5-16	23.2	127.7	103.6	0.55	87.10	71.6/15.5	30/19	$9.69x10^{-7}$	Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist
12L	19-19.5	22.9								Lean Clay (CL), Light Gray mottled Yellow Brown
12L	20-20.5	10.0								Sandy Lean Clay (CL), Light Gray mottled Yellow Brown
12L	23-23.5	13.0								Lean Clay (CL), Light Gray mottled Yellow Brown, Silty
12U	2-3.5	19.0								Lean Clay (CL), Brown, Silty
12U	4.5-5	17.1								Lean Clay (CL), Brown mottled Light Brown/Reddish Brown, Black Oxidation, Silty
12U	7-8.5	20.0								Lean Clay (CL), Light Brown mottled Yellow Brown, Silty
12U ST8	9.5-11.5	21.8	129.5	106.2	0.75	95.20	69.6/25.6	45/22	$3.13x10^{-9}$	Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Stiff, Moist
12U	12-13.5	17.3								Lean Clay (CL), Brown mottled Yellow Brown/Light Gray, Silty
12U	14.5-16	15.2								Lean Clay (CL), Brown, With Lime Fines, Trace Gravel
12U	17-18.5	18.9								Lean Clay (CL), Brown, With Ash/Coal
12U ST16	19.5-21.5	21.6	123.3	101.4	0.95	96.10	73.0/23.1	42/22	$1.03x10^{-8}$	Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Stiff, Moist
12U	22-23.5	25.6								Lean Clay (CL), Brown mottled Reddish Brown, Silty
12U	24.5-26	25.8								Lean Clay (CL), Light Brown mottled Yellow Brown, Reddish Oxidation, Silty
12U	27-28.5	25.2								Lean Clay (CL), Light Gray mottled Yellow Brown/Light Brown, Reddish Oxidation, Silty
13L	2-3.5	15.9								Lean Clay (CL), Brown
13L	4.5-5	17.4								Lean Clay (CL), Brown
13L	7-8.5	19.3								Lean Clay (CL), Brown mottled Yellow Brown
13L	9.5-11	19.6								Lean Clay (CL), Brown mottled Yellow Brown, Silty
13L	12-13.5	23.5								Lean Clay (CL), Brown mottled Reddish Brown
13L	14.5-16	27.4								Fat Clay (CH), Light Gray mottled Yellow Brown/Brown, Black Oxidation

GEOTECHNICS
Soil & Material Testing

Lab Data Summary

* Shelby Tube Samples Colored in Yellow
* Additional Atterberg Testing Requested Colored in Red

Job #:
23-1071

Andrews Engineering
Springfield, IL Ash Ponds

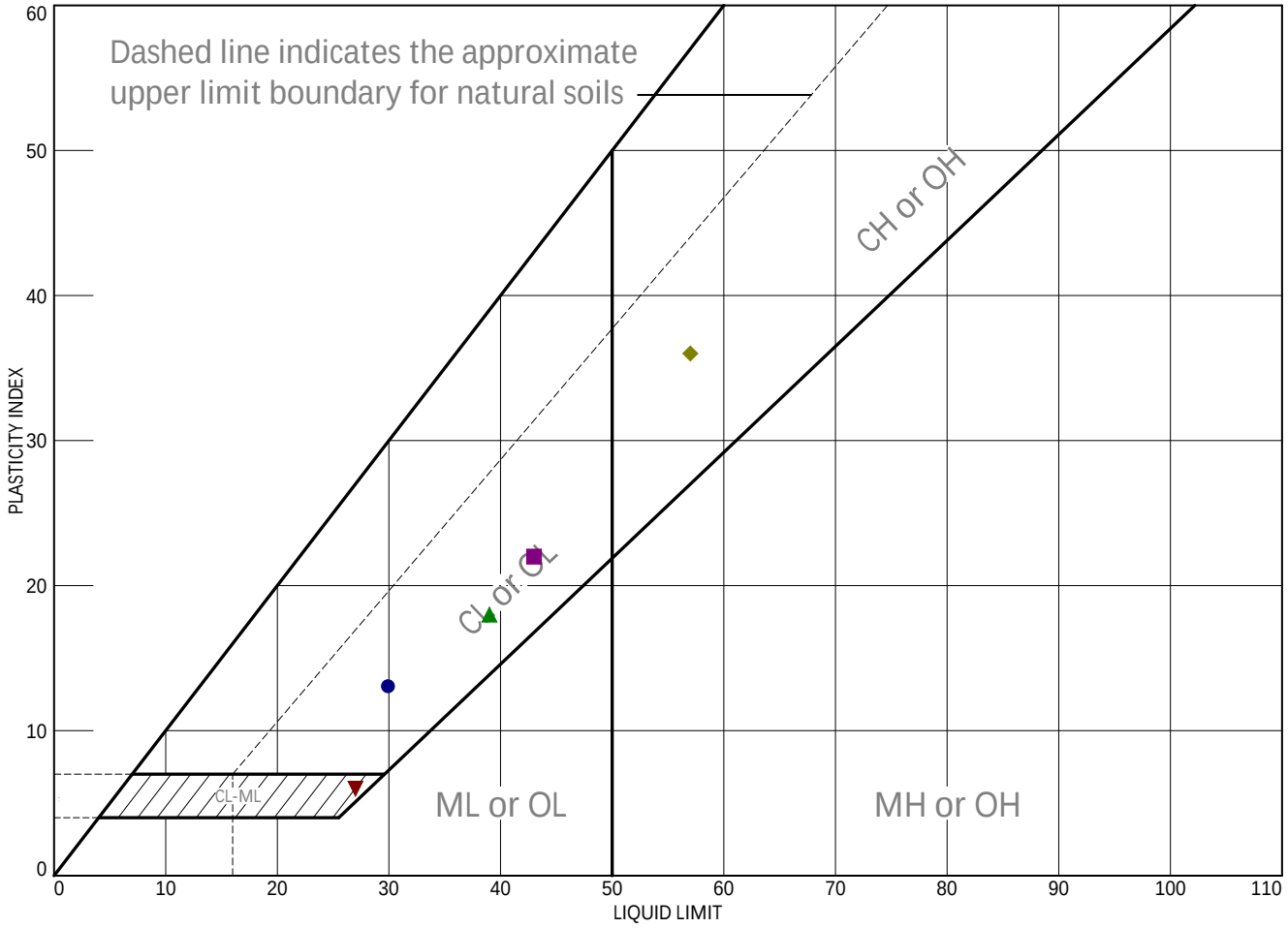
Sample No.	Depth (ft.)	Nat. Moist. (%)	Wet Density (PCF)	Dry Density (PCF)	Torvane (TSF)	Grad. -200 (%)	Silt/Clay (%)	Atterberg % (LL/PL)	Hydraulic Cond. (cm/sec)	USCS Visual Description
13BN	2-3.5	18.6								Lean Clay (CL), Light Brown mottled Reddish Brown/Light Gray, Silty
13BN	4.5-5	21.1								Lean Clay (CL), Light Brown mottled Reddish Brown
13BN	7-8.5	15.5								Lean Clay (CL), Light Brown mottled Reddish Brown, Silty
13BN ST7	8.5-10.5	18.4	132.2	111.6	0.95	90.90	74.9/16.0	34/20	$8.84x10^{-9}$	Lean Clay (CL), Yellow Brown, Silty, Trace Sand, Stiff, Moist
13BS	2-3.5	16.0								Lean Clay (CL), Brown mottled Reddish Brown, Silty
13BS	4.5-5	15.5								Lean Clay (CL), Brown mottled Reddish Brown, Silty
13BS	7-8.5	19.1								Lean Clay (CL), Brown mottled Light Brown/Light Gray
13BS ST7	8.5-10.5	21.1	127.5	105.3	0.95	94.90	78.6/16.3	52/25	$2.32x10^{-8}$	Fat Clay (CH), Gray mottled Light Gray, Silty, Trace Sand, Stiff, Moist
13LF	2-3.5	12.4								Lean Clay (CL), Brown mottled Yellow Brown, Silty
13LF	4.5-5	22.3								Lean Clay (CL), Light Brown mottled Yellow Brown/Light Gray, With Fat Seams
13LF	7-8.5	21.0								Lean Clay (CL), Light Brown mottled Yellow Brown/Light Gray, With Fat Seams, Over Light Gray Ash
13LF	9.5-11	21.4								Ash, Light Gray
13LF	12-13.5	21.1								Ash, Light Gray
13LF	14.5-16	19.1								Ash, Light Gray
13LF	17-18.5	20.9								Lean Clay (CL), Light Brown mottled Reddish Brown/Light Gray, Over Light Gray Ash
13LF	19.5-21	21.6								Ash, Yellow Brown mottled Light Gray
13LF	22-23.5	24.8								Ash, Yellow Brown
13LF	24.5-26	28.3								Ash, Yellow Brown

GEOTECHNICS
Soil & Material Testing

Lab Data Summary

* Shelby Tube Samples Colored in Yellow
* Additional Atterberg Testing Requested Colored in Red

LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
Lean Clay (CL), Gray, Silty, Trace Sand, Medium, Moist	30	17	13	98.2	85.7	CL
Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Stiff, Moist	43	21	22	99.8	97.6	CL
Lean Clay with Sand (CL), Gray, Silty, Medium, Moist	39	21	18	99.6	84.4	CL
Fat Clay (CH), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist	57	21	36	98.1	91.7	CH
Silty Clay (CL-ML), Yellow Brown mottled Light Gray, Trace Sand, Medium, Moist	27	21	6	98.3	87.7	CL-ML

Project No. 23-1071 Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Location: Boring 1	Depth: 24½-26½ ft.	Sample Number:
Location: Boring 1L	Depth: 22-24 ft.	Sample Number: 18
Location: Boring 1 LL	Depth: 14½-16½ ft.	Sample Number: 12
Location: Boring 2	Depth: 22-24 ft.	Sample Number: 8
Location: Boring 2L	Depth: 7-9 ft.	Sample Number: 6

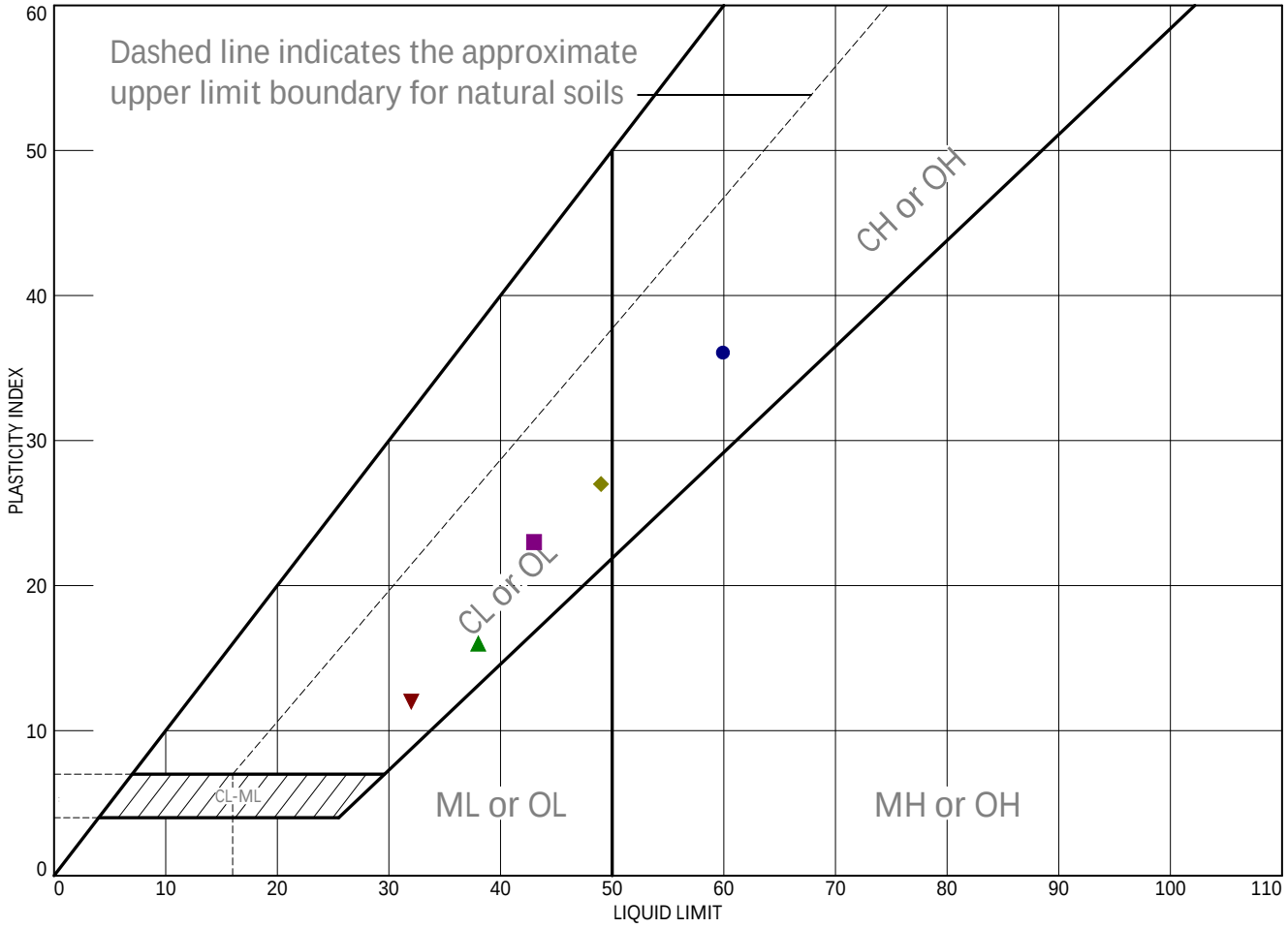
Remarks:
- Natural Moisture = 27.9%
- Natural Moisture = 30.7%
- Natural Moisture = 24.7%
- Natural Moisture = 26.8%
- Natural Moisture = 25.5%

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

Figure A-1

Tested By: ○ DAW □ MAS △ DAW ◇ BRH ▽ DAW

LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● Fat Clay (CH), Light Gray mottled Yellow Brown, Black Oxidation, Silty, Stiff, Moist	60	24	36	99.3	98.1	CH
■ Lean Clay (CL), Gray mottled Yellow Brown, Silty, Stiff, Moist	43	20	23	98.5	95.0	CL
▲ Lean Clay with Sand (CL), Yellow Brown mottled Light Gray/Gray, Silty, Stiff, Moist	38	22	16	90.3	81.1	CL
◆ Lean Clay (CL/CH), Yellow Brown mottled Light Gray, Silty, Stiff, Moist	49	22	27	99.5	97.2	CL
▼ Lean Clay (CL), Brown mottled Yellow Brown/Light Gray, Silty, Trace Sand, Medium, Moist	32	20	12	97.4	87.9	CL

Project No. 23-1071 Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

● Location: Boring 3 ST8	Depth: 9½-11½ ft.	Sample Number: 8
■ Location: Boring 3 ST16	Depth: 19½-21½ ft.	Sample Number: 16
▲ Location: Boring 3U ST8	Depth: 9½-11 ft.	Sample Number: 8
◆ Location: Boring 4	Depth: 19½-21½ ft.	Sample Number:
▼ Location: Boring 4L	Depth: 12-14 ft.	Sample Number: 10

Remarks:

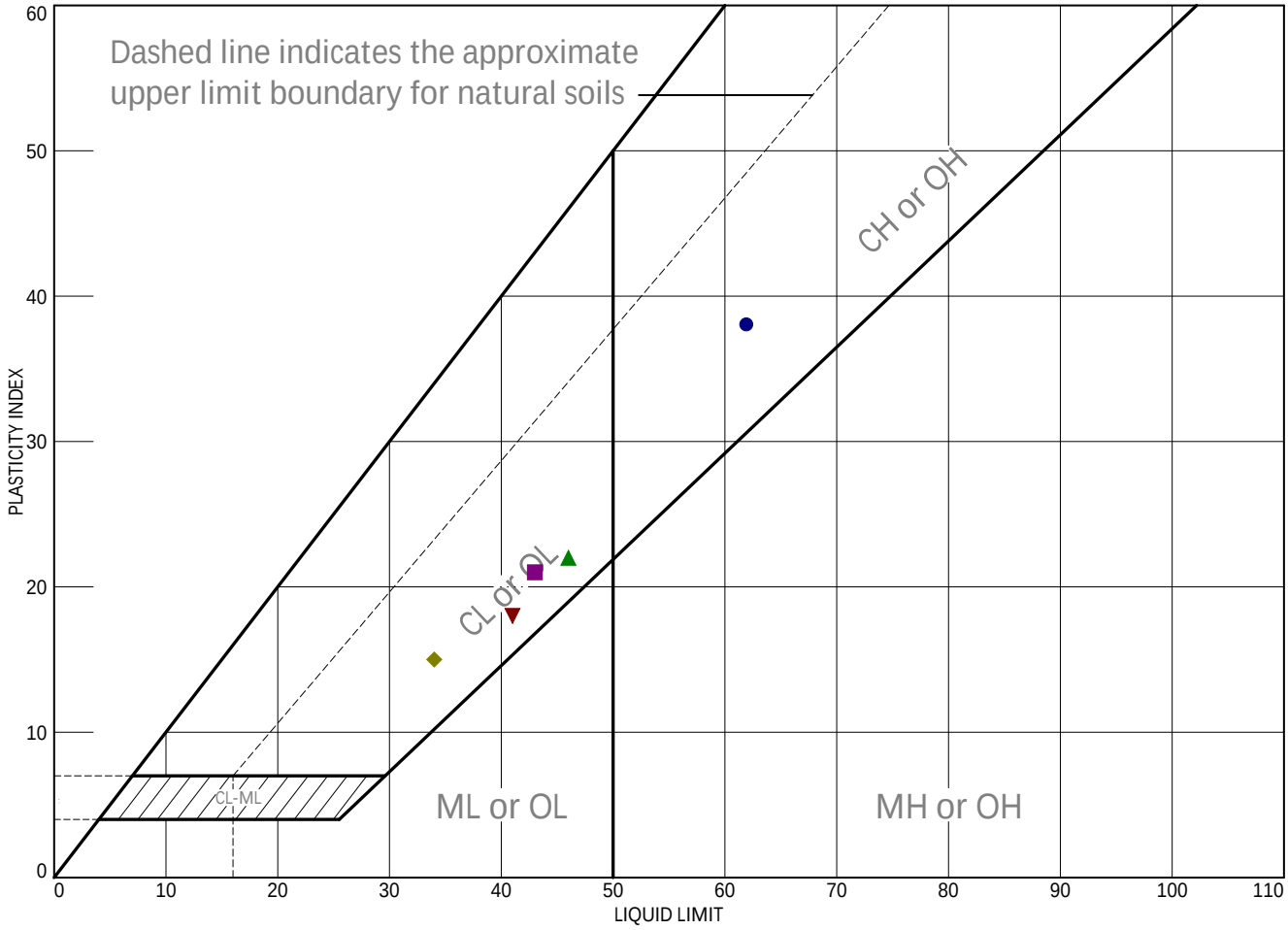
- ● Natural Moisture = 25.8%
- ■ Natural Moisture = 25.8%
- ▲ Natural Moisture = 21.3%
- ◆ Natural Moisture = 28.3%
- ▼ Natural Moisture = 27.4%

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

Figure A-2

Tested By: ○ DAW □ BRH △ DAW ◇ DAW ▽ MAS

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Fat Clay (CH), Yellow Brown mottled Light Gray, Silty, Stiff, Moist	62	24	38	99.4	97.1	CH
■	Lean Clay (CL), Light Gray mottled Gray/Yellow Brown, Silty, Trace Sand, Medium, Moist	43	22	21	98.7	90.2	CL
▲	Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist	46	24	22	98.3	94.6	CL
◆	Lean Clay (CL), Gray/Greenish Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist	34	19	15	99.0	90.2	CL
▼	Lean Clay (CL), Light Gray mottled Reddish Brown, Silty, Trace Sand, Medium, Moist	41	23	18	99.6	91.6	CL

Project No. 23-1071 Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

● Location: Boring 4U	Depth: 27-29 ft.	Sample Number: 22
■ Location: Boring 5	Depth: 24½-26½ ft.	Sample Number: 10
▲ Location: Boring 5L	Depth: 9½-11 ft.	Sample Number:
◆ Location: Boring 6	Depth: 17-19 ft.	Sample Number: 8
▼ Location: Boring 6L	Depth: 7½-9 ft.	Sample Number: ST1

Remarks:

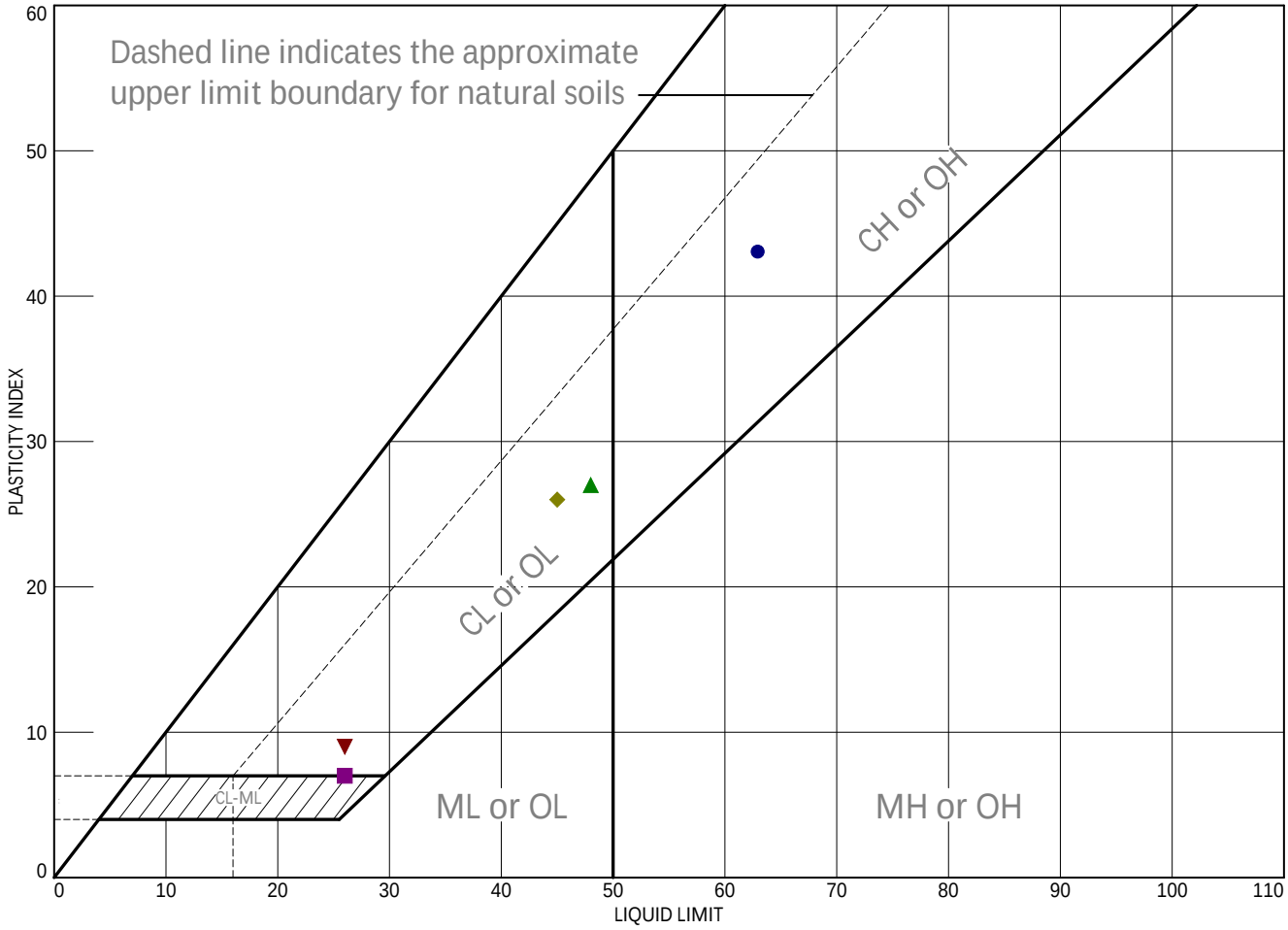
● Natural Moisture = 26.9%
■ Natural Moisture = 24.3%
▲ Natural Moisture = 28.8%
◆ Natural Moisture = 21.9%
▼ Natural Moisture = 26.6%

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

Figure A-3

Tested By: ○ MAS □ DAW △ DAW ◇ DAW ▽ BRH

LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● Fat Clay (CH), Brown/Yellow Brown mottled Light Gray, Silty, Stiff, Moist	63	20	43	98.8	97.7	CH
■ Sandy Silty Clay (CL-ML), Yellow Brown mottled Reddish Brown/Light Gray, Medium, Moist	26	19	7	99.8	69.8	CL-ML
▲ Lean Clay (CL), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist	48	21	27	96.6	90.6	CL
◆ Lean Clay (CL), Light Gray Mottled Yellow Brown, Silty, Stiff, Moist	45	19	26	99.3	95.5	CL
▼ Lean Clay with Sand (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Soft, Moist	26	17	9	98.4	79.9	CL

Project No. 23-1071 Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

● Location: Boring 7	Depth: 19½-21½ ft.	Sample Number: 7
■ Location: Boring 8L	Depth: 12-14 ft.	Sample Number: 5
▲ Location: Boring 8U ST8	Depth: 9½-11½ ft.	Sample Number: 8
◆ Location: Boring 8U ST16	Depth: 19½-21½ ft.	Sample Number: 16
▼ Location: Boring 9L	Depth: 7½-9 ft.	Sample Number:

Remarks:

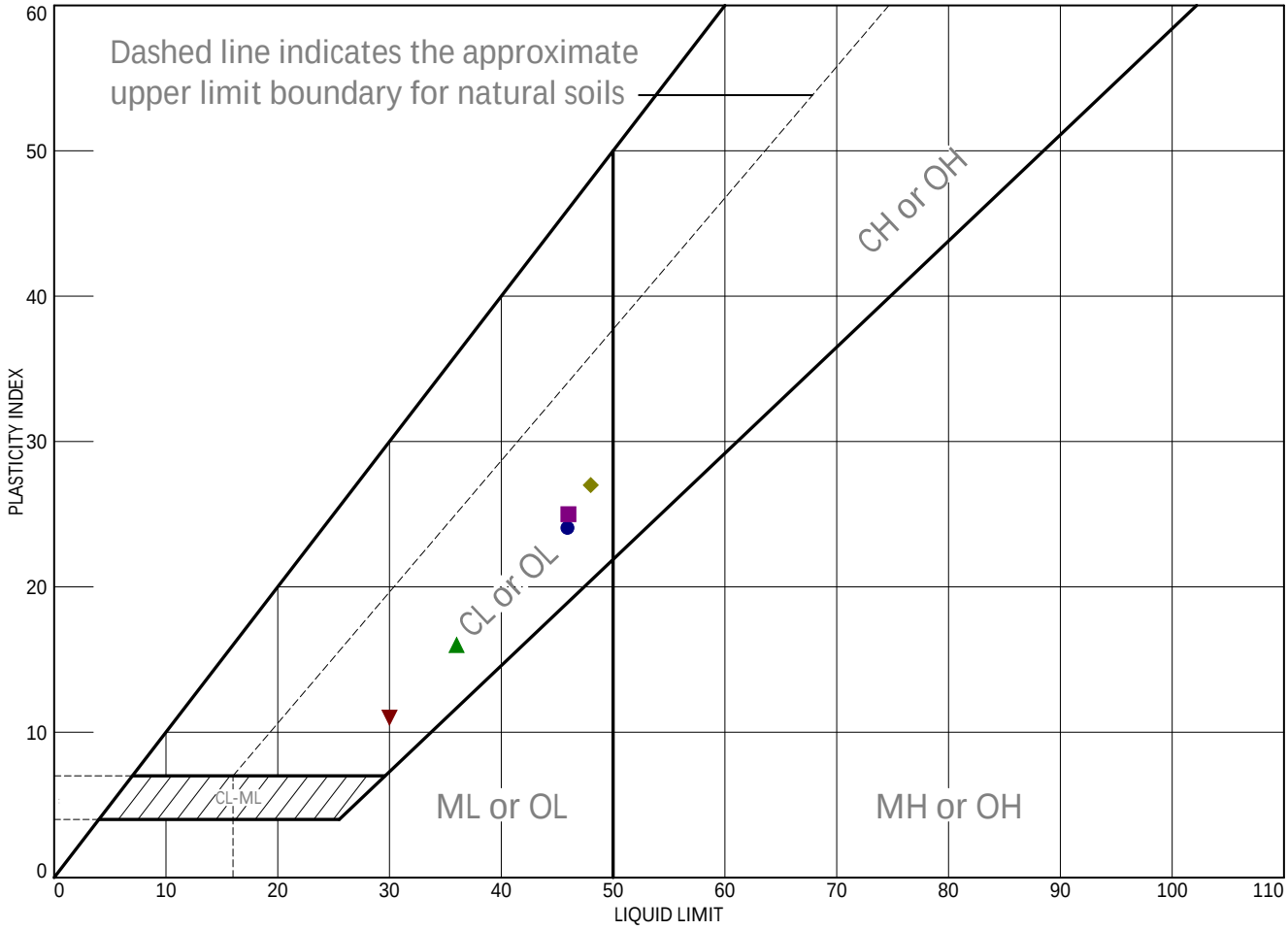
● Natural Moisture = 25.8%
■ Natural Moisture = 23.8%
▲ Natural Moisture = 24.0%
◆ Natural Moisture = 25.7%
▼ Natural Moisture = 28.0%

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

Figure A-4

Tested By: ○ DJS □ DAW △ BRH ◇ BRH ▽ DAW

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Lean Clay (CL), Gray mottled Light Gray, Silty, Stiff, Moist	46	22	24	99.7	96.0	CL
■	Lean Clay (CL), Yellow Brown mottled Light Gray/Gray, Silty, Trace Sand, Stiff, Moist	46	21	25	99.2	94.5	CL
▲	Lean Clay (CL), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist	36	20	16	98.2	92.5	CL
◆	Lean Clay (CL), Brown mottled Yellow Brown, Silty, Stiff, Moist	48	21	27	99.2	95.9	CL
▼	Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist	30	19	11	99.8	87.1	CL

Project No. 23-1071 Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

● Location: Boring 9U ST16	Depth: 19½-21½ ft.	Sample Number: 16
■ Location: Boring 9 CCR ST8	Depth: 9½-11½ ft.	Sample Number: 8
▲ Location: Boring 11U ST8	Depth: 9½-11½ ft.	Sample Number:
◆ Location: Boring 11U ST16	Depth: 19½-21½ ft.	Sample Number:
▼ Location: Boring 12L	Depth: 14½-16 ft.	Sample Number:

Remarks:

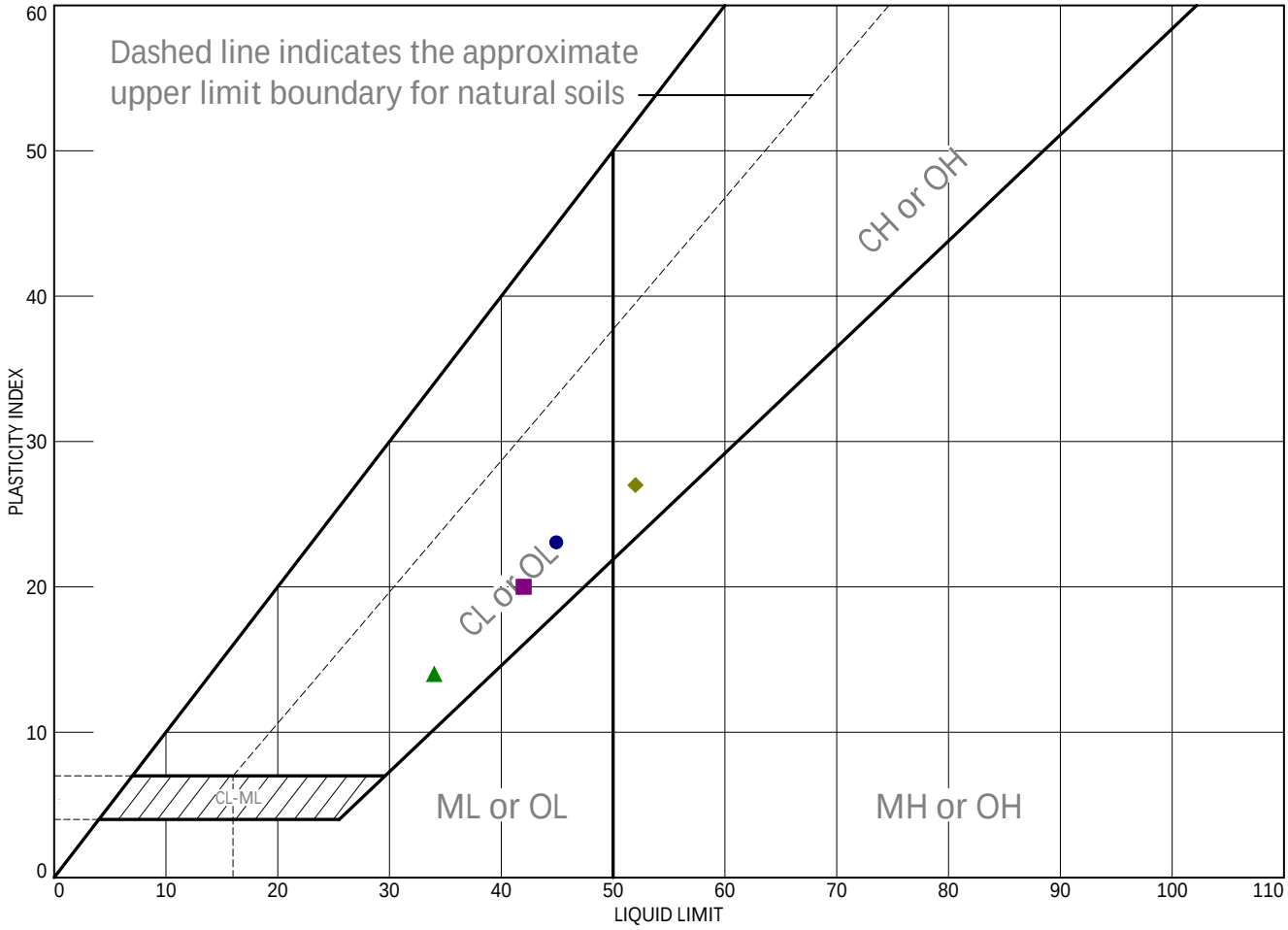
● Natural Moisture = 22.4%
■ Natural Moisture = 23.2%
▲ Natural Moisture = 21.8%
◆ Natural Moisture = 25.7%
▼ Natural Moisture = 23.2%

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

Figure A-5

Tested By: ○ NPP □ NPP △ MAS ◇ BRH ▽ DAW

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Stiff, Moist	45	22	23	99.6	95.2	CL
■	Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Stiff, Moist	42	22	20	99.3	96.1	CL
▲	Lean Clay (CL), Yellow Brown, Silty, Trace Sand, Stiff, Moist	34	20	14	99.9	90.9	CL
◆	Fat Clay (CH), Gray mottled Light Gray, Silty, Trace Sand, Stiff, Moist	52	25	27	99.3	94.9	CH

Project No. 23-1071 Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

●Location: Boring 12U ST8	Depth: 9½-11½ ft.	Sample Number: 8
■Location: Boring 12U ST16	Depth: 19½-21½ ft.	Sample Number: 16
▲Location: Boring 13 BN ST7	Depth: 8½-10½ ft.	Sample Number: 7
◆Location: Boring 13 BS ST7	Depth: 8½-10½ ft.	Sample Number: 7

Remarks:

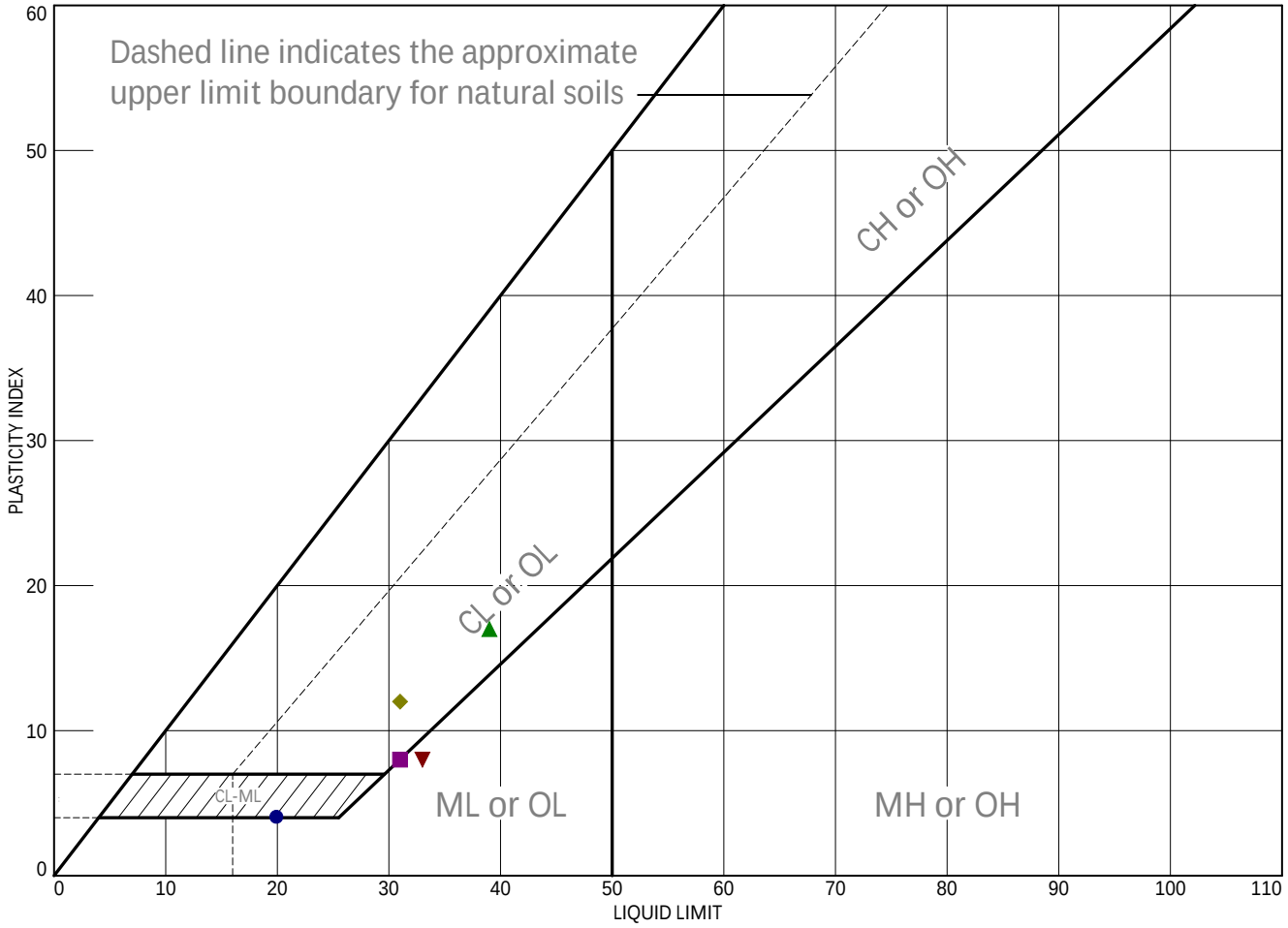
●Natural Moisture = 21.8%
■Natural Moisture = 21.6%
▲Natural Moisture = 18.4%
◆Natural Moisture = 21.1%

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

Figure A-6

Tested By: ○DAW □DAW △MAS ◇MAS

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Sandy Silty Clay (CL-ML), Yellow Brown mottled Light Gray, Moist	20	16	4			CL-ML
■	Lean Clay (CL/ML), Yellow Brown mottled Light Gray, Black Oxidation	31	23	8			CL
▲	Lean Clay (CL), Light Gray mottled Yellow Brown, Silty	39	22	17			CL
◆	Lean Clay (CL), Gray, Trace Organics	31	19	12			CL
▼	Silt (ML), Brown, Trace Sand	33	25	8			ML

Project No. 23-1071 Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

●	Location: Boring 2L	Depth: 14½-16	Sample Number:
■	Location: Boring 4L	Depth: 17-18½ ft.	Sample Number:
▲	Location: Boring 5L	Depth: 17-17½ ft.	Sample Number:
◆	Location: Boring 6L	Depth: 17½-19 ft.	Sample Number: 7
▼	Location: Boring 7L	Depth: 15-16½ ft.	Sample Number: 6

Remarks:

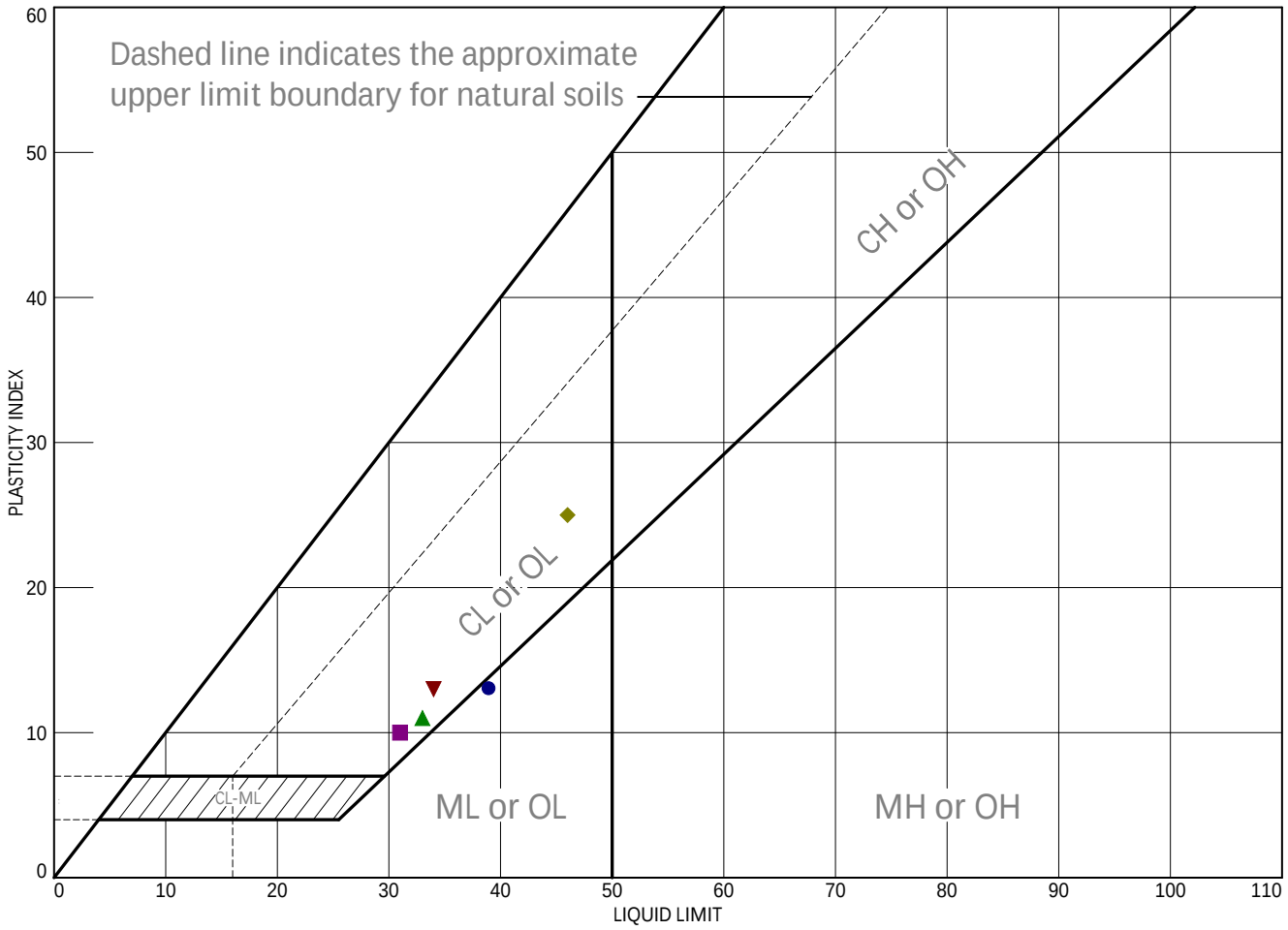
- ● Natural Moisture = 23.6%
- ■ Natural Moisture = 27.4%
- ▲ Natural Moisture = 28.3%
- ◆ Natural Moisture = 35.9%
- ▼ Natural Moisture = 29.2%

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

Figure A-7

Tested By: DAW Checked By: NAS

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Silt (ML), Gray, With Lean Clay (CL) Seams	39	26	13			ML
■	Lean Clay (CL), Gray, Silty	31	21	10			CL
▲	Lean Clay (CL), Gray, Silty	33	22	11			CL
◆	Lean Clay (CL), Gray, Silty	46	21	25			CL
▼	Lean Clay (CL), Yellow Brown mottled Brown, Silty	34	21	13			CL

Project No. 23-1071 Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

● Location: Boring 8L Depth: 20½-21 ft.
■ Location: Boring 8L Depth: 22½-23 ft.
▲ Location: Boring 9L Depth: 15½-16 ft.
◆ Location: Boring 9L Depth: 18-18½ ft.
▼ Location: Boring 11U Depth: 24½-26 ft.

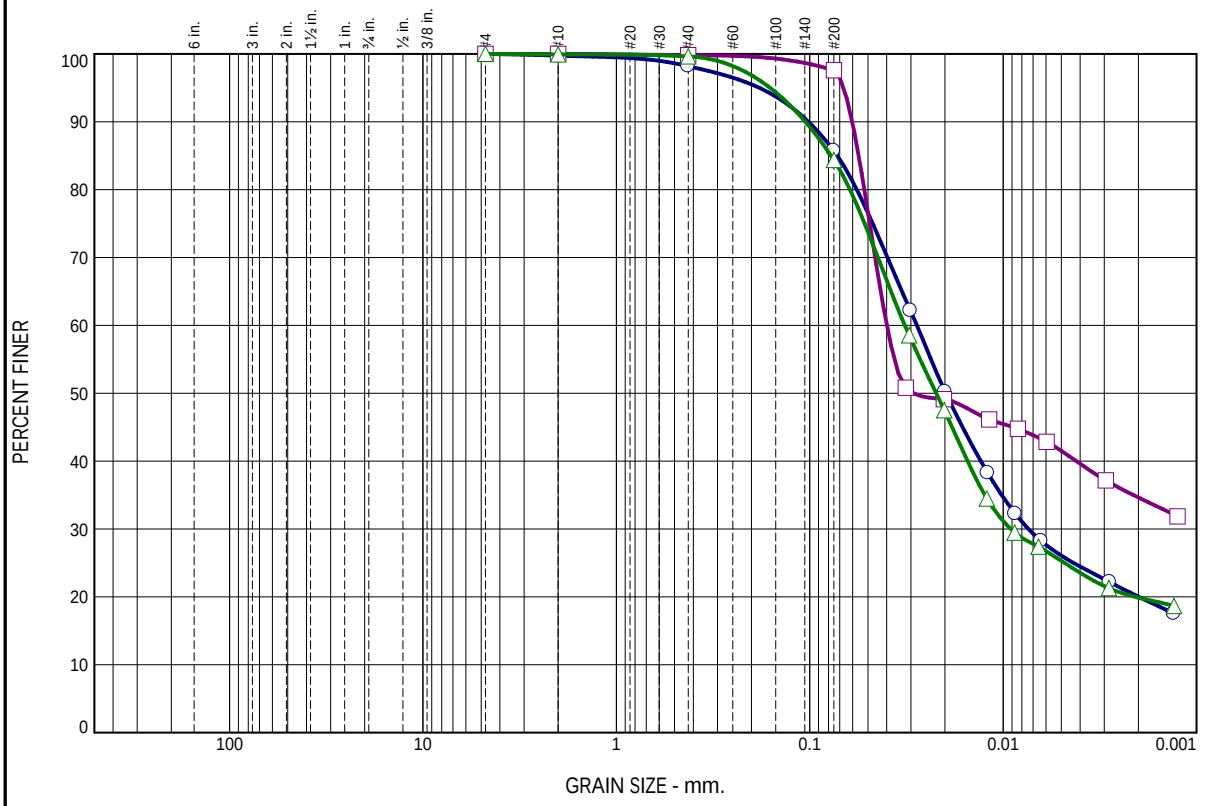
Remarks:
● Natural Moisture = 32.3%
■ Natural Moisture = 26.7%
▲ Natural Moisture = 28.1%
◆ Natural Moisture = 28.6%
▼ Natural Moisture = 28.3%

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

Figure A-8

Tested By: DAW Checked By: NAS

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PL	PI
○	0.0	0.0	14.3	65.7	20.0	CL	30	17	13
□	0.0	0.0	2.4	63.0	34.6	CL	43	21	22
△	0.0	0.0	15.6	64.5	19.9	CL	39	21	18

SIEVE inches size	PERCENT FINER ○	□	△
GRAIN SIZE			
D_{60}	0.0279	0.0399	0.0322
D_{30}	0.0074		0.0091
D_{10}			
COEFFICIENTS			
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#4	100.0	100.0	100.0
#10	99.7	100.0	99.9
#40	98.2	99.8	99.6
#200	85.7	97.6	84.4

Material Description

○ Lean Clay (CL), Gray, Silty, Trace Sand, Medium, Moist

□ Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Stiff, Moist

△ Lean Clay with Sand (CL), Gray, Silty, Medium, Moist

REMARKS:

○ Natural Moisture = 27.9%

□ Natural Moisture = 30.7%

△ Natural Moisture = 24.7%

○ Location: Boring 1 Depth: 24½-26½ ft. Sample Number:

□ Location: Boring 1L Depth: 22-24 ft. Sample Number: 18

△ Location: Boring 1 LL Depth: 14½-16½ ft. Sample Number: 12

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

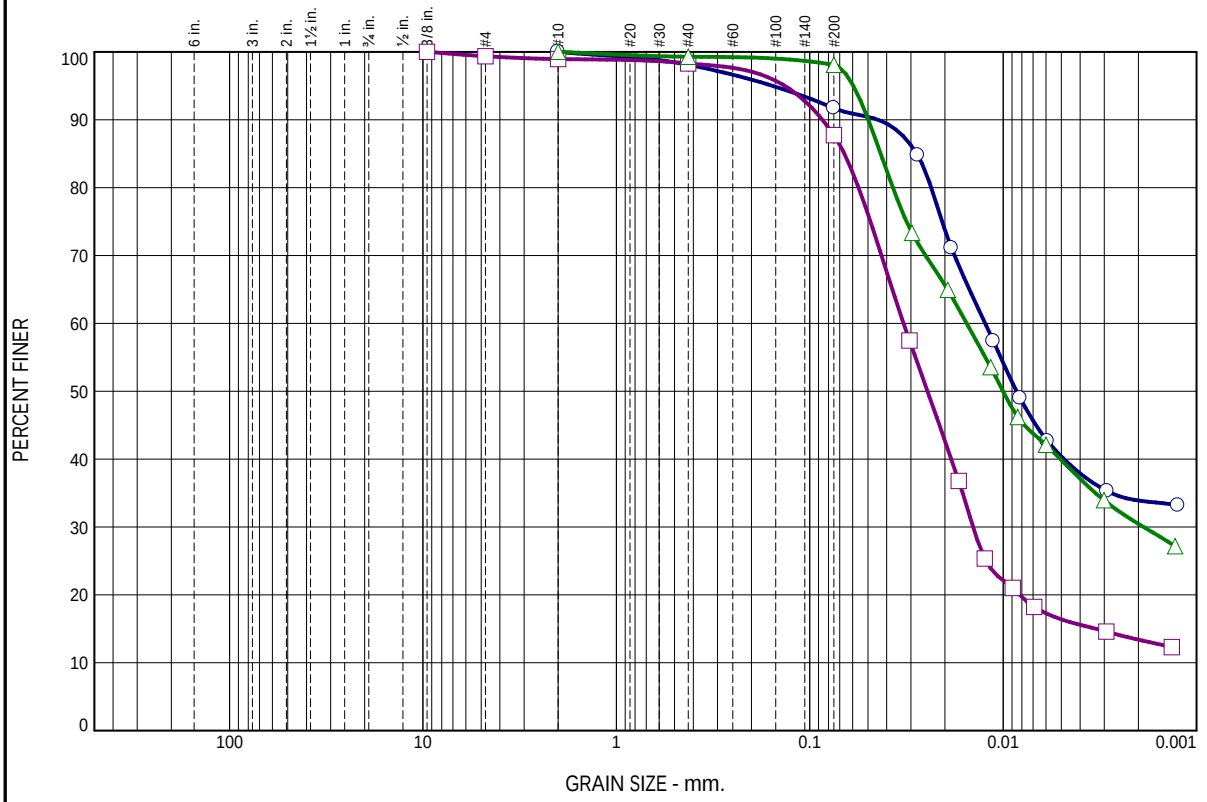
Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Project No.: 23-1071 Figure S-1

Tested By: DAW / DJS

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PL	PI
○	0.0	0.0	8.3	57.8	33.9	CH	57	21	36
□	0.0	0.6	11.7	74.3	13.4	CL-ML	27	21	6
△	0.0	0.0	1.9	67.6	30.5	CH	60	24	36

SIEVE inches size	PERCENT FINER ○	□	△
3/8"		100.0	
GRAIN SIZE			
D_{60}	0.0124	0.0328	0.0154
D_{30}		0.0143	0.0019
D_{10}			
COEFFICIENTS			
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#4		99.4	
#10	100.0	98.9	100.0
#40	98.1	98.3	99.3
#200	91.7	87.7	98.1

Material Description

○ Fat Clay (CH), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist

□ Silty Clay (CL-ML), Yellow Brown mottled Light Gray, Trace Sand, Medium, Moist

△ Fat Clay (CH), Light Gray mottled Yellow Brown, Black Oxidation, Silty, Stiff, Moist

REMARKS:

○ Natural Moisture = 26.8%

□ Natural Moisture = 25.5%

△ Natural Moisture = 25.8%

○ Location: Boring 2 Depth: 22-24 ft. Sample Number: 8

□ Location: Boring 2L Depth: 7-9 ft. Sample Number: 6

△ Location: Boring 3 ST8 Depth: 9½-11½ ft. Sample Number: 8

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

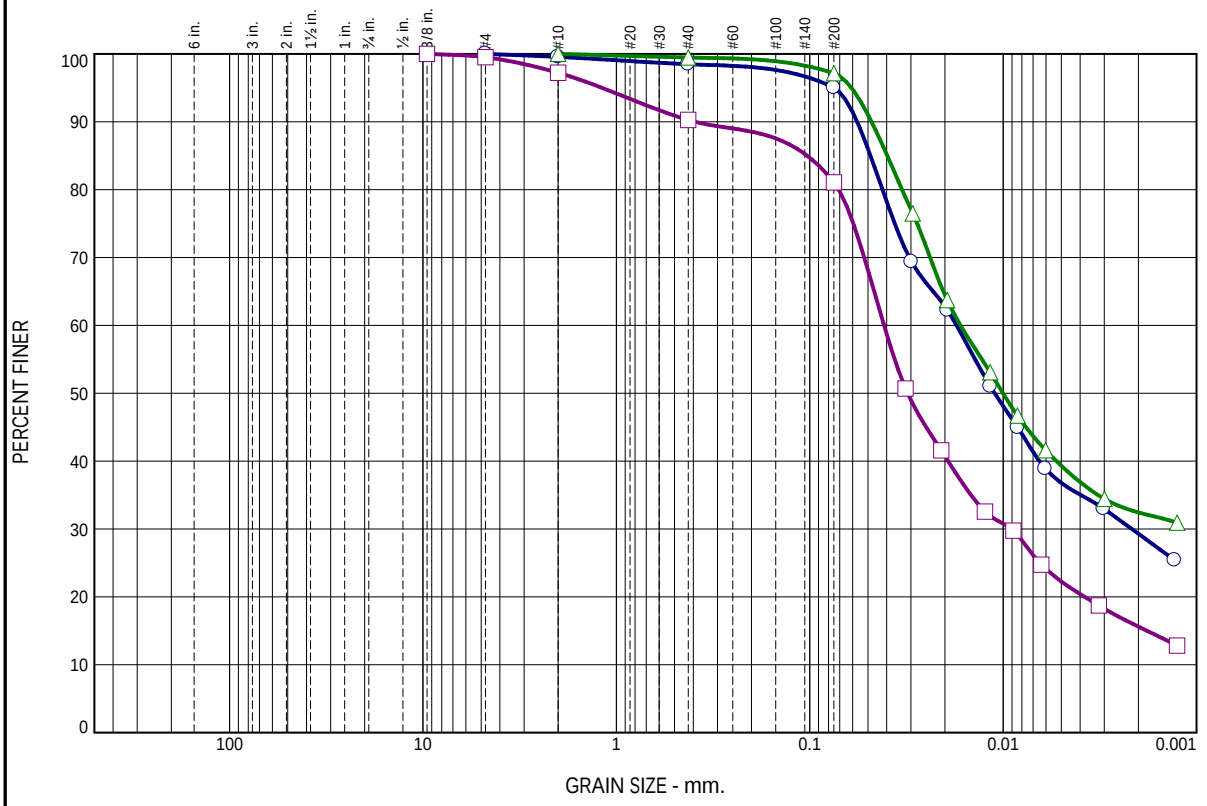
Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Project No.: 23-1071 Figure S-2

Tested By: ○ DAW □ DAW / DJS △ DAW

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PL	PI
○	0.0	0.0	5.0	65.7	29.3	CL	43	20	23
□	0.0	0.5	18.4	65.5	15.6	CL	38	22	16
△	0.0	0.0	2.8	64.8	32.4	CL	49	22	27

SIEVE inches size	PERCENT FINER ○	□	△
3/8"		100.0	
GRAIN SIZE			
D_{60}	0.0174	0.0413	0.0166
D_{30}	0.0022	0.0090	
D_{10}			
COEFFICIENTS			
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#4	100.0	99.5	
#10	99.6	97.2	100.0
#40	98.5	90.3	99.5
#200	95.0	81.1	97.2

Material Description

○ Lean Clay (CL), Gray mottled Yellow Brown, Silty, Stiff, Moist

□ Lean Clay with Sand (CL), Yellow Brown mottled Light Gray/Gray, Silty, Stiff, Moist

△ Lean Clay (CL/CH), Yellow Brown mottled Light Gray, Silty, Stiff, Moist

REMARKS:

○ Natural Moisture = 25.8%

□ Natural Moisture = 21.3%

△ Natural Moisture = 28.3%

○ Location: Boring 3 ST16 Depth: 19½-21½ ft. Sample Number: 16

□ Location: Boring 3U ST8 Depth: 9½-11 ft. Sample Number: 8

△ Location: Boring 4 Depth: 19½-21½ ft. Sample Number:

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Soil & Material Testing
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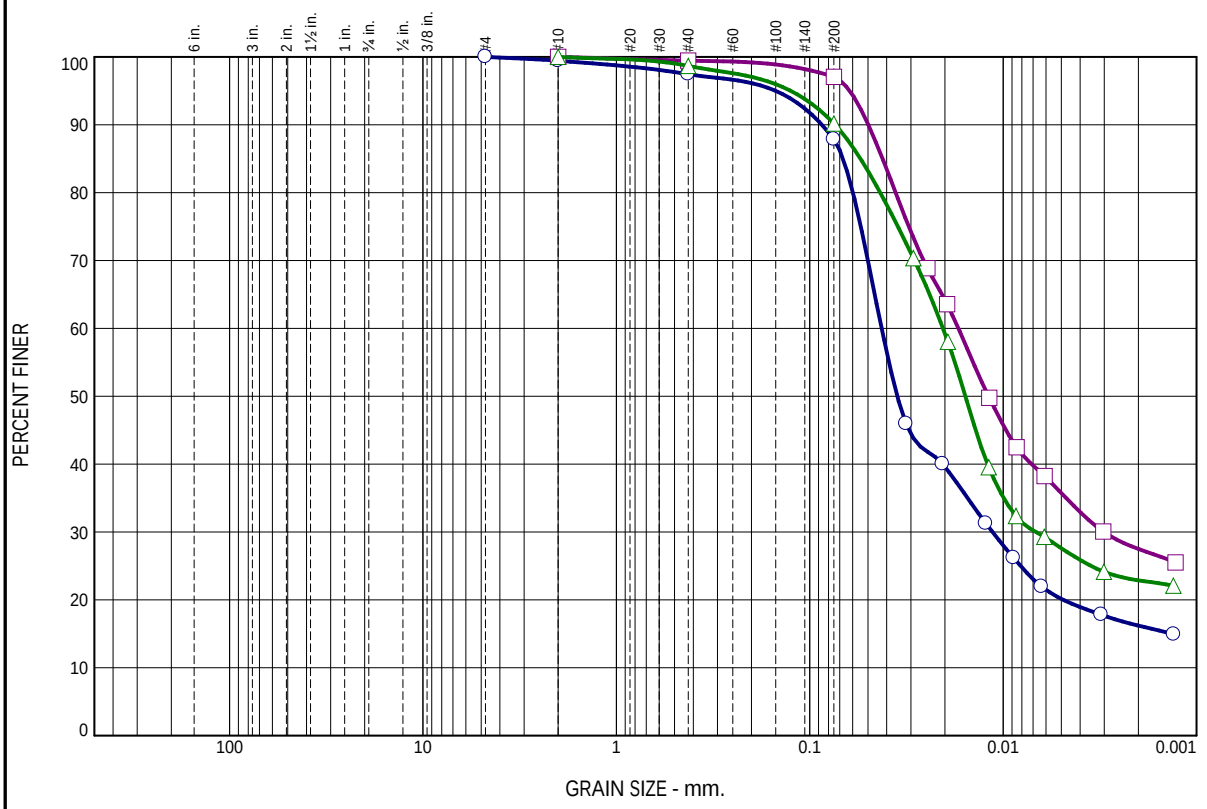
Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Project No.: 23-1071 Figure S-3

Tested By: ○ DAW □ DAW △ DAW / MAS

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PL	PI
○	0.0	0.0	12.1	71.7	16.2	CL	32	20	12
□	0.0	0.0	2.9	69.6	27.5	CH	62	24	38
△	0.0	0.0	9.8	67.3	22.9	CL	43	22	21

SIEVE inches size	PERCENT FINER ○	□	△
GRAIN SIZE			
D_{60}	0.0425	0.0170	0.0205
D_{30}	0.0114	0.0030	0.0068
D_{10}			
COEFFICIENTS			
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#4	100.0		
#10	99.4	100.0	100.0
#40	97.4	99.4	98.7
#200	87.9	97.1	90.2

Material Description

○ Lean Clay (CL), Brown mottled Yellow Brown/Light Gray, Silty, Trace Sand, Medium, Moist

□ Fat Clay (CH), Yellow Brown mottled Light Gray, Silty, Stiff, Moist

△ Lean Clay (CL), Light Gray mottled Gray/ Yellow Brown, Silty, Trace Sand, Medium, Moist

REMARKS:

○ Natural Moisture = 27.4%

□ Natural Moisture = 26.9%

△ Natural Moisture = 24.3%

○ Location: Boring 4L Depth: 12-14 ft. Sample Number: 10

□ Location: Boring 4U Depth: 27-29 ft. Sample Number: 22

△ Location: Boring 5 Depth: 24½-26½ ft. Sample Number: 10

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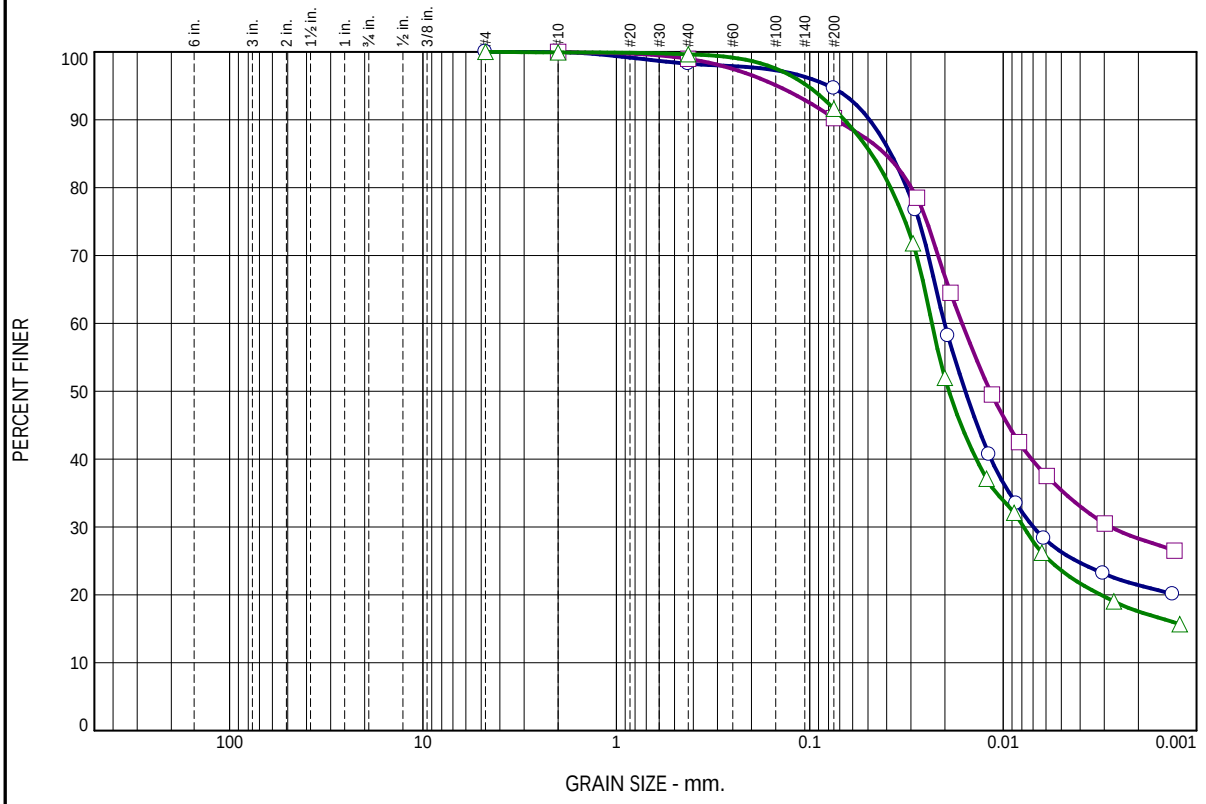
Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Project No.: 23-1071 Figure S-4

Tested By: ○ DAW / DJS □ DAW / DJS △ DAW

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PL	PI
○	0.0	0.0	5.4	73.2	21.4	CL	46	24	22
□	0.0	0.0	9.8	61.9	28.3	CL	34	19	15
△	0.0	0.0	8.4	74.1	17.5	CL	41	23	18

SIEVE inches size	PERCENT FINER ○	□	△
GRAIN SIZE			
D_{60}	0.0201	0.0163	0.0234
D_{30}	0.0070	0.0028	0.0078
D_{10}			
COEFFICIENTS			
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#4	100.0		100.0
#10	100.0	100.0	99.9
#40	98.3	99.0	99.6
#200	94.6	90.2	91.6

Material Description

○ Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist

□ Lean Clay (CL), Gray/Greenish Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist

△ Lean Clay (CL), Light Gray mottled Reddish Brown, Silty, Trace Sand, Medium, Moist

REMARKS:

○ Natural Moisture = 28.8%

□ Natural Moisture = 21.9%

△ Natural Moisture = 26.6%

○ Location: Boring 5L Depth: 9½-11 ft. Sample Number:

□ Location: Boring 6 Depth: 17-19 ft. Sample Number: 8

△ Location: Boring 6L Depth: 7½-9 ft. Sample Number: ST1

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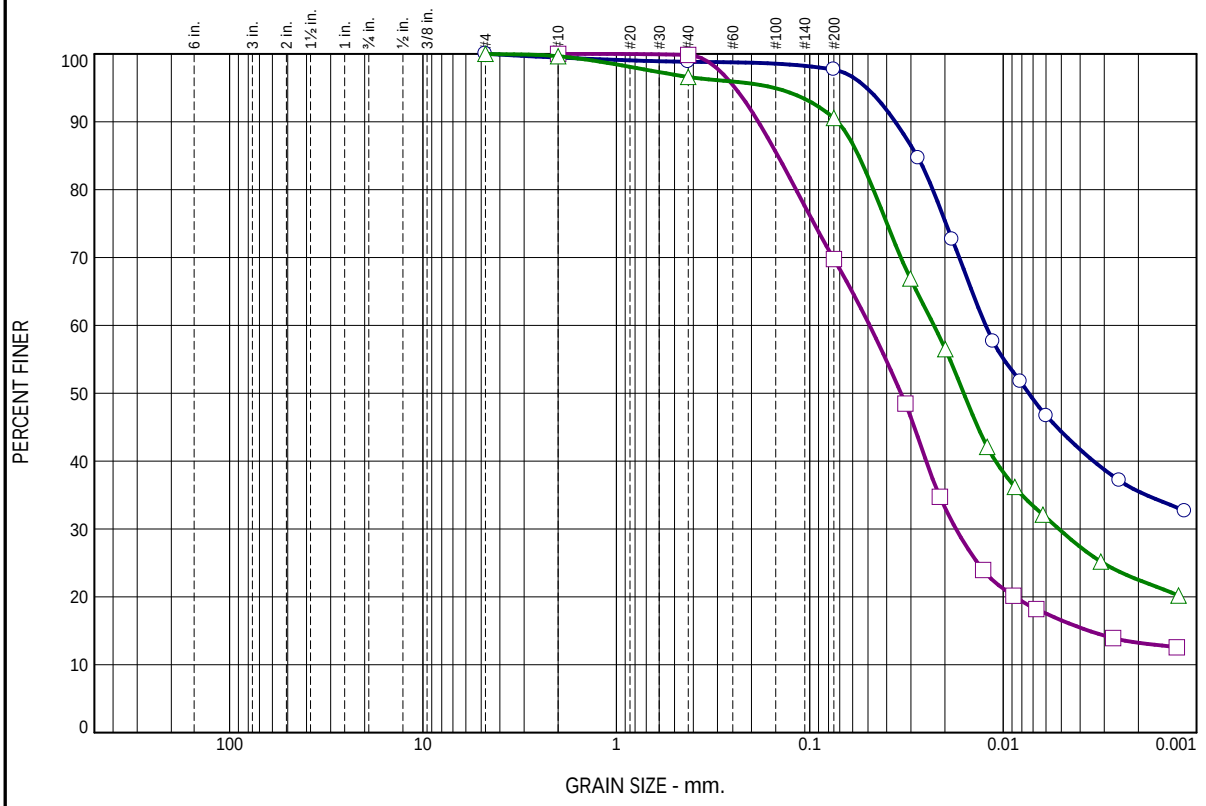
Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Project No.: 23-1071 Figure S-5

Tested By: DAW Checked By: NAS

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PL	PI
○	0.0	0.0	2.3	62.2	35.5	CH	63	20	43
□	0.0	0.0	30.2	56.6	13.2	CL-ML	26	19	7
△	0.0	0.0	9.4	68.1	22.5	CL	48	21	27

SIEVE inches size	PERCENT FINER ○	□	△
GRAIN SIZE			
D_{60}	0.0123	0.0491	0.0228
D_{30}		0.0175	0.0052
D_{10}			
COEFFICIENTS			
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#4	100.0		100.0
#10	99.5	100.0	99.6
#40	98.8	99.8	96.6
#200	97.7	69.8	90.6

Material Description

○ Fat Clay (CH), Brown/Yellow Brown mottled Light Gray, Silty, Stiff, Moist

□ Sandy Silty Clay (CL-ML), Yellow Brown mottled Reddish Brown/Light Gray, Medium, Moist

△ Lean Clay (CL), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist

REMARKS:

○ Natural Moisture = 25.8%

□ Natural Moisture = 23.8%

△ Natural Moisture = 24.0%

○ Location: Boring 7 Depth: 19½-21½ ft. Sample Number: 7

□ Location: Boring 8L Depth: 12-14 ft. Sample Number: 5

△ Location: Boring 8U ST8 Depth: 9½-11½ ft. Sample Number: 8

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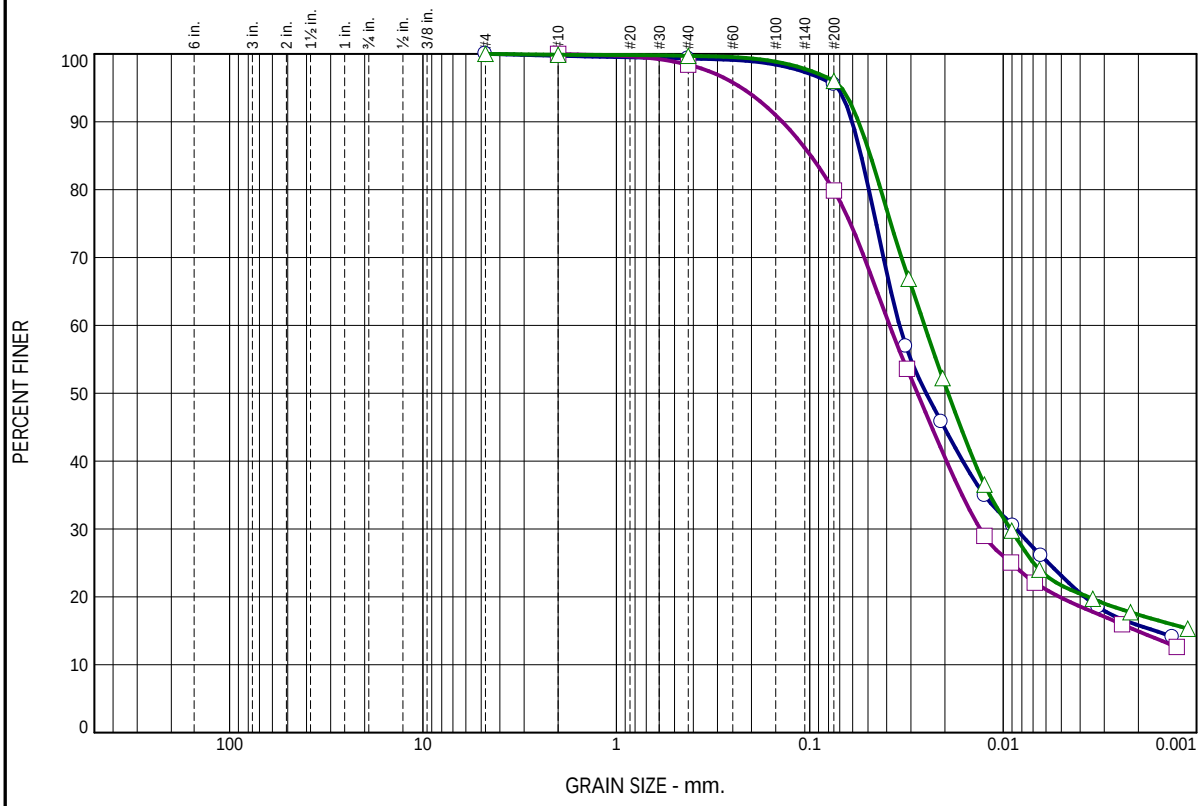
Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Project No.: 23-1071 Figure S-6

Tested By: DAW Checked By: NAS

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PL	PI
○	0.0	0.0	4.5	79.7	15.8	CL	45	19	26
□	0.0	0.0	20.1	65.0	14.9	CL	26	17	9
△	0.0	0.0	4.0	78.6	17.4	CL	46	22	24

SIEVE inches size	PERCENT FINER ○	□	△
GRAIN SIZE			
D_{60}	0.0343	0.0386	0.0255
D_{30}	0.0086	0.0131	0.0091
D_{10}			
COEFFICIENTS			
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#4	100.0		100.0
#10	99.7	100.0	99.9
#40	99.3	98.4	99.7
#200	95.5	79.9	96.0

Material Description

○ Lean Clay (CL), Light Gray Mottled Yellow Brown, Silty, Stiff, Moist

□ Lean Clay with Sand (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Soft, Moist

△ Lean Clay (CL), Gray mottled Light Gray, Silty, Stiff, Moist

REMARKS:

○ Natural Moisture = 25.7%

□ Natural Moisture = 28.0%

△ Natural Moisture = 22.4%

○ Location: Boring 8U ST16 Depth: 19½-21½ ft. Sample Number: 16

□ Location: Boring 9L Depth: 7½-9 ft. Sample Number:

△ Location: Boring 9U ST16 Depth: 19½-21½ ft. Sample Number: 16

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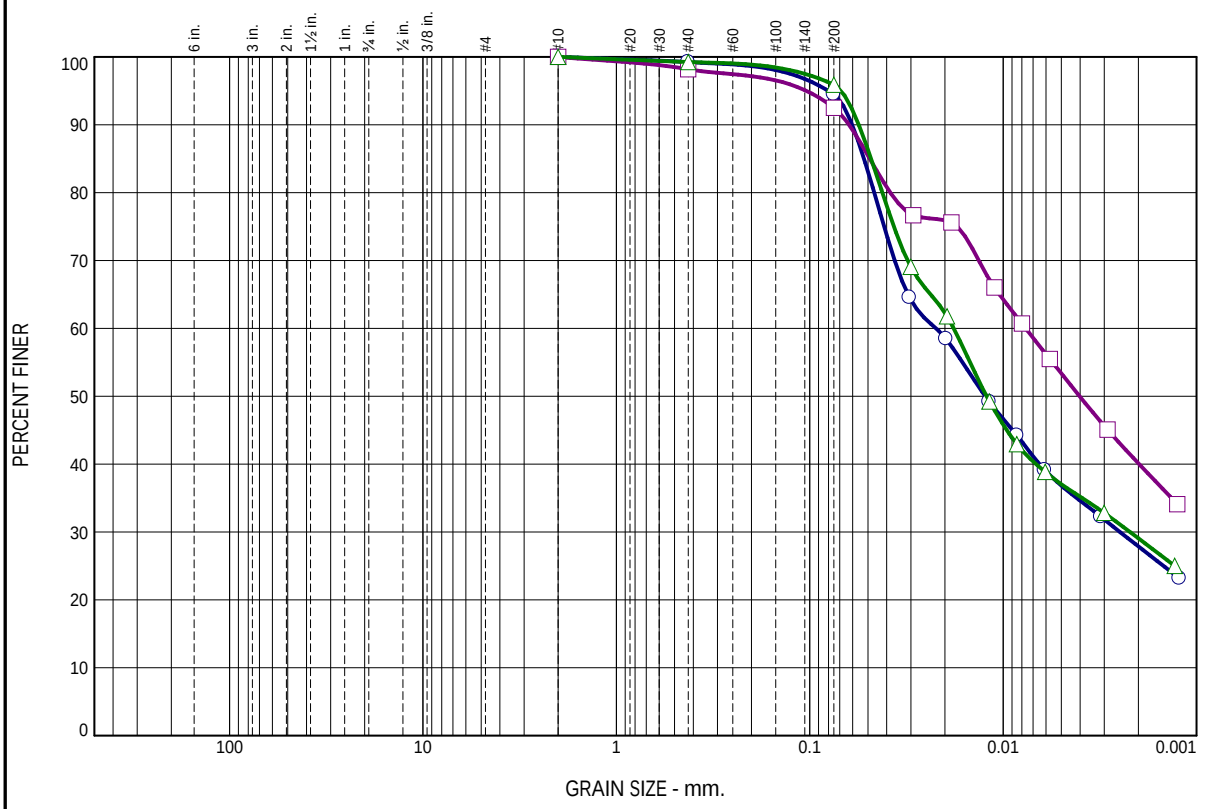
Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Project No.: 23-1071 Figure S-7

Tested By: ○ DAW □ DAW △ MAS Checked By: NAS

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PL	PI
○	0.0	0.0	5.5	66.6	27.9	CL	46	21	25
□	0.0	0.0	7.5	52.4	40.1	CL	36	20	16
△	0.0	0.0	4.1	66.8	29.1	CL	48	21	27

SIEVE inches size	PERCENT FINER ○	□	△
	GRAIN SIZE		
D_{60}	0.0222	0.0077	0.0180
D_{30}	0.0025		0.0022
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#10	100.0	100.0	100.0
#40	99.2	98.2	99.2
#200	94.5	92.5	95.9

Material Description

○ Lean Clay (CL), Yellow Brown mottled Light Gray/Gray, Silty, Trace Sand, Stiff, Moist

□ Lean Clay (CL), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist

△ Lean Clay (CL), Brown mottled Yellow Brown, Silty, Stiff, Moist

REMARKS:

○ Natural Moisture = 23.2%

□ Natural Moisture = 21.8%

△ Natural Moisture = 25.7%

○ Location: Boring 9 CCR ST8 Depth: 9½-11½ ft. Sample Number: 8

□ Location: Boring 11U ST8 Depth: 9½-11½ ft. Sample Number:

△ Location: Boring 11U ST16 Depth: 19½-21½ ft. Sample Number:

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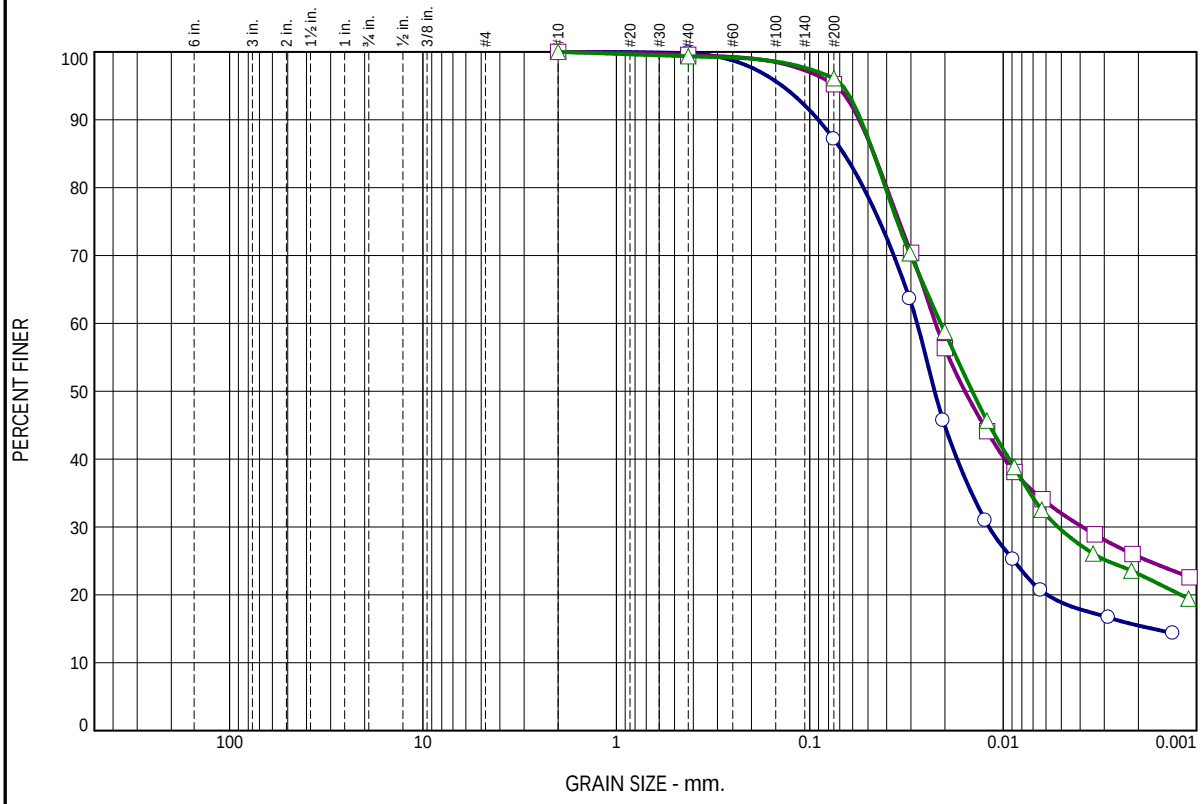
Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Project No.: 23-1071 Figure S-8

Tested By: DAW

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PL	PI
○	0.0	0.0	12.9	71.6	15.5	CL	30	19	11
□	0.0	0.0	4.8	69.6	25.6	CL	45	22	23
△	0.0	0.0	3.9	73.0	23.1	CL	42	22	20

SIEVE inches size	PERCENT FINER ○	□	△
GRAIN SIZE			
D_{60}	0.0278	0.0224	0.0210
D_{30}	0.0119	0.0039	0.0052
D_{10}			
COEFFICIENTS			
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#10	100.0	100.0	100.0
#40	99.8	99.6	99.3
#200	87.1	95.2	96.1

Material Description

○ Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist

□ Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Stiff, Moist

△ Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Stiff, Moist

REMARKS:

○ Natural Moisture = 23.2%

□ Natural Moisture = 21.8%

△ Natural Moisture = 21.6%

○ Location: Boring 12L Depth: 14½-16 ft. Sample Number:

□ Location: Boring 12U ST8 Depth: 9½-11½ ft. Sample Number: 8

△ Location: Boring 12U ST16 Depth: 19½-21½ ft. Sample Number: 16

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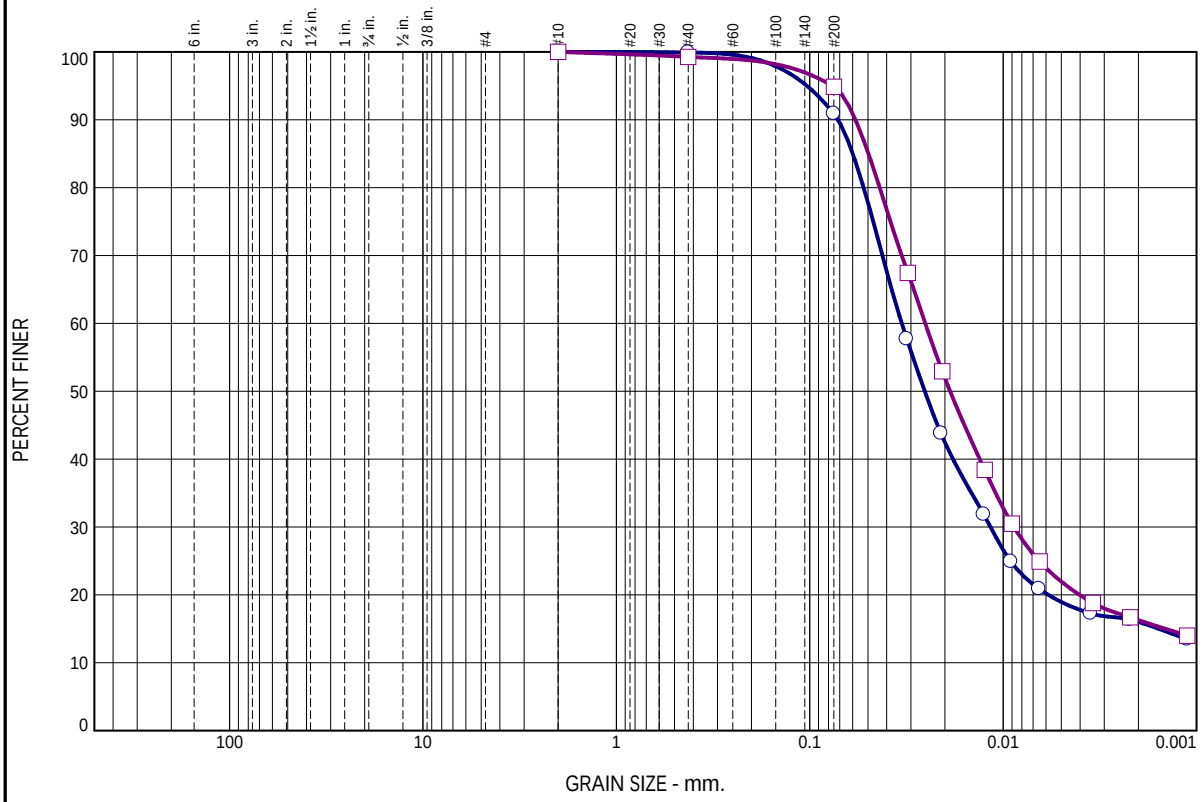
Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Project No.: 23-1071 Figure S-9

Tested By: ○ DAW □ MAS △ MAS

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PL	PI
○	0.0	0.0	9.1	74.9	16.0	CL	34	20	14
□	0.0	0.0	5.1	78.6	16.3	CH	52	25	27

SIEVE inches size	○ PERCENT FINER	□ PERCENT FINER
GRAIN SIZE		
D_{60}	0.0335	0.0253
D_{30}	0.0116	0.0088
D_{10}		
COEFFICIENTS		
C_c		
C_u		

SIEVE number size	○ PERCENT FINER	□ PERCENT FINER
#10	100.0	100.0
#40	99.9	99.3
#200	90.9	94.9

Material Description

○ Lean Clay (CL), Yellow Brown, Silty, Trace Sand, Stiff, Moist

□ Fat Clay (CH), Gray mottled Light Gray, Silty, Trace Sand, Stiff, Moist

REMARKS:

○ Natural Moisture = 18.4%

□ Natural Moisture = 21.1%

○ Location: Boring 13 BN ST7 Depth: 8½-10½ ft. Sample Number: 7

□ Location: Boring 13 BS ST7 Depth: 8½-10½ ft. Sample Number: 7

GEOTECHNICS
Soil & Material Testing
4510 Paris Gravel Road - Hannibal, MO

Client: Andrews Engineering

Project: Springfield, IL Ash Ponds

Project No.: 23-1071 Figure S-10

Tested By: MAS

Geotechnics Form No. 17-FW

PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Gray, Silty, Trace Sand, Medium, Moist**

LIQUID LIMIT **30** PLASTIC LIMIT **17** P.I. **13**

BORING NO. **Boring 1** SAMPLE NO.

SAMPLE TYPE **ST** DEPTH **24½-26½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **26.2%** INITIAL DRY DENSITY **100.8 P.C.F.**

FINAL WATER CONTENT **23.1%** FINAL DRY DENSITY **102.6 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
3:12:00 PM		0.200	7.214	40.438		2.89	7.04	20.750	210.9		231.650		
3:12:00 PM	3:33:00 PM	0.200	7.214	40.438	1260	5.00	4.94	-0.300	210.9	1.00	210.600	1.35E-06	1.27E-06
3:33:00 PM	3:53:00 PM	0.200	7.214	40.438	1200	6.77	3.17	-18.000	210.9	1.00	192.900	1.31E-06	1.23E-06
3:53:00 PM	4:34:00 PM	0.200	7.214	40.438	2460	9.89	0.04	-49.250	210.9	1.00	161.650	1.28E-06	1.21E-06
													1.23E-06

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 1.23 E-06 CM/SEC

REMARKS: Testing Completed 11/2/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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Soil & Material Testing
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Geotechnics Form No. 17-FW

PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Stiff, Moist**

LIQUID LIMIT **43** PLASTIC LIMIT **21** P.I. **22**

BORING NO. **Boring 1L** SAMPLE NO. **ST 18**

SAMPLE TYPE **ST** DEPTH **22-24 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **20.4%** INITIAL DRY DENSITY **114.0 P.C.F.**

FINAL WATER CONTENT **16.1%** FINAL DRY DENSITY **117.4 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
12:42:00 PM		0.200	7.330	41.980		4.60	5.36	3.800	70.3		74.100		
12:42:00 PM	12:50:00 PM	0.200	7.330	41.980	480	5.82	4.15	-8.350	70.3	0.99	61.950	6.51E-06	6.14E-06
12:50:00 PM	1:32:00 PM	0.200	7.330	41.980	2520	9.50	0.50	-45.000	70.3	0.99	25.300	6.21E-06	5.85E-06
1:32:00 PM	1:42:30 PM	0.200	7.330	41.980	630	9.99	0.01	-49.900	70.3	1.00	20.400	5.97E-06	5.62E-06
													5.84E-06

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 5.84 E-06 CM/SEC

REMARKS: Testing Completed 11/10/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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Geotechnics Form No. 17-FW

PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay with Sand (CL), Gray, Silty, Medium, Moist**

LIQUID LIMIT **39** PLASTIC LIMIT **21** P.I. **18**

BORING NO. **Boring 1LL** SAMPLE NO. **ST 12**

SAMPLE TYPE **ST** DEPTH **14½-16½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **23.8%** INITIAL DRY DENSITY **102.1 P.C.F.**

FINAL WATER CONTENT **22.8%** FINAL DRY DENSITY **103.9 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
2:32:00 PM		0.200	7.391	41.543		0.14	10.00	49.300	70.3		119.600		
2:32:00 PM	2:46:00 PM	0.200	7.391	41.543	840	3.35	6.78	17.150	70.3	1.00	87.450	6.63E-06	6.25E-06
2:46:00 PM	2:54:00 PM	0.200	7.391	41.543	480	4.75	5.38	3.150	70.3	1.00	73.450	6.47E-06	6.09E-06
2:54:00 PM	3:10:00 PM	0.200	7.391	41.543	960	6.82	3.31	-17.550	70.3	1.00	52.750	6.14E-06	5.78E-06
													6.02E-06

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 6.02 E-06 CM/SEC

REMARKS: Testing Completed 11/3/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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Geotechnics Form No. 17-FW

PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Fat Clay (CH), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist**

LIQUID LIMIT **57** PLASTIC LIMIT **21** P.I. **36**

BORING NO. **Boring 2** SAMPLE NO. **8**

SAMPLE TYPE **ST** DEPTH **22-24 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **21.5%** INITIAL DRY DENSITY **101.8 P.C.F.**

FINAL WATER CONTENT **23.0%** FINAL DRY DENSITY **102.1 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
6:39:00 AM		0.200	6.980	41.931		4.53	4.63	0.500	210.9		211.400		
6:39:00 AM	6:52:00 AM	0.200	6.980	41.931	780	4.60	4.56	-0.200	210.9	1.00	210.700	7.08E-08	6.67E-08
6:52:00 AM	7:30:00 AM	0.200	6.980	41.931	2280	4.81	4.34	-2.350	210.9	1.05	208.550	7.49E-08	7.05E-08
7:30:00 AM	7:48:00 AM	0.200	6.980	41.931	1080	4.90	4.24	-3.300	210.9	1.11	207.600	7.04E-08	6.63E-08
													6.87E-08

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 6.87 E-08 CM/SEC

REMARKS: Testing Completed 10/14/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Silty Clay (CL-ML), Yellow Brown mottled Light Gray, Trace Sand, Medium, Moist**

LIQUID LIMIT **27** PLASTIC LIMIT **21** P.I. **6**

BORING NO. **Boring 2L** SAMPLE NO. **6**

SAMPLE TYPE **ST** DEPTH **7.0-9.0 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **24.7%** INITIAL DRY DENSITY **101.9 P.C.F.**

FINAL WATER CONTENT **23.5%** FINAL DRY DENSITY **103.2 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
3:28:00 PM		0.200	7.005	41.254		3.97	6.85	14.400	70.3		84.700		
3:28:00 PM	3:40:00 PM	0.200	7.005	41.254	720	6.71	4.10	-13.050	70.3	1.00	57.250	9.24E-06	8.70E-06
3:40:00 PM	3:50:00 PM	0.200	7.005	41.254	600	8.30	2.50	-29.000	70.3	1.01	41.300	9.24E-06	8.71E-06
3:50:00 PM	4:02:00 PM	0.200	7.005	41.254	720	9.47	1.33	-40.700	70.3	1.00	29.600	7.86E-06	7.40E-06
													8.24E-06

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 8.24 E-06 CM/SEC

REMARKS: Testing Completed 11/5/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Fat Clay (CH), Light Gray mottled Yellow Brown, Black Oxidation, Silty, Stiff, Moist**

LIQUID LIMIT **60** PLASTIC LIMIT **24** P.I. **36**

BORING NO. **Boring 3** SAMPLE NO. **ST 8**

SAMPLE TYPE **ST** DEPTH **9½-11½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **24.7%** INITIAL DRY DENSITY **100.2 P.C.F.**

FINAL WATER CONTENT **26.1%** FINAL DRY DENSITY **99.0 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
5:53:00 AM		0.200	7.163	42.028		1.50	7.88	31.900	210.9		242.800		
5:53:00 AM	7:13:00 AM	0.200	7.163	42.028	4800	1.56	7.82	31.300	210.9	1.00	242.200	8.79E-09	8.28E-09
7:13:00 AM	7:38:00 AM	0.200	7.163	42.028	1500	1.58	7.80	31.100	210.9	1.00	242.000	9.39E-09	8.84E-09
7:38:00 AM	8:29:00 AM	0.200	7.163	42.028	3060	1.62	7.76	30.700	210.9	1.00	241.600	9.21E-09	8.68E-09
													8.50E-09

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 8.50 E-09 CM/SEC

REMARKS: Testing Completed 11/15/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Gray mottled Yellow Brown, Silty, Stiff, Moist**

LIQUID LIMIT **43** PLASTIC LIMIT **20** P.I. **23**

BORING NO. **Boring 3** SAMPLE NO. **ST 16**

SAMPLE TYPE **ST** DEPTH **19½-21½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **25.8%** INITIAL DRY DENSITY **95.1 P.C.F.**

FINAL WATER CONTENT **29.5%** FINAL DRY DENSITY **93.0 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
12:10:00 PM		0.200	7.432	42.077		5.34	4.67	-3.350	210.9		207.550		
12:10:00 PM	12:30:00 PM	0.200	7.432	42.077	1200	6.00	4.01	-9.950	210.9	1.00	200.950	4.76E-07	4.48E-07
12:30:00 PM	12:54:00 PM	0.200	7.432	42.077	1440	6.72	3.29	-17.150	210.9	1.00	193.750	4.48E-07	4.22E-07
12:54:00 PM	1:25:00 PM	0.200	7.432	42.077	1860	7.60	2.40	-26.000	210.9	1.01	184.900	4.44E-07	4.18E-07
													4.27E-07

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 4.27 E-07 CM/SEC

REMARKS: Testing Completed 11/15/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay with Sand (CL), Yellow Brown mottled Light Gray/Gray, Silty, Stiff, Moist**

LIQUID LIMIT **38** PLASTIC LIMIT **22** P.I. **16**

BORING NO. **Boring 3U** SAMPLE NO. **ST 8**

SAMPLE TYPE **ST** DEPTH **9½-11 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **21.4%** INITIAL DRY DENSITY **101.2 P.C.F.**

FINAL WATER CONTENT **21.4%** FINAL DRY DENSITY **102.2 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
8:55:00 PM		0.200	7.483	41.834		2.21	6.92	23.550	351.5		375.050		
8:55:00 PM	7:04:00 AM	0.200	7.483	41.834	42180	3.58	5.53	9.750	351.5	1.01	361.250	1.59E-08	1.50E-08
7:04:00 AM	8:38:00 AM	0.200	7.483	41.834	5640	3.78	5.33	7.750	351.5	1.00	359.250	1.76E-08	1.66E-08
8:38:00 AM	12:03:00 PM	0.200	7.483	41.834	12300	4.18	4.92	3.700	351.5	1.03	355.200	1.65E-08	1.55E-08
													1.52E-08

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 1.52 E-08 CM/SEC

REMARKS: Testing Completed 11/21/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL/CH), Yellow Brown mottled Light Gray, Silty, Stiff, Moist**

LIQUID LIMIT **49** PLASTIC LIMIT **22** P.I. **27**

BORING NO. **Boring 4** SAMPLE NO.

SAMPLE TYPE **ST** DEPTH **19½-21½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **25.5%** INITIAL DRY DENSITY **96.4 P.C.F.**

FINAL WATER CONTENT **23.8%** FINAL DRY DENSITY **100.0 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
7:09:00 PM		0.200	7.437	41.205		3.74	5.94	11.000	210.9		221.900		
7:09:00 PM	8:29:00 PM	0.200	7.437	41.205	4800	4.13	5.51	6.900	210.9	1.10	217.800	7.01E-08	6.61E-08
8:29:00 PM	9:00:00 PM	0.200	7.437	41.205	1860	4.30	5.34	5.200	210.9	1.00	216.100	7.60E-08	7.16E-08
9:00:00 PM	9:28:00 PM	0.200	7.437	41.205	1680	4.42	5.22	4.000	210.9	1.00	214.900	5.98E-08	5.64E-08
													6.53E-08

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 6.53 E-08 CM/SEC

REMARKS: Testing Completed 11/5/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Brown mottled Yellow Brown/Light Gray, Silty, Trace Sand, Medium, Moist**

LIQUID LIMIT **32** PLASTIC LIMIT **20** P.I. **12**

BORING NO. **Boring 4L** SAMPLE NO. **ST 10**

SAMPLE TYPE **ST** DEPTH **12-14 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **25.7%** INITIAL DRY DENSITY **100.7 P.C.F.**

FINAL WATER CONTENT **24.6%** FINAL DRY DENSITY **101.8 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
12:16:00 PM		0.200	7.397	41.013		1.20	8.82	38.100	140.6		178.700		
12:16:00 PM	1:03:00 PM	0.200	7.397	41.013	2820	3.75	6.23	12.400	140.6	1.02	153.000	9.93E-07	9.35E-07
1:03:00 PM	2:23:00 PM	0.200	7.397	41.013	4800	7.39	2.55	-24.200	140.6	1.01	116.400	1.03E-06	9.68E-07
2:23:00 PM	3:26:00 PM	0.200	7.397	41.013	3780	9.59	0.32	-46.350	140.6	1.01	94.250	1.01E-06	9.49E-07
													9.53E-07

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 9.53 E-07 CM/SEC

REMARKS: Testing Completed 11/7/2023

TESTED BY: **BJS**

COMPUTED BY: **BJS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Fat Clay (CH), Yellow Brown mottled Light Gray, Silty, Stiff, Moist**

LIQUID LIMIT **62** PLASTIC LIMIT **24** P.I. **38**

BORING NO. **Boring 4U** SAMPLE NO. **ST 22**

SAMPLE TYPE **ST** DEPTH **27-29 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **28.8%** INITIAL DRY DENSITY **94.6 P.C.F.**

FINAL WATER CONTENT **28.1%** FINAL DRY DENSITY **95.5 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
12:47:00 PM		0.200	7.706	42.077		2.33	6.84	22.550	210.9		233.450		
12:47:00 PM	1:08:00 PM	0.200	7.706	42.077	1260	2.35	6.82	22.350	210.9	1.00	233.250	1.25E-08	1.17E-08
1:08:00 PM	2:20:00 PM	0.200	7.706	42.077	4320	2.42	6.74	21.600	210.9	1.14	232.500	1.37E-08	1.29E-08
2:20:00 PM	4:43:00 PM	0.200	7.706	42.077	8580	2.50	6.66	20.800	210.9	1.00	231.700	7.36E-09	6.93E-09
													9.17E-09

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 9.17 E-09 CM/SEC

REMARKS: Testing Completed 11/10/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Light Gray mottled Gray/Yellow Brown, Silty, Trace Sand, Medium, Moist**

LIQUID LIMIT **43** PLASTIC LIMIT **22** P.I. **21**

BORING NO. **Boring 5** SAMPLE NO. **10**

SAMPLE TYPE **ST** DEPTH **24½-26½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **24.5%** INITIAL DRY DENSITY **99.8 P.C.F.**

FINAL WATER CONTENT **23.7%** FINAL DRY DENSITY **100.3 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
1:59:00 PM		0.200	6.904	41.883		2.62	6.29	18.350	210.9		229.250		
1:59:00 PM	2:35:00 PM	0.200	6.904	41.883	2160	3.48	5.40	9.600	210.9	1.03	220.500	2.97E-07	2.80E-07
2:35:00 PM	3:06:00 PM	0.200	6.904	41.883	1860	4.16	4.69	2.650	210.9	1.04	213.550	2.84E-07	2.67E-07
3:06:00 PM	3:47:00 PM	0.200	6.904	41.883	2460	5.00	3.84	-5.800	210.9	1.01	205.100	2.71E-07	2.55E-07
													2.67E-07

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 2.67 E-07 CM/SEC

REMARKS: Testing Completed 10/17/2023

TESTED BY: **NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist**

LIQUID LIMIT **46** PLASTIC LIMIT **24** P.I. **22**

BORING NO. **Boring 5L** SAMPLE NO.

SAMPLE TYPE **ST** DEPTH **9½-11 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **29.0%** INITIAL DRY DENSITY **94.4 P.C.F.**

FINAL WATER CONTENT **28.4%** FINAL DRY DENSITY **94.3 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
12:33:00 PM		0.200	7.696	40.869		0.08	9.97	49.450	210.9		260.350		
12:33:00 PM	2:12:00 PM	0.200	7.696	40.869	5940	4.13	5.77	8.200	210.9	1.04	219.100	5.47E-07	5.15E-07
2:12:00 PM	2:38:00 PM	0.200	7.696	40.869	1560	5.12	4.77	-1.750	210.9	1.01	209.150	5.61E-07	5.28E-07
2:38:00 PM	3:21:00 PM	0.200	7.696	40.869	2580	6.62	3.24	-16.900	210.9	1.02	194.000	5.49E-07	5.17E-07
													5.18E-07

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 5.18 E-07 CM/SEC

REMARKS: Testing Completed 10/16/2023

TESTED BY: **NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Gray/Greenish Gray mottled Yellow Brown, Silty, Trace Sand, Stiff, Moist**

LIQUID LIMIT **34** PLASTIC LIMIT **19** P.I. **15**

BORING NO. **Boring 6** SAMPLE NO. **8**

SAMPLE TYPE **ST** DEPTH **17-19 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **19.5%** INITIAL DRY DENSITY **106.8 P.C.F.**

FINAL WATER CONTENT **20.7%** FINAL DRY DENSITY **106.4 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
7:10:00 AM		0.200	8.199	42.418		3.33	6.20	14.350	210.9		225.250		
7:10:00 AM	8:01:00 AM	0.200	8.199	42.418	3060	3.49	6.04	12.750	210.9	1.00	223.650	4.50E-08	4.24E-08
8:01:00 AM	9:31:00 AM	0.200	8.199	42.418	5400	3.76	5.76	10.000	210.9	1.04	220.900	4.43E-08	4.17E-08
9:31:00 AM	10:31:00 AM	0.200	8.199	42.418	3600	3.95	5.57	8.100	210.9	1.00	219.000	4.64E-08	4.37E-08
													4.25E-08

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 4.25 E-08 CM/SEC

REMARKS: Testing Completed 10/23/2023

TESTED BY: **NAS**

COMPUTED BY: **NAS**

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Geotechnics Form No. 17-FW

PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Light Gray mottled Reddish Brown, Silty, Trace Sand, Medium, Moist**

LIQUID LIMIT **41** PLASTIC LIMIT **23** P.I. **18**

BORING NO. **Boring 6L-ST1** SAMPLE NO. **ST1**

SAMPLE TYPE **ST** DEPTH **7½-9ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **27.5%** INITIAL DRY DENSITY **95.2 P.C.F.**

FINAL WATER CONTENT **26.0%** FINAL DRY DENSITY **96.2 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
10:42:00 AM		0.200	7.625	39.301		1.80	7.77	29.850	210.9		240.750		
10:42:00 AM	11:10:00 AM	0.200	7.625	39.301	1680	2.98	6.56	17.900	210.9	1.03	228.800	5.88E-07	5.54E-07
11:10:00 AM	11:59:00 AM	0.200	7.625	39.301	2940	4.88	4.61	-1.350	210.9	1.03	209.550	5.80E-07	5.46E-07
11:59:00 AM	12:16:00 PM	0.200	7.625	39.301	1020	5.49	3.98	-7.550	210.9	1.03	203.350	5.71E-07	5.38E-07
													5.47E-07

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 5.47 E-07 CM/SEC

REMARKS: Testing Completed 10/20/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Fat Clay (CH), Brown/Yellow Brown mottled Light Gray, Silty, Stiff, Moist**

LIQUID LIMIT **63** PLASTIC LIMIT **20** P.I. **43**

BORING NO. **Boring 7** SAMPLE NO. **7**

SAMPLE TYPE **ST** DEPTH **19½-21½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **28.4%** INITIAL DRY DENSITY **95.5 P.C.F.**

FINAL WATER CONTENT **27.4%** FINAL DRY DENSITY **94.6 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
1:32:00 PM		0.200	7.478	40.869		0.20	9.40	46.000	210.9		256.900		
1:32:00 PM	3:08:00 PM	0.200	7.478	40.869	5760	0.35	9.25	44.500	210.9	1.00	255.400	1.86E-08	1.75E-08
3:08:00 PM	3:45:00 PM	0.200	7.478	40.869	2220	0.40	9.20	44.000	210.9	1.00	254.900	1.62E-08	1.52E-08
3:45:00 PM	4:16:00 PM	0.200	7.478	40.869	1860	0.45	9.15	43.500	210.9	1.00	254.400	1.93E-08	1.82E-08
													1.71E-08

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 1.71 E-08 CM/SEC

REMARKS: Testing Completed 10/26/2023

TESTED BY: **NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Sandy Silty Clay (CL-ML), Yellow Brown mottled Reddish Brown/Light Gray, Medium, Moist**

LIQUID LIMIT **26** PLASTIC LIMIT **19** P.I. **7**

BORING NO. **Boring 8L** SAMPLE NO. **5**

SAMPLE TYPE **ST** DEPTH **12-14 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **24.0%** INITIAL DRY DENSITY **101.1 P.C.F.**

FINAL WATER CONTENT **24.7%** FINAL DRY DENSITY **101.0 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
2:24:00 PM		0.200	7.620	41.302		4.90	5.01	0.550	70.3		70.850		
2:24:00 PM	3:27:00 PM	0.200	7.620	41.302	3780	8.66	1.24	-37.100	70.3	1.00	33.200	3.70E-06	3.49E-06
3:27:00 PM	3:48:00 PM	0.200	7.620	41.302	1260	9.36	0.54	-44.100	70.3	1.00	26.200	3.47E-06	3.27E-06
3:48:00 PM	4:08:00 PM	0.200	7.620	41.302	1200	9.90	0.00	-49.500	70.3	1.00	20.800	3.55E-06	3.34E-06
													3.41E-06

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 3.41 E-06 CM/SEC

REMARKS: Testing Completed 11/7/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Yelllow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist**

LIQUID LIMIT **48** PLASTIC LIMIT **21** P.I. **27**

BORING NO. **Boring 8U** SAMPLE NO. **ST 8**

SAMPLE TYPE **ST** DEPTH **9½-11½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **23.0%** INITIAL DRY DENSITY **102.4 P.C.F.**

FINAL WATER CONTENT **23.3%** FINAL DRY DENSITY **102.9 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
10:58:00 AM		0.200	7.280	41.398		5.13	4.40	-3.650	210.9		207.250		
10:58:00 AM	12:10:00 PM	0.200	7.280	41.398	4320	5.25	4.27	-4.900	210.9	1.08	206.000	2.46E-08	2.32E-08
12:10:00 PM	3:07:00 PM	0.200	7.280	41.398	10620	5.54	3.96	-7.900	210.9	1.07	203.000	2.43E-08	2.29E-08
3:07:00 PM	3:54:00 PM	0.200	7.280	41.398	2820	5.61	3.89	-8.600	210.9	1.00	202.300	2.15E-08	2.03E-08
													2.25E-08

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 2.25 E-08 CM/SEC

REMARKS: Testing Completed 11/17/2023

TESTED BY: **NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Light Gray mottled Yellow Brown, Silty, Stiff, Moist**

LIQUID LIMIT **45** PLASTIC LIMIT **19** P.I. **26**

BORING NO. **Boring 8U** SAMPLE NO. **ST16**

SAMPLE TYPE **ST** DEPTH **19½-21½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **23.4%** INITIAL DRY DENSITY **100.9 P.C.F.**

FINAL WATER CONTENT **25.4%** FINAL DRY DENSITY **100.2 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
8:39:00 AM		0.200	7.732	41.398		1.13	7.78	33.250	210.9		244.150		
8:39:00 AM	9:05:00 AM	0.200	7.732	41.398	1560	1.15	7.76	33.050	210.9	1.00	243.950	9.81E-09	9.24E-09
9:05:00 AM	10:02:00 AM	0.200	7.732	41.398	3420	1.19	7.72	32.650	210.9	1.00	243.550	8.96E-09	8.44E-09
10:02:00 AM	12:04:00 PM	0.200	7.732	41.398	7320	1.29	7.62	31.650	210.9	1.00	242.550	1.05E-08	9.89E-09
													9.40E-09

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 9.40 E-09 CM/SEC

REMARKS: Testing Completed 11/21/2023

TESTED BY: **NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Yellow Brown mottled Light Gray/Gray, Silty, Trace Sand, Stiff, Moist**

LIQUID LIMIT **46** PLASTIC LIMIT **21** P.I. **25**

BORING NO. **Boring 9CCR** SAMPLE NO. **ST 8**

SAMPLE TYPE **ST** DEPTH **9½-11½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **22.9%** INITIAL DRY DENSITY **102.9 P.C.F.**

FINAL WATER CONTENT **23.2%** FINAL DRY DENSITY **103.4 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
9:05:00 AM		0.200	7.336	41.350		2.15	7.14	24.950	210.9		235.850		
9:05:00 AM	10:59:00 AM	0.200	7.336	41.350	6840	2.24	7.05	24.050	210.9	1.00	234.950	9.92E-09	9.34E-09
10:59:00 AM	12:10:00 PM	0.200	7.336	41.350	4260	2.30	6.99	23.450	210.9	1.00	234.350	1.06E-08	1.00E-08
12:10:00 PM	3:06:00 PM	0.200	7.336	41.350	10560	2.44	6.85	22.050	210.9	1.00	232.950	1.01E-08	9.48E-09
													9.55E-09

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 9.55 E-09 CM/SEC

REMARKS: Testing Completed 11/17/2023

TESTED BY: **NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay with Sand (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Soft, Moist**

LIQUID LIMIT **26** PLASTIC LIMIT **17** P.I. **9**

BORING NO. **Boring 9L** SAMPLE NO.

SAMPLE TYPE **ST** DEPTH **7½-9 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **24.3%** INITIAL DRY DENSITY **101.3 P.C.F.**

FINAL WATER CONTENT **20.1%** FINAL DRY DENSITY **106.5 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
5:24:00 PM		0.200	7.112	40.391		4.13	5.83	8.500	70.3		78.800		
5:24:00 PM	6:08:00 PM	0.200	7.112	40.391	2640	6.89	3.06	-19.150	70.3	1.00	51.150	2.88E-06	2.72E-06
6:08:00 PM	6:26:00 PM	0.200	7.112	40.391	1080	7.63	2.30	-26.650	70.3	1.03	43.650	2.59E-06	2.44E-06
6:26:00 PM	6:40:00 PM	0.200	7.112	40.391	840	8.09	1.85	-31.200	70.3	0.98	39.100	2.31E-06	2.17E-06
													2.55E-06

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 2.55 E-06 CM/SEC

REMARKS: Testing Completed 11/9/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Gray mottled Light Gray, Silty, Stiff, Moist**

LIQUID LIMIT **46** PLASTIC LIMIT **22** P.I. **24**

BORING NO. **Boring 9U** SAMPLE NO. **ST 16**

SAMPLE TYPE **ST** DEPTH **19½-21½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **23.4%** INITIAL DRY DENSITY **102.5 P.C.F.**

FINAL WATER CONTENT **23.1%** FINAL DRY DENSITY **102.7 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
3:13:00 PM		0.200	7.681	42.077		0.88	8.68	39.000	210.9		249.900		
3:13:00 PM	3:58:00 PM	0.200	7.681	42.077	2700	0.99	8.57	37.900	210.9	1.00	248.800	2.98E-08	2.81E-08
3:58:00 PM	4:25:00 PM	0.200	7.681	42.077	1620	1.06	8.50	37.200	210.9	1.00	248.100	3.17E-08	2.99E-08
4:25:00 PM	4:58:00 PM	0.200	7.681	42.077	1980	1.12	8.44	36.600	210.9	1.00	247.500	2.23E-08	2.10E-08
													2.63E-08

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 2.63 E-08 CM/SEC

REMARKS: Testing Completed 11/22/2023

TESTED BY: **NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Yellow Brown mottled Light Gray, Silty, Trace Sand, Stiff, Moist**

LIQUID LIMIT **36** PLASTIC LIMIT **20** P.I. **16**

BORING NO. **Boring 11U** SAMPLE NO. **ST 8**

SAMPLE TYPE **ST** DEPTH **9½-11½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **23.1%** INITIAL DRY DENSITY **104.4 P.C.F.**

FINAL WATER CONTENT **22.3%** FINAL DRY DENSITY **105.9 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
7:46:00 AM		0.200	7.244	41.834		2.04	7.38	26.700	210.9		237.600		
7:46:00 AM	8:57:00 AM	0.200	7.244	41.834	4260	2.12	7.30	25.900	210.9	1.00	236.800	1.37E-08	1.29E-08
8:57:00 AM	9:30:00 AM	0.200	7.244	41.834	1980	2.16	7.26	25.500	210.9	1.00	236.400	1.48E-08	1.39E-08
9:30:00 AM	10:41:00 AM	0.200	7.244	41.834	4260	2.25	7.17	24.600	210.9	1.00	235.500	1.55E-08	1.46E-08
													1.38E-08

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 1.38 E-08 CM/SEC

REMARKS: Testing Completed 11/13/2023

TESTED BY: **NAS**

COMPUTED BY: **NAS**

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PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Brown mottled Yellow Brown, Silty, Stiff, Moist**

LIQUID LIMIT **48** PLASTIC LIMIT **21** P.I. **27**

BORING NO. **Boring 11U** SAMPLE NO. **ST 16**

SAMPLE TYPE **ST** DEPTH **19½-21½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **25.2%** INITIAL DRY DENSITY **97.4 P.C.F.**

FINAL WATER CONTENT **26.8%** FINAL DRY DENSITY **97.3 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
12:17:00 PM		0.200	7.498	42.028		0.50	9.38	44.400	210.9		255.300		
12:17:00 PM	12:30:00 PM	0.200	7.498	42.028	780	0.84	9.02	40.900	210.9	1.06	251.800	3.16E-07	2.97E-07
12:30:00 PM	12:40:00 PM	0.200	7.498	42.028	600	1.10	8.77	38.350	210.9	0.96	249.250	3.03E-07	2.85E-07
12:40:00 PM	1:03:00 PM	0.200	7.498	42.028	1380	1.73	8.12	31.950	210.9	1.03	242.850	3.36E-07	3.17E-07
													3.04E-07

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 3.04 E-07 CM/SEC

REMARKS: Testing Completed 11/13/2023

TESTED BY: **NAS**

COMPUTED BY: **NAS**

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ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Light Gray mottled Yelllow Brown, Silty, Trace Sand, Stiff, Moist**

LIQUID LIMIT **30** PLASTIC LIMIT **19** P.I. **11**

BORING NO. **Boring 12L** SAMPLE NO.

SAMPLE TYPE **ST** DEPTH **14½-16 ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **22.2%** INITIAL DRY DENSITY **104.3 P.C.F.**

FINAL WATER CONTENT **22.0%** FINAL DRY DENSITY **105.1 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
5:25:00 PM		0.200	7.203	41.447		5.54	3.60	-9.700	70.3		60.600		
5:25:00 PM	5:40:00 PM	0.200	7.203	41.447	900	5.83	3.30	-12.650	70.3	1.03	57.650	9.64E-07	9.08E-07
5:40:00 PM	5:52:00 PM	0.200	7.203	41.447	720	6.09	3.02	-15.350	70.3	1.08	54.950	1.16E-06	1.09E-06
5:52:00 PM	5:58:00 PM	0.200	7.203	41.447	360	6.20	2.92	-16.400	70.3	0.91	53.900	9.31E-07	8.77E-07
													9.69E-07

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 9.69 E-07 CM/SEC

REMARKS: Testing Completed 11/3/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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A Division of Klingner

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Geotechnics Form No. 17-FW

PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Yellow Brown mottled Light Gray, Black Oxidation, Silty, Stiff, Moist**

LIQUID LIMIT **45** PLASTIC LIMIT **22** P.I. **23**

BORING NO. **Boring 12U** SAMPLE NO. **ST 8**

SAMPLE TYPE **ST** DEPTH **9½-11½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **20.7%** INITIAL DRY DENSITY **107.5 P.C.F.**

FINAL WATER CONTENT **21.6%** FINAL DRY DENSITY **106.3 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
8:14:00 AM		0.200	7.457	41.785		1.48	7.91	32.150	210.9		243.050		
8:14:00 AM	9:34:00 AM	0.200	7.457	41.785	4800	1.50	7.89	31.950	210.9	1.00	242.850	3.06E-09	2.88E-09
9:34:00 AM	11:39:00 AM	0.200	7.457	41.785	7500	1.54	7.85	31.550	210.9	1.00	242.450	3.92E-09	3.70E-09
11:39:00 AM	1:09:00 PM	0.200	7.457	41.785	5400	1.56	7.83	31.350	210.9	1.00	242.250	2.73E-09	2.57E-09
													3.13E-09

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 3.13 E-09 CM/SEC

REMARKS: Testing Completed 11/24/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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Geotechnics Form No. 17-FW

PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Yellow Brown mottled Light Gray, Silty, Black Oxidation, Silty, Stiff, Moist**

LIQUID LIMIT **42** PLASTIC LIMIT **22** P.I. **20**

BORING NO. **Boring 12U** SAMPLE NO. **ST 16**

SAMPLE TYPE **ST** DEPTH **19½-21½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **22.2%** INITIAL DRY DENSITY **100.1 P.C.F.**

FINAL WATER CONTENT **26.8%** FINAL DRY DENSITY **97.3 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
6:31:00 AM		0.200	7.366	42.126		1.62	8.07	32.250	210.9		243.150		
6:31:00 AM	8:42:00 AM	0.200	7.366	42.126	7860	1.74	7.96	31.100	210.9	0.92	242.000	1.05E-08	9.93E-09
8:42:00 AM	10:53:00 AM	0.200	7.366	42.126	7860	1.86	7.84	29.900	210.9	1.00	240.800	1.11E-08	1.04E-08
10:53:00 AM	4:03:00 PM	0.200	7.366	42.126	18600	2.13	7.55	27.100	210.9	1.07	238.000	1.10E-08	1.04E-08
													1.03E-08

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 1.03 E-08 CM/SEC

REMARKS: Testing Completed 11/25/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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Geotechnics Form No. 17-FW

PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Lean Clay (CL), Yellow Brown, Silty, Trace Sand, Stiff, Moist**

LIQUID LIMIT **34** PLASTIC LIMIT **20** P.I. **14**

BORING NO. **Boring 13BN** SAMPLE NO. **ST 7**

SAMPLE TYPE **ST** DEPTH **8½-9½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **19.0%** INITIAL DRY DENSITY **109.7 P.C.F.**

FINAL WATER CONTENT **18.8%** FINAL DRY DENSITY **110.9 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
9:06:00 AM		0.200	7.219	41.785		5.27	4.64	-3.150	210.9		207.750		
9:06:00 AM	10:18:00 AM	0.200	7.219	41.785	4320	5.32	4.59	-3.650	210.9	1.00	207.250	9.64E-09	9.08E-09
10:18:00 AM	12:22:00 PM	0.200	7.219	41.785	7440	5.40	4.51	-4.450	210.9	1.00	206.450	8.98E-09	8.46E-09
12:22:00 PM	1:18:00 PM	0.200	7.219	41.785	3360	5.44	4.47	-4.850	210.9	1.00	206.050	9.97E-09	9.39E-09
													8.84E-09

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 8.84 E-09 CM/SEC

REMARKS: Testing Completed 11/27/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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Geotechnics Form No. 17-FW

PERMEABILITY TEST REPORT
ASTM D 5084-10

PROJECT No. **23-1071**

PROJECT **Andrews - Springfield, IL Ash Ponds** LOCATION **Springfield, IL**
CLIENT **Andrews Engineering** SAMPLING DATE

SAMPLE DESCRIPTION **Fat Clay (CH), Gray mottled Light Gray, Silty, Trace Sand, Stiff, Moist**

LIQUID LIMIT **52** PLASTIC LIMIT **25** P.I. **27**

BORING NO. **Boring 13BS** SAMPLE NO. **ST 7**

SAMPLE TYPE **ST** DEPTH **8½-9½ ft.**

SPECIFIC GRAVITY, Gs TEST METHOD **ASTM D 5084-10**

INITIAL WATER CONTENT **19.1%** INITIAL DRY DENSITY **109.6 P.C.F.**

FINAL WATER CONTENT **18.2%** FINAL DRY DENSITY **110.6 P.C.F.**

t_1	t_2	a	L	A	t	head	tail	h_w	h_a	dt/dh	h_a+h_w	k	k_{20}
12:54:00 PM		0.200	5.476	41.013		1.24	8.79	37.750	210.9		248.650		
12:54:00 PM	2:26:00 PM	0.200	5.476	41.013	5520	1.51	8.52	35.050	210.9	1.00	245.950	2.64E-08	2.49E-08
2:26:00 PM	4:58:00 PM	0.200	5.476	41.013	9120	1.90	8.12	31.100	210.9	1.03	242.000	2.37E-08	2.23E-08
4:58:00 PM	6:40:00 PM	0.200	5.476	41.013	6120	2.18	7.86	28.400	210.9	0.93	239.300	2.45E-08	2.31E-08
													2.32E-08

COEFFICIENT OF VERTICAL PERMEABILITY
K_{20} = 2.32 E-08 CM/SEC

REMARKS: Testing Completed 11/27/2023

TESTED BY: **BJS/NAS**

COMPUTED BY: **NAS**

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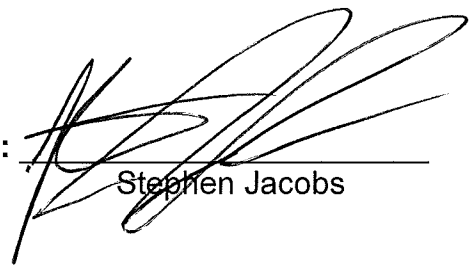
Report of Lab Test

PROJECT:	CWLP	**PROJECT NO:**	418834
		DATE OF TEST	June 03, 2024
CLIENT:	Andrews Engineering	**REPORT NUMBER:**	418834-01
ATTN:	Mr. Brad Hunsberger	**PAGE NO.**	1/1

ITEM: **PERMEABILITY TEST RESULTS**

Sample	Moisture Content (%)		Dry Unit Weight (PCF)	Permeability (Cm./Sec.)
	Before Test	After Test		
L4 (17'-19')	37.6	31.5	89.2	1.7 x 10-8
D3 (29.5'-31.5')	27.0	26.6	98.4	2.1 x 10-6
D1 (38.5'-40.5')	23.1	22.9	105.6	5.1 x 10-8
L5 (37.5'-39.5')	23.2	22.4	103.6	6.8 x 10-6
D2 (35.5'-37.5')	25.2	25.0	98.8	2.8 x 10-7
L3 (34.5'-36.5')	24.3	30.4	94.1	8.5 x 10-8
L1 (36'-38')	26.5	25.9	98.2	4.5 x 10-7
D4 (34.5'-36.5')	27.8	23.0	99.4	1.4 x 10-6

NOTES: Test ran according to ASTM D-5084

BY: 

Stephen Jacobs

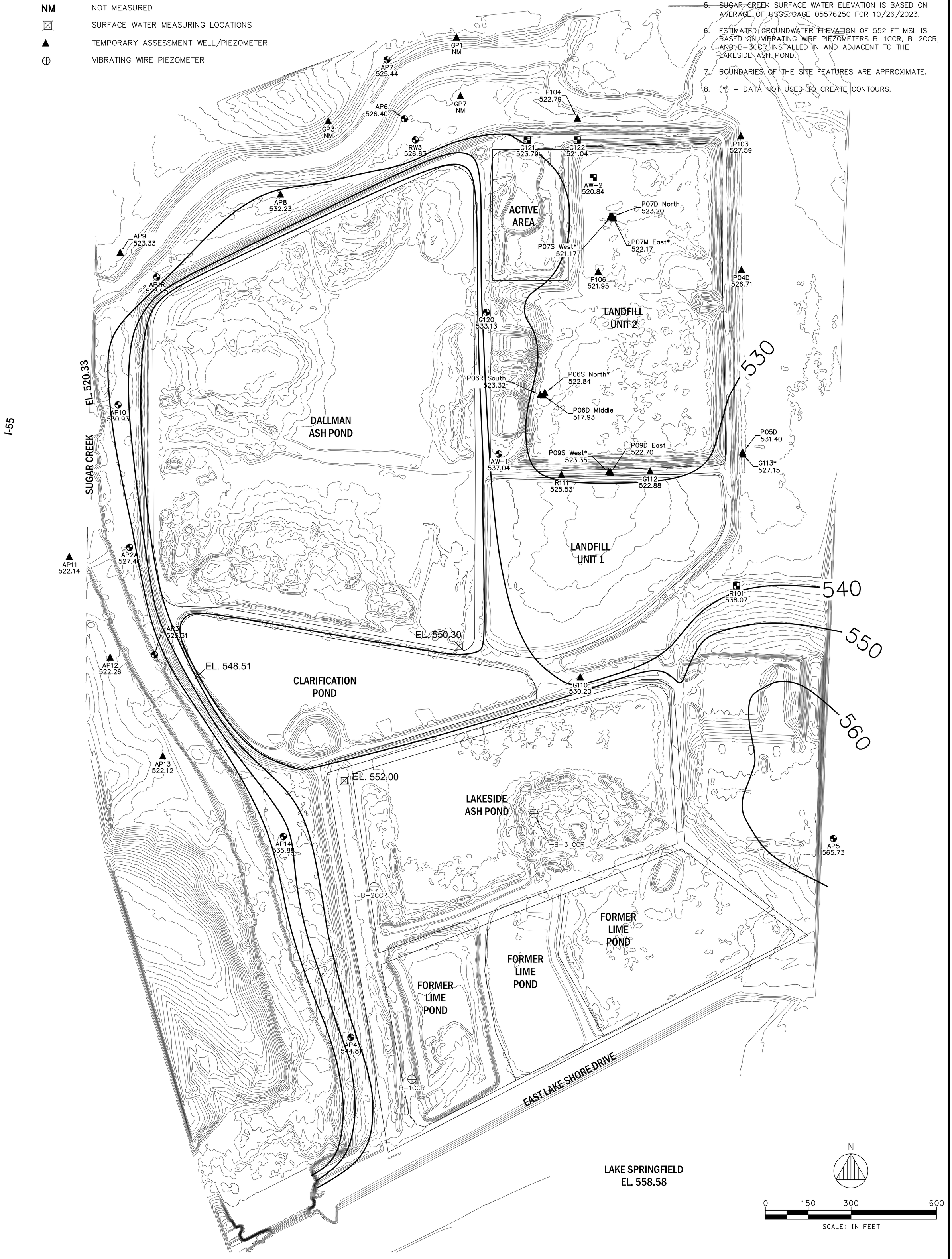
APPENDIX F:
POTENTIOMETRIC SURFACE MAPS

LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- CCR SURFACE IMPOUNDMENT WELL
- FGDS LANDFILL WELL
- NM — NOT MEASURED
- SURFACE WATER MEASURING LOCATIONS
- TEMPORARY ASSESSMENT WELL/PIEZOMETER
- VIBRATING WIRE PIEZOMETER

NOTES

1. FLIGHT DATE: APRIL 2023.
2. POTENTIOMETRIC CONTOUR INTERVAL SHOWN IS 10 FEET.
3. TOPOGRAPHIC CONTOUR INTERVAL SHOWN IS 2 FEET.
4. SAMPLING DATE: 10/26/2023.
5. SUGAR CREEK SURFACE WATER ELEVATION IS BASED ON AVERAGE OF USGS GAGE 05576250 FOR 10/26/2023.
6. ESTIMATED GROUNDWATER ELEVATION OF 552 FT MSL IS BASED ON VIBRATING WIRE PIEZOMETERS B-1CCR, B-2CCR, AND B-3CCR INSTALLED IN AND ADJACENT TO THE LAKESIDE ASH POND.
7. BOUNDARIES OF THE SITE FEATURES ARE APPROXIMATE.
8. (*) – DATA NOT USED TO CREATE CONTOURS.



8

SHEET NUMBER:

PROJECT ID: 240338/0014

DATE: APRIL 2025

POTENTIOMETRIC SURFACE MAP
4TH QUARTER 2023

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

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LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL/PIEZOMETER
- ○ PIEZOMETER
- ◕ CCR SURFACE IMPOUNDMENT WELL
- ▪ FGDS LANDFILL WELL
- ☒ SURFACE WATER MEASURING LOCATIONS
- NM NOT MEASURED

NOTES

1. FLIGHT DATE: APRIL 2023.
2. POTENTIOMETRIC CONTOUR INTERVAL SHOWN IS 5 FEET.
3. TOPOGRAPHIC CONTOUR INTERVAL SHOWN IS 2 FEET.
4. SAMPLING DATE: 2/22/2024.
5. SUGAR CREEK SURFACE WATER ELEVATION IS BASED ON AVERAGE OF USGS GAGE 05576250 FOR 2/22/2024.
6. "NM" – NOT MEASURED.
7. DEPICTED BOUNDARIES OF SITE FEATURES ARE APPROXIMATE.
8. (*) – DATA NOT USED TO CREATE CONTOURS.

T-6 NM
GP1 526.94
T-5 NM
AP-7 526.81
GP7 526.33
GP3 NM
T-4 NM
AP-6 528.61
RW-3 529.32
P104 526.85
G121 527.79
G122 526.57
P103 528.87
AW-2 524.38
P07D North 525.42
ACTIVE AREA
P07S West* 525.08
P07M East* 525.02
AP-8 535.82
AP-9 525.15
AP-1R 526.89
D2 NM
P106 523.24
P04D 528.08
LANDFILL UNIT 2
G120 537.11
D1 NM
P06D Middle 523.96
P06S North* 523.96
530
AP-10 534.68
DALLMAN ASH POND
D3 NM
P05D 531.68
P09S West* 525.22
AW-1 542.55
R111 528.06
G112 526.80
G113* 532.65
P09D East 526.22
LANDFILL UNIT 1
550
AP-11 523.68
SUGAR CREEK EL 520.16
AP-2A 528.99
D4 NM
R101 540.14
540
EL. 550.57
T-2 NM
AP-12 523.25
AP-3 526.08
EL. 546.43
CLARIFICATION POND
G110 532.56
550
560
AP-13 524.99
DRY
LAKESIDE ASH POND
L-5 NM
AP-14 537.88
L-3 NM
AP-5 567.95
T-1 NM
FORMER LIME POND
L-4 NM
FORMER LIME POND
FORMER LIME POND
AP-4 546.62
L-1 NM
EAST LAKE SHORE DRIVE
560

LAKE SPRINGFIELD
EL. 559.52

N

0 150 300 600
SCALE: IN FEET

9	SHEET NUMBER:	PROJECT ID: 240338/0014	DATE: APRIL 2025

POTENTIOMETRIC SURFACE MAP
1ST QUARTER 2024

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

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APPROVED BY: MTH	DESIGNED BY: MTH	DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

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LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL/PIEZOMETER
- ○ PIEZOMETER
- ◔ CCR SURFACE IMPOUNDMENT WELL
- ■ FGDS LANDFILL WELL
- ☒ SURFACE WATER MEASURING LOCATIONS
- NM NOT MEASURED

NOTES

1. FLIGHT DATE: APRIL 2023.
2. POTENTIOMETRIC CONTOUR INTERVAL SHOWN IS 5 FEET.
3. TOPOGRAPHIC CONTOUR INTERVAL SHOWN IS 2 FEET.
4. SAMPLING DATE: 5/13/2024.
5. SUGAR CREEK SURFACE WATER ELEVATION IS BASED ON AVERAGE OF USGS GAGE 05576250 FOR 5/13/2024.
6. "NM" - NOT MEASURED.
7. DEPICTED BOUNDARIES OF SITE FEATURES ARE APPROXIMATE.
8. (*) - DATA NOT USED TO CREATE CONTOURS.

T-6 529.88
GP1 526.90
T-5 533.43
AP-7 528.08
GP7 528.34
GP5 532.02
P104 524.26
T-4 533.46
AP-6 528.94
RW-3 528.91
G121 527.57
G122 525.61
P103 529.69
AW-2 524.96
P07D North 525.42
AP-8 535.64
ACTIVE AREA
P07S West* 525.08
P07M East* 525.02
530
AP-9 527.31
AP-1R 526.78
D2 550.40
P106 523.29
P04D 528.66
LANDFILL UNIT 2
G120 536.22
D1 549.14
P06S North* 523.96
P06D Middle 523.96
AP-10 534.24
DALLMAN ASH POND
D3 549.18
530
P05D 533.03
AW-1 541.79
G113* 532.92
R111 528.18
G112 526.31
P09S West* 526.36
P09D East 526.20
550
AP-11 525.66
SUGAR CREEK EL 523.60
AP-2A 531.43
D4 549.36
LANDFILL UNIT 1
R101 540.85
EL. 556.96
AP-12 526.33
AP-3 528.84
T-2 528.14
EL. 548.05
CLARIFICATION POND
G110 532.73
540
AP-13 527.89
DRY
LAKESIDE ASH POND
550
560
L-5 550.08
AP-14 537.81
L-3 553.68
AP-5 569.54
T-1 524.72
FORMER LIME POND
L-4 560.57
FORMER LIME POND
FORMER LIME POND
AP-4 545.84
L-1 553.37
EAST LAKE SHORE DRIVE
560

LAKE SPRINGFIELD
EL. 560.54

N

0 150 300 600
SCALE: IN FEET

10

SHEET NUMBER:

PROJECT ID: 240338/0014

DATE: APRIL 2025

POTENTIOMETRIC SURFACE MAP
2ND QUARTER 2024

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

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LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL/PIEZOMETER
- ○ PIEZOMETER
- ◔ CCR SURFACE IMPOUNDMENT WELL
- ■ FGDS LANDFILL WELL
- ☒ SURFACE WATER MEASURING LOCATIONS
- NM NOT MEASURED

NOTES

1. FLIGHT DATE: APRIL 2023.
2. POTENTIOMETRIC CONTOUR INTERVAL SHOWN IS 5 FEET.
3. TOPOGRAPHIC CONTOUR INTERVAL SHOWN IS 2 FEET.
4. SAMPLING DATE: 8/12/2024.
5. SUGAR CREEK SURFACE WATER ELEVATION IS BASED ON AVERAGE OF USGS GAGE 05576250 FOR 8/12/2024.
6. "NM" – NOT MEASURED.
7. DEPICTED BOUNDARIES OF SITE FEATURES ARE APPROXIMATE.
8. (*) – DATA NOT USED TO CREATE CONTOURS.

T-6 528.44
GP1 524.71
T-5 529.96
AP-7 525.87
GP7 NM
GP3 529.63
P104 522.33
T-4 530.28
AP-6 526.71
RW-3 527.11
G121 524.99
G122 522.07
P103 528.41
AW-2 521.96
P07D North 528.25
ACTIVE AREA
P07S West* 518.80
P07M East* 520.21
AP-8 538.33
AP-9 523.31
AP-1R 524.03
D2 548.42
P106 521.99
P04D 526.78
LANDFILL UNIT 2
G120 534.09
D1 545.72
P06S North* 522.57
P06D Middle 523.96
AP-10 532.11
DALLMAN ASH POND
D3 545.28
530
P05D 531.37
AW-1 538.85
G113* 529.88
R111 526.11
G112 524.33
P09S West* 524.43
P09D East 524.38
AP-2A 527.61
D4 546.39
LANDFILL UNIT 1
AP-11 522.28
SUGAR CREEK EL. 520.28
R101 539.24
540
AP-12 522.56
AP-3 525.75
EL. 545.69
CLARIFICATION POND
G110 530.20
550
AP-13 523.80
EL. NM
LAKESIDE ASH POND
560
L-5 549.96
AP-14 536.23
L-3 551.12
AP-5 566.56
T-1 521.15
FORMER LIME POND
L-4 558.76
FORMER LIME POND
FORMER LIME POND
AP-4 544.83
L-1 551.18
FAST LAKE SHORE DRIVE
560

LAKE SPRINGFIELD
EL. 559.95

N

0 150 300 600
SCALE: IN FEET

SHEET NUMBER: 11	PROJECT ID: 240338/0014	DATE: APRIL 2025	POTENTIOMETRIC SURFACE MAP 3RD QUARTER 2024
			PREPARED FOR CITY WATER, LIGHT, AND POWER SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

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LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL/PIEZOMETER
- ○ PIEZOMETER
- ◔ CCR SURFACE IMPOUNDMENT WELL
- ■ FGDS LANDFILL WELL
- ☒ SURFACE WATER MEASURING LOCATIONS
- NM NOT MEASURED

NOTES

1. FLIGHT DATE: APRIL 2023.
2. POTENTIOMETRIC CONTOUR INTERVAL SHOWN IS 5 FEET.
3. TOPOGRAPHIC CONTOUR INTERVAL SHOWN IS 2 FEET.
4. SAMPLING DATE: 11/12/2024.
5. SUGAR CREEK SURFACE WATER ELEVATION IS BASED ON AVERAGE OF USGS GAGE 05576250 FOR 11/12/2024.
6. "NM" – NOT MEASURED.
7. DEPICTED BOUNDARIES OF SITE FEATURES ARE APPROXIMATE.
8. (*) – DATA NOT USED TO CREATE CONTOURS.

T-6 527.30
T-5 529.20
AP-7 525.45
GP7 526.30
P104 NM
T-4 529.32
AP-6 526.65
RW-3 526.97
G121 519.80
G122 523.04
P103 NM
AW-2 523.74
AP-8 532.98
ACTIVE AREA
P07D North 523.88
P07S West* NM
P07M East* NM
AP-9 523.97
AP-7R 524.98
P106 NM
P04D NM
LANDFILL UNIT 2
D2 549.62
G120 534.98
D1 546.11
P06S North* NM
AP-10 531.91
DALLMAN ASH POND
D3 548.84
P06D Middle NM
P05D NM
P09S West* NM
AW-1 539.88
R111 527.16
G112 525.50
G113* 529.10
P09D East NM
530
LANDFILL UNIT 1
AP-11 522.67
EL 521.57
SUGAR CREEK
AP-2A 529.56
D4 547.48
R101 539.35
540
EL. NM
AP-12 522.68
AP-3 526.15
EL. 545.69
CLARIFICATION POND
550
G110 531.16
560
T-2 534.39
AP-13 522.60
EL. NM
LAKESIDE ASH POND
L-5 549.57
AP-14 534.96
T-1 521.64
AP-5 567.62
L-3 550.02
FORMER LIME POND
L-4 558.70
FORMER LIME POND
FORMER LIME POND
AP-4 544.75
L-1 550.69
EAST LAKE SHORE DRIVE

LAKE SPRINGFIELD
EL. 559.54

N

0 150 300 600
SCALE: IN FEET

12

SHEET NUMBER:

PROJECT ID: 240338/0014

DATE: APRIL 2025

POTENTIOMETRIC SURFACE MAP
4TH QUARTER 2024

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

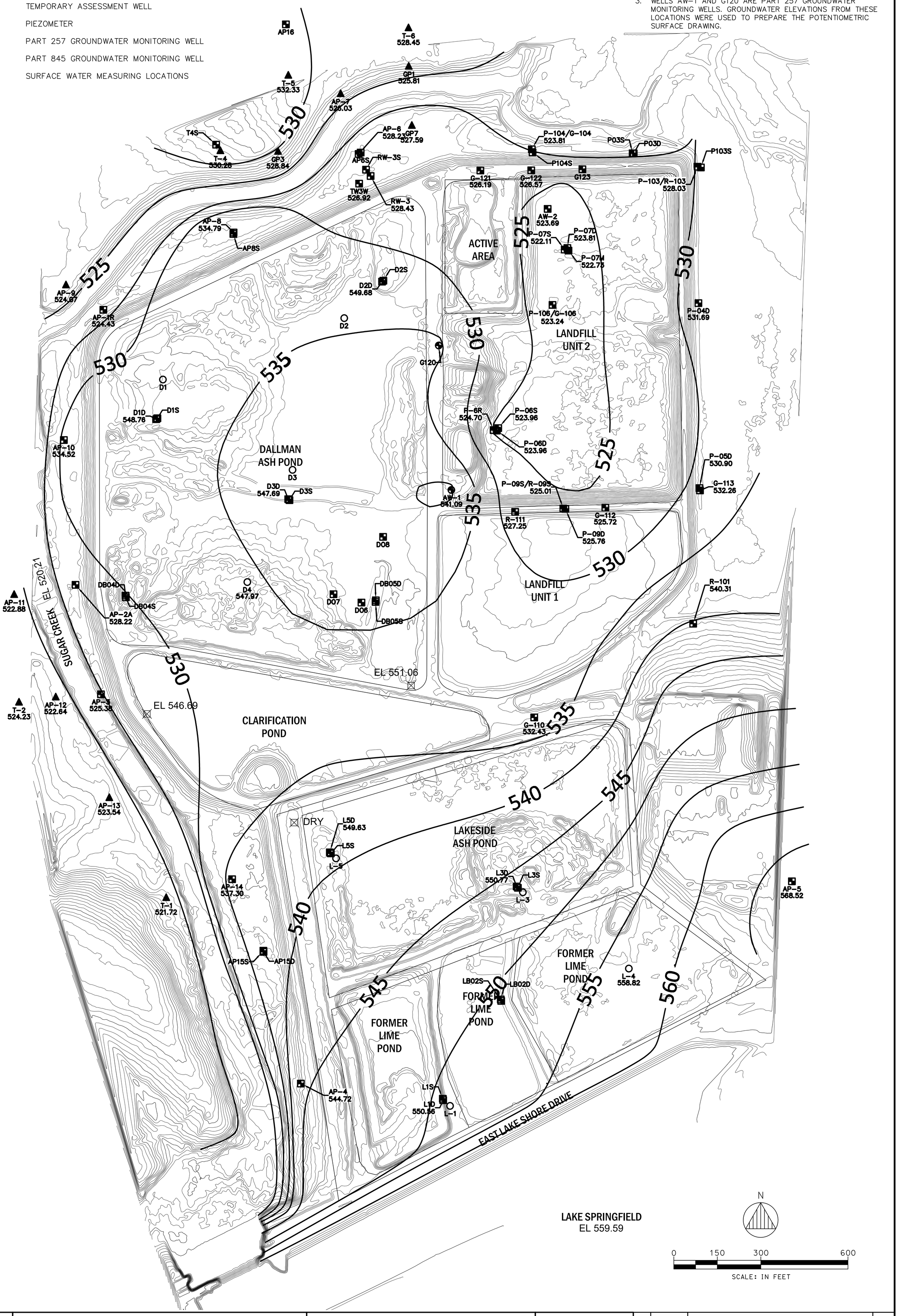
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LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL
- ○ PIEZOMETER
- ◔ PART 257 GROUNDWATER MONITORING WELL
- ◪ PART 845 GROUNDWATER MONITORING WELL
- ☒ SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.



LAKE SPRINGFIELD
EL 559.59

N

0 150 300 600
SCALE: IN FEET

FIG. 1

POTENTIOMETRIC SURFACE MAP
JANUARY 27, 2025

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2025
PROJECT ID: 240338/0014
SHEET NUMBER:

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NO.	DATE	REVISION DESCRIPTION	BY

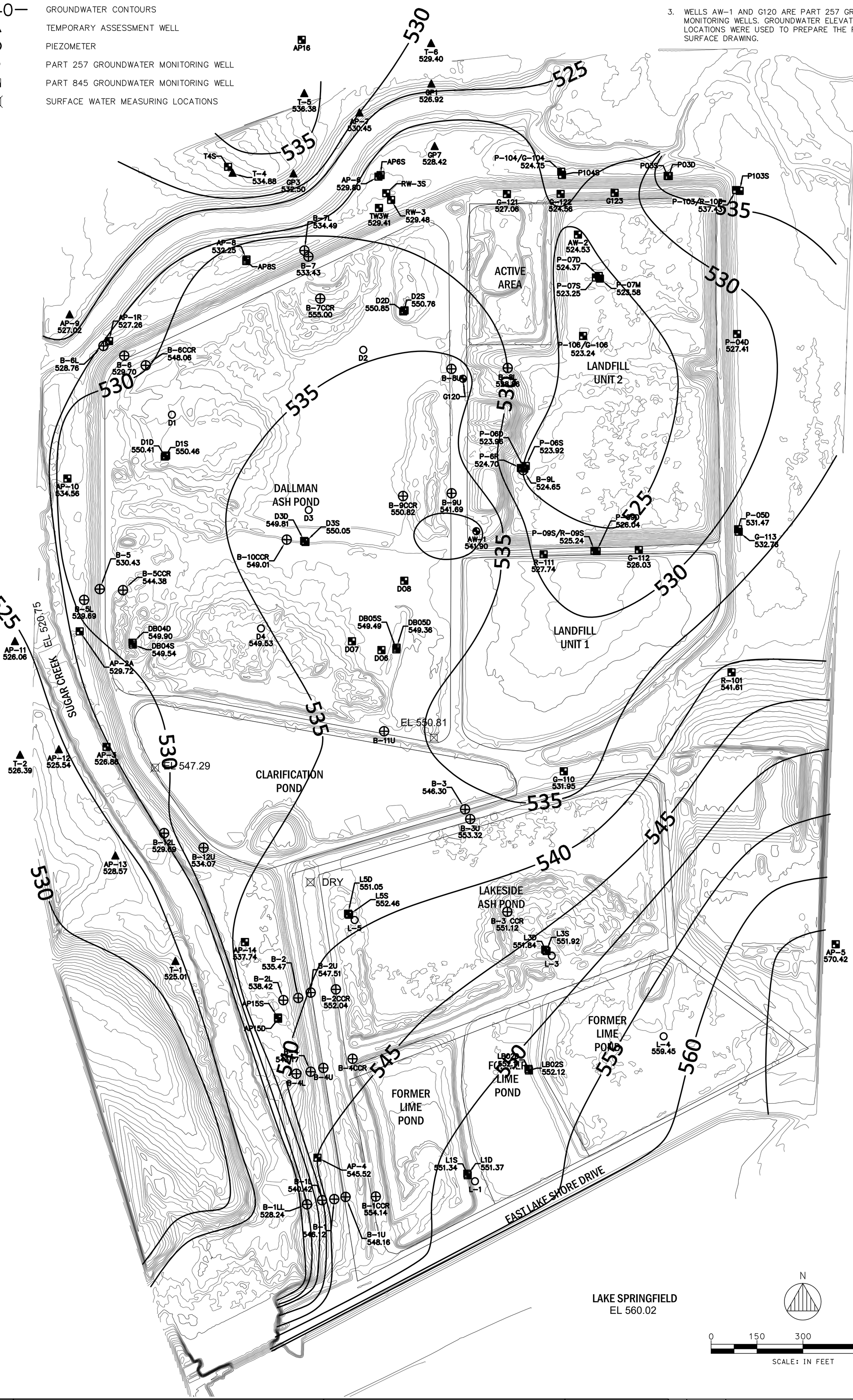
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LEGEND

- 550 — EXISTING GROUND CONTOURS
- 540 — GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL
- ○ PIEZOMETER
- ◕ PART 257 GROUNDWATER MONITORING WELL
- ▪ PART 845 GROUNDWATER MONITORING WELL
- ☒ SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.



LAKE SPRINGFIELD
EL 560.02

N

0 150 300 600
SCALE: IN FEET

FIG. 4

POTENTIOMETRIC SURFACE MAP
APRIL 20, 2025

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2025
PROJECT ID: 240338/0014
SHEET NUMBER:

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LEGEND

- 550 — EXISTING GROUND CONTOURS
- 540 — GROUNDWATER CONTOURS
- TEMPORARY ASSESSMENT WELL
- PIEZOMETER
- PART 257 GROUNDWATER MONITORING WELL
- PART 845 GROUNDWATER MONITORING WELL
- SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE APRIL 2023.
2. CONTOUR INTERVAL SHOWN IS 5 FEET.
3. WELLS AW-1 AND G120 ARE PART 257 GROUNDWATER MONITORING WELLS. GROUNDWATER ELEVATIONS FROM THESE LOCATIONS WERE USED TO PREPARE THE POTENTIOMETRIC SURFACE DRAWING.

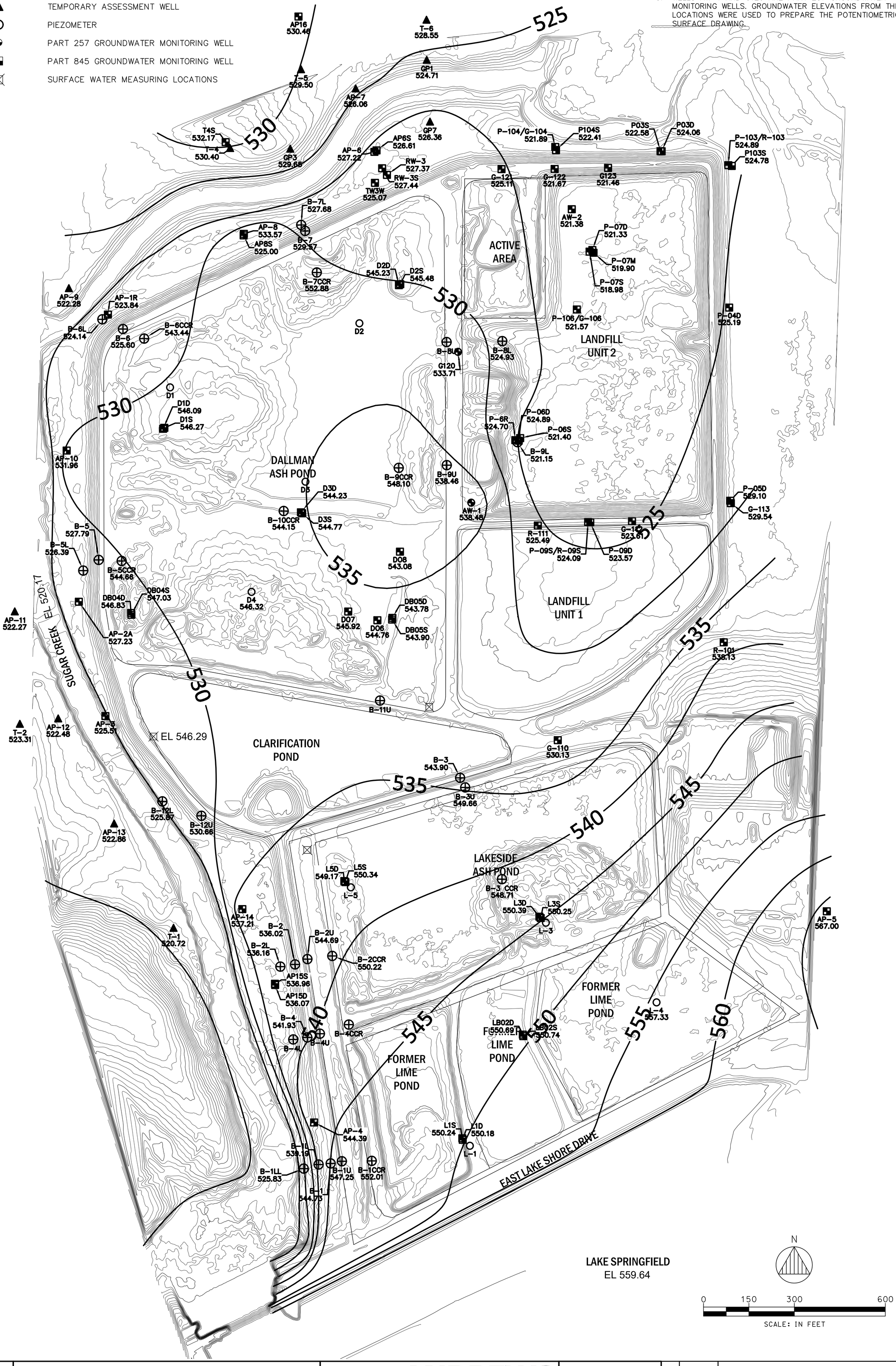


FIG. 8

SHEET NUMBER:

PROJECT ID: 240338/0014

DATE: AUGUST 2025

POTENTIOMETRIC SURFACE MAP
AUGUST 21, 2025

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

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Appendix C

Addendum to the 9/2025 Nature and Extent Report

CITY WATER, LIGHT AND POWER
CITY OF SPRINGFIELD, ILLINOIS
MISTY BUSCHER, MAYOR
SCOTT M. ROGERS, CHIEF UTILITY ENGINEER

VIA E-MAIL: dierich.andrea@epa.gov

September 30, 2026

Andrea Dierich
EPA Project Officer
US EPA, Region 5
77 W Jackson Blvd
Chicago, IL 60604

RE: CCR Surface Impoundments
Addendum to Nature and Extent Report September 2026

Dear Ms. Dierich:

In accordance with USEPA comments received by CWLP on August 11, 2026, provided herein is an addendum to the Nature and Extent Report for the CCR Surface Impoundments that was originally submitted on September 23, 2025. Specifically, this addendum provides additional information from the relevant portions of the Agreement to Resolve investigations completed in July 2026.

Should you have any questions or require additional information, please contact me at 217-757-8610 ext. 1110.

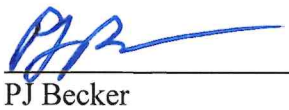
Sincerely,

PJ Becker
Environmental Health and Safety Manager

Certification of City Water, Light and Power

City of Springfield, Office of Public Utilities, d/b/a City Water, Light and Power provides the following certification as required by paragraph 300 of the Consent Agreement and Final Order effective January 14, 2025.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: 
Name: PJ Becker
Title: Environmental Health and Safety Manager
Date: 9/30/2026

City Water, Light & Power
Springfield, Illinois

CWLP CCR Surface Impoundments Addendum to the September 2025 Nature and Extent Report

40 CFR § 257.95 (g)

September 2026

Prepared for:

City Water, Light & Power
3100 Stevenson Drive
Springfield, Illinois

Prepared by:

ANDREWS ENGINEERING

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ILLINOIS | MISSOURI | INDIANA

EXECUTIVE SUMMARY

This Addendum supplements the September 2025 *Nature and Extent Report* for the Dallman and Lakeside Coal Combustion Residual (CCR) Surface Impoundments. Its purpose is to incorporate information collected pursuant to the Agreement to Resolve (AOR), address comments received from the U.S. Environmental Protection Agency (EPA) on August 11, 2026, and update the characterization of arsenic occurrence, distribution, and potential migration from CCR source areas.

The AOR investigation included advancement of additional borings; installation of monitoring wells AW4, AW5, AW6, and AP17; collection of groundwater elevation and quality data; and refinement of hydrogeologic interpretations. Historical groundwater monitoring data and information generated during the AOR investigation were evaluated to update the conceptual site model, groundwater flow interpretations, arsenic plume delineation, and arsenic release calculations. The resulting evaluation refines the hydrogeologic conceptual site model presented in the June 2025 *Nature and Extent Report*, the September 2025 *Updated Nature and Extent Report*, and the September 2025 *Flow Path Report*.

The additional investigation refined the understanding of several hydrogeologic features identified during EPA's review of previous submittals. Available hydrogeologic data indicate that the shallow sand unit is a potential groundwater migration pathway where saturated and hydraulically connected conditions exist. The shallow sand unit has been incorporated into the conceptual site model and the evaluation of potential contaminant migration. Hydrostratigraphic mapping and geologic cross-sections indicate that the unit remains limited in thickness, lateral extent, and overall areal distribution across much of the Site. Although portions of the shallow sand unit may be hydraulically connected to adjacent groundwater-bearing intervals, the unit does not form a laterally continuous groundwater-bearing zone beneath or surrounding the CCR units. While the shallow sand unit may facilitate localized groundwater migration in certain areas, groundwater monitoring data indicate that arsenic impacts remain primarily associated with the basal sand/weathered-bedrock aquifer.

The investigation also provided additional information regarding the former creek alignment east of the Dallman Ash Pond. Portions of the former creek channel contain soft alluvial and fill materials associated with adjacent groundwater-bearing intervals and saturated sand deposits capable of transmitting groundwater more readily than adjacent cohesive deposits. Consequently, portions of the former creek channel are considered potential localized groundwater flow and preferential migration pathways and have been incorporated into the conceptual site model. These features may have contributed to groundwater and constituent migration from hydraulically upgradient CCR source areas where favorable hydraulic connections exist.

Groundwater monitoring data continue to demonstrate the presence of arsenic within the basal sand/weathered-bedrock aquifer. The occurrence of arsenic within this hydrostratigraphic interval, when evaluated together with hydraulic and hydrogeologic information, supports hydraulic communication between CCR source areas and the uppermost aquifer. The available data support a conceptual model in which arsenic migration to the basal sand/weathered-bedrock aquifer likely results from long-term downward migration under sustained hydraulic gradients associated with nearly five decades of CCR management activities, potentially enhanced by localized groundwater migration pathways associated with the shallow sand unit and portions of the former creek channel where favorable hydraulic conditions exist. While the additional investigation improves understanding of potential migration pathways, the available data do not identify a single discrete migration pathway that accounts for all observed groundwater impacts.

Groundwater monitoring results collected under the AOR were incorporated into an evaluation of arsenic distribution at the Site. The expanded monitoring network improves spatial coverage and provides additional confidence in the delineation of the arsenic plume. GWSDAT analyses indicate that arsenic impacts remain primarily associated with groundwater within the basal sand/weathered-bedrock aquifer. Incorporation of the AOR monitoring locations improved delineation of plume boundaries and refined the understanding of arsenic migration pathways. Although the overall plume configuration remains generally consistent with historical groundwater monitoring observations, temporal variability is evident in plume area, concentration distributions, and normalized dissolved plume mass. The additional data supports refinement of the conceptual site model and groundwater release characterization.

Arsenic release calculations were completed using the expanded groundwater monitoring dataset and revised plume interpretation developed from the AOR investigation. Differences between the 2025 and 2026 estimates primarily reflect improved delineation of plume boundaries and concentration distributions resulting from additional monitoring data rather than evidence of a substantial change in release conditions. Collectively, the AOR investigation addresses EPA's concerns regarding the hydrogeologic significance of the shallow sand unit, the former creek channel, and hydraulic communication between CCR source areas and the uppermost aquifer while improving confidence in the delineation of the arsenic plume.

Principal Findings

- The additional AOR investigation refined the hydrogeologic conceptual site model and improved understanding of groundwater migration pathways.
- The shallow sand unit is recognized as a potential groundwater migration pathway where saturated and hydraulically connected conditions exist.
- Portions of the former creek channel may function as localized groundwater flow and preferential migration pathways.

- Groundwater quality, hydraulic, and hydrogeologic information supports hydraulic communication between CCR source areas and the basal sand/weathered-bedrock interval.
- Available data support a conceptual model involving long-term downward migration under sustained hydraulic gradients, potentially enhanced by localized preferential pathways.
- Additional monitoring wells improved delineation of arsenic plume boundaries and reduced uncertainty in plume geometry.
- Arsenic concentrations above the groundwater protection standard (GWPS) remain primarily associated with monitoring locations completed within the basal sand/weathered-bedrock interval.
- Arsenic release calculations reflect improved plume delineation and enhanced characterization resulting from additional monitoring locations.
- The AOR investigation refined delineation and characterization of the arsenic release and improved confidence in the interpretation of its nature and extent.

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Appendix F: GWSDAT Input Data and Output Graphics
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1. INTRODUCTION

1.1 Background

City Water, Light, and Power (CWLP) submitted the September 2025 *Nature and Extent Report* to document the occurrence and distribution of groundwater impacts associated with the Dallman Ash Pond (DAP) and Lakeside Ash Pond (LAP) coal combustion residual (CCR) units and to evaluate potential relationships between those groundwater conditions and the CCR units. The DAP and LAP CCR units are located at the CWLP generating station site in Springfield, Illinois (Figure 1). The report evaluated available groundwater monitoring, hydrogeologic, and analytical data and presented the conceptual understanding of the nature and extent of arsenic impacts within the uppermost aquifer.

Following its review of the *Nature and Extent Report* and associated CCR corrective action documents, EPA issued comments on August 11, 2026, requesting additional evaluation of groundwater migration pathways, incorporation of newly collected hydrogeologic information, and preparation of an addendum. EPA specifically requested additional evaluation of the shallow sand unit, former creek alignment and fill areas, hydraulic communication between the CCR units and the uppermost aquifer, information generated pursuant to the Agreement to Resolve (AOR), arsenic release characterization and calculations, and groundwater contamination plume maps. This Addendum was prepared to address those comments and incorporate the results of additional investigation completed since submittal of the September 2025 *Nature and Extent Report*.

Since issuance of the September 2025 report, CWLP has completed additional hydrogeologic investigation and groundwater monitoring activities pursuant to the AOR. The resulting information has been incorporated into this Addendum and evaluated together with historical groundwater monitoring data to refine groundwater flow interpretations, the conceptual site model, arsenic plume delineation, and arsenic release estimates. The evaluation refines the hydrogeologic conceptual site model previously developed for the Site by incorporating additional information regarding groundwater migration pathways, hydraulic communication between hydrostratigraphic units, and the distribution of arsenic impacts within the uppermost aquifer. Consistent with EPA's comments, the revised evaluation considers the shallow sand unit and portions of the former creek alignment as potential groundwater migration pathways where favorable hydraulic conditions exist and reevaluates their relevance to arsenic migration and plume development.

1.2 Objectives

The objectives of this Addendum are to present the results of the investigation completed pursuant to the AOR and evaluate how the additional information affects the conceptual understanding of groundwater impacts associated with the CCR units. Specifically, this Addendum:

- Presents new groundwater monitoring and flow-path information collected pursuant to the AOR.
- Updates the conceptual site model to incorporate additional hydrogeologic information.
- Evaluates the hydrogeologic significance of the shallow sand unit and former creek alignment as potential groundwater migration pathways.
- Evaluates groundwater migration pathways and hydraulic communication between the CCR units and the uppermost aquifer.
- Reevaluates the nature and extent of arsenic in groundwater and its potential relationship to CCR source areas.
- Updates arsenic release calculations using the expanded monitoring dataset.
- Presents groundwater plume maps developed using historical and newly collected groundwater monitoring data.
- Assesses whether the additional information materially changes previous interpretations regarding groundwater impacts, plume geometry, and arsenic occurrence within the uppermost aquifer.

The evaluation presented herein focuses on arsenic because it is the Appendix IV constituent currently defining the groundwater impact area associated with the DAP and LAP CCR units. Arsenic was specifically identified by EPA for additional evaluation as part of the requested Nature and Extent Addendum and remains the primary constituent used to evaluate the nature and extent of groundwater impacts associated with the CCR units.

2. SUMMARY OF AGREEMENT TO RESOLVE INVESTIGATION

2.1 Investigation Activities

Additional investigation was completed pursuant to the AOR to further evaluate groundwater conditions, groundwater migration pathways, hydraulic communication between the CCR units and the uppermost aquifer, and the distribution of arsenic impacts associated with the DAP and LAP CCR units. The investigation was designed to address issues identified by EPA during its review of the September 2025 *Nature and Extent Report* and *Flow Path Report*, including the hydrogeologic significance of the shallow sand unit, the former creek alignment and fill area east

of the Dallman Ash Pond, hydraulic communication between hydrostratigraphic units, and delineation of arsenic impacts downgradient of the Dallman Ash Pond.

2.1.1 Borings Completed

An additional subsurface investigation was completed to provide hydrogeologic information in areas identified during the EPA's review and to support the installation of new monitoring locations. The investigation program included advancement of AW-series borings (AW4, AW5, and AW6) and an AP-series boring (AP17).

Information obtained from these borings was used to refine site stratigraphic interpretations; evaluate groundwater conditions, potential groundwater migration pathways, and hydrogeologic conditions associated with the shallow sand unit and former creek alignment; and support development of geologic cross-sections, hydrostratigraphic mapping, and groundwater flow-path interpretations. The borings also provided additional information regarding hydraulic communication between CCR source areas and the uppermost aquifer. Boring logs completed during the AOR investigation are provided in Appendix A.

2.1.2 Monitoring Wells Installed

Additional groundwater monitoring wells were installed to improve delineation of groundwater conditions and arsenic impacts in areas where existing monitoring coverage was limited. The wells also provide additional hydrogeologic and groundwater quality information in areas identified by EPA as requiring further evaluation.

The AW-series and AP-series monitoring locations were installed to improve understanding of groundwater conditions downgradient of the Dallman Ash Pond, evaluate potential groundwater migration pathways associated with the shallow sand unit and former creek alignment, assess hydraulic communication between the CCR units and the uppermost aquifer, and improve delineation of arsenic impacts within the uppermost aquifer. Monitoring well locations are shown on Figure 2 and construction details are provided in Appendix B.

As agreed in the AOR, the new monitoring wells were sampled during the second- and third-quarter 2026 groundwater monitoring events.

2.1.3 Groundwater Monitoring

Groundwater monitoring was completed following installation and development of the new monitoring wells. Monitoring activities included:

- Collection of groundwater samples from new and existing monitoring wells;
- Analysis of groundwater samples for arsenic and other site monitoring parameters;

- Measurement of groundwater elevations; and
- Incorporation of the resulting data into the site groundwater monitoring database.

The expanded groundwater monitoring dataset was used to update groundwater flow interpretations, evaluate arsenic concentrations within the uppermost aquifer, assess hydraulic communication between the CCR source areas and the basal sand/weathered-bedrock aquifer, refine understanding of potential groundwater migration pathways associated with the shallow sand unit and former creek alignment, develop plume maps, and support the nature and extent evaluation presented in this Addendum. Groundwater analytical results generated during the monitoring program are provided in Appendix C.

3. HYDROGEOLOGIC INTERPRETATION

3.1 Shallow Sand Unit

Additional hydrogeologic information collected under the AOR was evaluated together with historical boring logs, monitoring well data, and geologic cross-sections to reassess the distribution and hydraulic significance of the shallow sand unit. The shallow sand unit occurs as a discontinuous geologic feature within the upper portion of the alluvial sequence and exhibits variable thickness and lateral continuity across the Site. Available boring logs and cross-sections indicate that the unit is not laterally extensive and is absent in significant portions of the study area. Revised geologic cross-section G-G' and new cross-sections Q-Q' and R-R', which illustrate hydrostratigraphic conditions at the new AW and AP borings, are presented in Appendix D.

The distribution of the shallow sand unit was further evaluated using hydrostratigraphic isopach mapping completed as part of the *Flow Path Report* investigation. Hydrostratigraphic structure contour and isopach maps originally developed for the September 2025 *Flow Path Report* were updated to incorporate boring information from AW4, AW5, AW6, and AP17. The revised mapping confirms the previously interpreted extent of the shallow sand unit and does not materially alter the conceptual understanding of its distribution beneath the Site. Shallow Sand Surface and Shallow Sand Isopach maps are included in Appendix E. The isopach mapping indicates that the shallow sand unit is discontinuous and exhibits limited thickness and lateral extent across much of the Site. The mapped distribution supports the interpretation that the shallow sand occurs as isolated to semi-continuous depositional features rather than a laterally extensive aquifer unit. The isopach maps also provide a basis for evaluating areas where saturated shallow sand may be hydraulically connected to adjacent groundwater-bearing units and therefore capable of transmitting groundwater and dissolved constituents.

Groundwater monitoring and subsurface investigations indicate that portions of the shallow sand unit are saturated and hydraulically connected to adjacent unconsolidated deposits. Installation of monitoring wells AP15S and AP15D confirmed the presence of a saturated shallow sand

interval west of Lakeside Ash Pond and provided additional information regarding hydraulic relationships between the shallow sand unit and the underlying basal sand aquifer. Where saturated conditions and hydraulic connectivity exist, the shallow sand unit has the potential to transmit groundwater and dissolved constituents and, therefore, is recognized as a potential groundwater migration pathway. Available hydrogeologic data indicate that hydraulic connectivity exists within portions of the shallow sand unit, and those portions have been incorporated into the conceptual site model as groundwater migration pathways. While localized hydraulic connectivity has been identified, the mapped distribution indicates that the shallow sand unit remains limited in overall areal extent and occurs as discontinuous depositional features rather than a regionally continuous aquifer. Consequently, any groundwater migration associated with the shallow sand unit is expected to be localized to areas where saturated and hydraulically connected conditions exist.

The additional monitoring wells installed pursuant to the AOR provide improved spatial control in areas where the shallow sand unit is present. These data support recognition of the shallow sand as a localized groundwater migration pathway while also indicating that groundwater impacts associated with the arsenic plume remain principally associated with the basal sand/weathered-bedrock aquifer.

3.2 Former Creek Channel / Fill Area

Historical boring logs, recent AOR borings, geologic cross-sections, and hydrostratigraphic isopach mapping were reviewed to evaluate the former creek alignment along the eastern side of the Dallman Ash Pond. The combined data indicate that portions of the former channel contain soft alluvial and fill materials that differ from the surrounding fine-grained deposits. Historical boring logs P-01D and P-02D, as well as more recent borings B-4 and B-8U, indicate that the clay/fill intervals were generally described as moist or wet rather than saturated. While the boring logs do not consistently characterize the fill materials themselves as saturated, the data indicate the presence of groundwater-bearing intervals and saturated sand deposits adjacent to and beneath portions of the former channel area. These conditions suggest that the former creek corridor may locally influence groundwater movement and contaminant migration. The distribution of these materials generally follows the mapped alignment of the former creek channel and is consistent with observations documented in both historical and recent borings. Supporting boring logs and subsurface information are provided in Appendix A.

Site development activities associated with construction of the surface impoundments likely altered portions of the original creek channel through excavation and placement of engineered fill materials beneath embankment structures. Consequently, the available information does not support interpretation of a continuous preferential pathway beneath the Site. However, portions of the former creek alignment that were not excavated or substantially modified may retain hydraulically conductive alluvial materials capable of transmitting groundwater more readily than

adjacent cohesive deposits. Although the boring logs do not consistently document saturated conditions within the clay/fill materials themselves, the occurrence of adjacent saturated sands, groundwater-bearing intervals, and low-strength alluvial deposits indicates that portions of the former creek alignment may provide localized hydraulic connectivity relative to the surrounding cohesive deposits.

The available data support the interpretation that portions of the former creek alignment along the eastern margin of the Dallman Ash Pond may function as localized groundwater flow paths and preferential migration pathways. Groundwater monitoring and subsurface information indicate that these materials may provide localized hydraulic communication between the CCR source area and underlying groundwater-bearing units and, therefore, represent an important component of the conceptual site model.

Hydrostratigraphic structure contour and isopach maps (Appendix E) demonstrate that incorporating the AOR boring information generally corroborates the hydrogeologic framework developed for the September 2025 *Flow Path Report* while refining interpretations of localized hydrostratigraphic variability relevant to groundwater migration pathways. The figures depict the upper cohesive deposit surface and thickness, lower cohesive deposit surface and thickness, basal sand surface and thickness, and bedrock surface. These figures have been revised to incorporate information obtained from the new borings.

Geologic contacts encountered in the AOR borings were generally consistent with those documented in adjacent historical borings. As a result, incorporation of the new drilling information did not materially modify previously interpreted hydrostratigraphic surfaces, unit thicknesses, or depositional relationships. The mapping, therefore, confirms the hydrogeologic framework developed for the September 2025 *Flow Path Report* while providing additional confidence in the interpreted horizontal and vertical extent of the principal hydrostratigraphic units.

Historical boring logs, including P02D, together with the recent AOR investigation, indicate that portions of the former creek corridor contain soft alluvial and fill materials associated with adjacent groundwater-bearing intervals. These observations support consideration of the former creek alignment as a potential preferential groundwater migration pathway in portions of the Site where hydraulic connectivity exists.

3.3 Hydraulic Communication to the Basal Sand Aquifer

Groundwater monitoring data collected since initiation of assessment monitoring continue to document arsenic within the basal sand and weathered-bedrock interval that comprises the uppermost aquifer beneath the CCR units. Arsenic concentrations above the groundwater protection standard have been documented in multiple monitoring wells completed within this interval, including historical and recently installed monitoring locations.

The occurrence of arsenic within the uppermost aquifer indicates that constituent migration from CCR source areas has occurred. Groundwater impacts within the basal sand and weathered-bedrock interval are consistent with the long operational history of the CCR units and the downward hydraulic gradients identified beneath the surface impoundments. The Dallman and Lakeside surface impoundments have been present since approximately 1976, resulting in nearly five decades of potential source loading. Under sustained downward gradients, long-term vertical migration through lower-permeability deposits provides a plausible mechanism for constituent transport to the uppermost aquifer.

Groundwater monitoring results indicate that arsenic is present in wells located along the western, northern, and eastern portions of the Dallman Ash Pond area. The presence of arsenic within wells completed in the basal sand and weathered-bedrock interval supports hydraulic communication between the CCR source areas and the uppermost aquifer. Collectively, groundwater quality, hydraulic, and hydrogeologic observations support hydraulic communication between CCR source areas and the uppermost aquifer and indicate that one or more groundwater migration mechanisms represented in the conceptual site model are operative at the Site.

For purposes of the Nature and Extent evaluation, the interpreted groundwater migration pathway represents the inferred route through which groundwater and dissolved constituents may migrate from CCR source areas to and through the uppermost aquifer. The pathway may include long-term downward migration through lower-permeability deposits, together with localized preferential migration through saturated creek-fill materials, shallow sand, portions of the former creek alignment, basal sand, and hydraulically connected weathered materials near the bedrock interface. The occurrence, thickness, continuity, and relative hydraulic contribution of these materials vary across the Site.

Groundwater elevation data collected throughout the monitoring period indicate that the regional groundwater flow regime is modified by localized hydraulic controls at the Site. Potentiometric surface evaluations consistently indicate the presence of a groundwater trough associated with the Flue Gas Desulfurization System (FGDS) disposal area, which induces an eastward groundwater-flow component from portions of the Dallman Ash Pond area toward the FGDS area. In addition, Sugar Creek functions as a local groundwater convergence feature and exerts hydraulic control along portions of the northern and western site boundaries. These hydraulic features appear to influence groundwater migration within the uppermost aquifer and represent important components of the conceptual site model.

The available data do not identify a single discrete pathway that accounts for all observed groundwater impacts. Likewise, the presence of arsenic within the basal sand and weathered-bedrock interval does not require a single, uninterrupted preferential pathway extending directly from the bottom of the surface impoundments to the uppermost aquifer. Rather, the available

evidence is consistent with a conceptual model (Figure 3) involving long-term downward migration through lower-permeability deposits under sustained hydraulic gradients, potentially supplemented by localized preferential migration through portions of the shallow sand and former creek corridor where hydraulic connectivity exists.

Once constituents reach the uppermost aquifer, groundwater and dissolved constituents may move laterally through the interconnected groundwater-bearing materials comprising the interpreted groundwater migration pathway. Depending on location, these materials include creek-fill deposits, shallow sand, basal sand, and hydraulically connected weathered materials near the bedrock interface. The geologic cross-sections and isopach drawings support interpretation of the basal sand and weathered-bedrock interval as an important groundwater-bearing component of this pathway beneath the Site.

The occurrence of arsenic within the uppermost aquifer supports hydraulic communication between CCR source areas and the groundwater-bearing basal sand/weathered-bedrock interval. This conclusion refines previous interpretations regarding the degree of hydraulic separation between the CCR units and the uppermost aquifer and incorporates the additional information collected during the AOR investigation. The AOR investigation and hydrogeologic evaluation indicate that groundwater impacts observed within the basal sand/weathered-bedrock aquifer are consistent with long-term migration from CCR source areas under sustained downward hydraulic gradients. Available data further indicate that localized migration may be enhanced by hydrogeologic features such as the shallow sand unit and portions of the former creek alignment where favorable hydraulic conditions exist. Collectively, the available information supports a conceptual model in which constituent migration reflects a combination of long-term downward migration through lower-permeability deposits and localized preferential migration through more permeable hydrogeologic features, rather than movement through a single discrete or uniformly continuous pathway. This interpretation addresses EPA comments regarding hydraulic communication, groundwater migration pathways, and the occurrence of arsenic within the uppermost aquifer.

4. GROUNDWATER MONITORING RESULTS

4.1 Groundwater Elevations

Groundwater elevation data collected during the AOR investigation were incorporated into a potentiometric surface evaluation of the uppermost aquifer. The dataset includes water-level measurements obtained from newly installed monitoring wells AW4, AW5, AW6, AP15D, AP15S, AP16, and AP17, in addition to the existing monitoring network. Groundwater elevation measurements collected between November 2025 and July 2026 are summarized in Table 1 and provide a basis for evaluating groundwater flow conditions and hydraulic relationships among

hydrostratigraphic units during the AOR investigation. July 2026 groundwater elevations were used to prepare the potentiometric surface map presented in Figure 4.

Groundwater elevations summarized in Table 1 indicate generally consistent groundwater conditions over the monitoring period and support interpretation of a stable groundwater flow regime within the uppermost aquifer. Groundwater movement within the basal sand/weathered-bedrock aquifer remains generally controlled by regional topography and convergence toward Sugar Creek. However, potentiometric surface maps consistently indicate the presence of a localized groundwater trough associated with the FGDS Development Unit 2 area that modifies the regional flow regime and induces an eastward component of groundwater flow from portions of the Dallman Ash Pond area toward the FGDS area.

Groundwater elevations further indicate convergence toward Sugar Creek from both the east and west, supporting interpretation of Sugar Creek as a local groundwater convergence feature. The persistence of these groundwater flow characteristics throughout the monitoring period suggests that localized hydraulic controls associated with the FGDS Development Unit 2 area and Sugar Creek continue to influence groundwater movement and arsenic plume geometry within the uppermost aquifer.

The additional monitoring locations installed pursuant to the AOR provide improved water-level control in areas identified by EPA for further evaluation, including the shallow sand unit and former creek alignment. These data improve understanding of groundwater migration pathways, hydraulic communication between the CCR source areas and the uppermost aquifer, and the hydrogeologic conditions influencing arsenic occurrence and migration.

Overall, the groundwater elevation dataset supports and refines the conceptual site model presented in the September 2025 *Nature and Extent Report* and provides additional confidence regarding groundwater flow directions, hydraulic relationships between monitored hydrostratigraphic units, and migration pathways incorporated into the conceptual site model.

4.2 Arsenic Results

Groundwater samples collected during the AOR investigation were analyzed for arsenic, and the results were incorporated into the site groundwater monitoring database. The new monitoring locations provide additional information regarding arsenic concentrations in areas where plume boundaries and potential migration pathways require further evaluation. Arsenic concentrations detected in the newly installed monitoring wells are summarized in Table 2. Arsenic was detected in all AOR monitoring wells, with the highest concentrations occurring at AW6 and concentrations near or below the groundwater protection standard occurring at AW4, AW5, and AP17. These results provide additional information regarding arsenic distribution downgradient of the Dallman Ash Pond and improve delineation of plume geometry within the uppermost aquifer.

Complete groundwater analytical data are provided in Appendix C. Arsenic concentrations detected in AW4, AW5, AW6, and AP17 generally fall within the range of concentrations previously observed in downgradient monitoring locations and are consistent with the existing conceptual understanding of plume distribution.

Among the newly installed monitoring locations, the highest arsenic concentrations were observed at AW6, while lower concentrations were observed at AW4, AW5, and AP17. The occurrence of arsenic in these locations is consistent with previously documented impacts within the basal sand/weathered-bedrock aquifer and supports interpretation of hydraulic communication between CCR source areas and the uppermost aquifer. The concentrations detected at these wells generally corroborate previously interpreted plume geometry while providing additional control on plume margins and improved delineation of arsenic impacts downgradient of the DAP.

The dataset was incorporated into the GWSDAT evaluation and plume mapping presented later in this Addendum. The additional analytical data improve confidence in plume interpretation, provide a more complete characterization of arsenic distribution within the uppermost aquifer, and improve understanding of groundwater migration pathways and plume geometry in areas previously characterized by greater uncertainty.

4.3 Data Evaluation

The AOR monitoring wells were installed to improve understanding of groundwater conditions in areas where additional information was needed to evaluate groundwater migration pathways, assess hydraulic communication, and refine delineation of arsenic impacts. Data obtained from AW4, AW5, AW6, and AP17, together with other AOR investigation results, provide improved spatial coverage between existing monitoring locations and allow a more detailed evaluation of groundwater quality conditions near the DAP.

The additional data support the interpretation that arsenic impacts remain primarily associated with groundwater within the basal sand/weathered-bedrock aquifer. The new monitoring locations also provide information relevant to the evaluation of the shallow sand unit and former creek alignment discussed in Section 3. While these data improve understanding of groundwater migration pathways and hydraulic communication, they do not indicate previously unidentified, widespread arsenic impacts beyond the plume boundaries interpreted in the September 2025 *Nature and Extent Report*. Rather, the results improve confidence in the previously interpreted nature and extent of groundwater impacts while reducing uncertainty regarding plume boundaries and migration pathways.

The expanded monitoring network reduces uncertainty regarding plume geometry and improves delineation of the arsenic plume for groundwater mapping and release calculations. Incorporating the new data into the GWSDAT analysis refined plume contours and associated plume metrics and improved understanding of migration pathways and the distribution of arsenic impacts within the uppermost aquifer.

5. NATURE AND EXTENT OF ARSENIC IMPACTS

5.1 GWSDAT Evaluation

The GroundWater Spatiotemporal Data Analysis Tool (GWSDAT) is a widely used, peer-reviewed groundwater monitoring data evaluation tool that has been applied to plume characterization, plume stability assessment, monitoring network optimization, and site closure evaluations. The methodology has been described in peer-reviewed publications and has been the subject of EPA-sponsored technical training through the CLU-IN program[1].

Groundwater arsenic data were evaluated using GWSDAT, which applies spatiotemporal smoothing and regression techniques to groundwater monitoring data to generate continuous concentration surfaces, evaluate plume behavior through time, and calculate diagnostic plume metrics including plume area, average plume concentration, and normalized plume mass[2]. The evaluation incorporated historical groundwater monitoring data together with data obtained from monitoring wells installed pursuant to the AOR, including AW4, AW5, AW6, and AP17. The dataset included groundwater analytical results, monitoring well coordinates, and groundwater elevation information from 2016 through July 2026. GWSDAT input data and output files are provided in Appendix F. Documentation for the GWSDAT groundwater monitoring data evaluation tool is provided in Appendix G.

GWSDAT analyses were completed using laboratory-reported analytical values. Non-detect results were retained as reported in the dataset and were not adjusted through substitution of reporting limits or fractions of reporting limits. Accordingly, calculated plume metrics reflect the monitored groundwater dataset without the introduction of additional conservatism associated with non-detect substitution methods.

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[1] U.S. Environmental Protection Agency (USEPA), CLU-IN. *Plume Stability Analyses with GWSDAT*. CLU-IN Technical Webinar, sponsored by USEPA Region 9. Available at: https://clu-in.org/conf/tio/GWSDAT/ (accessed September 2026).

[2] Jones, W.R., Spence, M.J., and Bonte, M. (2015). *Analyzing Groundwater Quality Data and Contamination Plumes with GWSDAT*. Groundwater, 53(4), 513-514. https://doi.org/10.1111/gwat.12340.

The evolution of the arsenic plume is depicted in the output file included in Appendix F. GWSDAT reports dissolved plume mass as kilograms per foot (kg/ft), representing contaminant mass normalized to saturated plume thickness. Consequently, plume mass values provide a consistent basis for evaluating relative changes in plume magnitude and plume behavior through time.

GWSDAT plume statistics were calculated using an arsenic threshold concentration of 23.9 µg/L corresponding to the arsenic groundwater protection standard (GWPS). The effective porosity value is based on published saturation water content data for sandy materials reported by Sharp-Hansen et al., which indicate a representative range of approximately 37 to 49 percent. The mean value of 43 percent was adopted as representative of the basal sand/weathered-bedrock aquifer for purposes of plume metric evaluation. Use of the 23.9 µg/L threshold concentration is consistent with the arsenic groundwater protection standard and provides a consistent basis for evaluating changes in the delineated plume through time.

GWSDAT results indicate that the delineated arsenic plume remains localized and generally consistent with historical groundwater monitoring observations, although temporal variability is evident in plume area, concentration distributions, and normalized dissolved plume mass (Figure 5). Observed fluctuations likely reflect a combination of changes in groundwater conditions, monitoring density, sampling frequency, and interpolation associated with expansion of the monitoring network. Incorporation of the AOR monitoring locations improves confidence in plume delineation and provides a more robust characterization of plume geometry and concentration distributions. The evaluation provides a more refined understanding of plume geometry, plume boundaries, and concentration distributions through incorporation of the AOR monitoring locations and the expanded 2026 analytical dataset. Resulting plume metrics are shown on the figures in Appendix F. The GWSDAT evaluation provides additional quantitative support for characterization of plume geometry, arsenic distribution, and groundwater migration patterns and serves as the basis for the revised nature and extent interpretation presented in this Addendum. Recent applications of GWSDAT have demonstrated its utility for plume characterization, plume stability assessment, evaluation of monitoring network adequacy, groundwater trend analysis, and support of regulatory decision-making at contaminated groundwater sites.[3] The GWSDAT results provide additional information for evaluating the extent of groundwater impacts identified through the AOR investigation and support refinement of the conceptual site model and plume characterization requested by EPA.

Groundwater plume delineation may also be performed using conventional spatial interpolation methods, such as kriging, applied to analytical results from a single groundwater monitoring event (Figure 6). While such methods are useful for visualizing groundwater conditions during a specific

[3] Jones, W.R., Rock, L., Wesch, A., Marzusch, E., and Low, M. (2022). “Groundwater Spatiotemporal Data Analysis Tool: Case Studies, New Features and Future Developments.” *Groundwater Monitoring & Remediation*, 42(3), 14-22.

monitoring period, the resulting plume geometry reflects conditions at a single point in time and may be influenced by short-term variability in groundwater elevations, concentration distributions, monitoring density, and analytical variability. Alternatively, plume maps generated using the maximum concentration observed during multiple monitoring events may represent a conservative depiction of groundwater impacts; however, such evaluations may combine concentrations that were not observed simultaneously and, therefore, may not represent plume geometry during any individual monitoring period.

In contrast, GWSDAT evaluates groundwater concentrations as a function of both spatial location and time through a spatiotemporal modeling framework. The resulting concentration surfaces incorporate the full groundwater monitoring dataset and provide a representation of long-term groundwater conditions rather than conditions associated with a single monitoring event. Consequently, the annual GWSDAT plume interpretations presented in this Addendum are considered more appropriate for characterization of plume evolution, plume behavior, plume area, and dissolved arsenic occurrence within groundwater for purposes of the Nature and Extent evaluation. Conventional contour maps remain useful for evaluating conditions during individual monitoring periods; however, the GWSDAT approach provides a more comprehensive assessment of long-term plume geometry and temporal behavior within the uppermost aquifer[4].

5.2 Arsenic Plume Delineation

The arsenic plume was delineated using a ten-year groundwater monitoring dataset spanning the fourth quarter of 2016 through the third quarter of 2026, including analytical data from the AOR monitoring wells. The interpretation is based on groundwater monitoring results, hydrogeologic interpretations, potentiometric surface evaluations, and GWSDAT-generated concentration surfaces. A plume map was generated in GWSDAT for each annual evaluation period and is presented in Appendix F.

Figure 5 updates and supersedes the arsenic plume depiction in the September 2025 *Nature and Extent Report* by incorporating groundwater monitoring data collected pursuant to the AOR. It represents the current interpretation of arsenic distribution within the uppermost aquifer.

5.2.1 Horizontal Extent

The plume maps indicate that arsenic impacts remain concentrated north and northwest of the Dallman Ash Pond and are primarily associated with groundwater within the basal

[4] Jones, W.R., Spence, M.J., Bowman, A.W., Evers, L., and Molinari, D.A. (2014). "A software tool for the spatiotemporal analysis and reporting of groundwater monitoring data." *Environmental Modelling & Software*, 55, 242-249; Evers, L., Molinari, D.A., Bowman, A.W., Jones, W.R., and Spence, M.J. (2015). "Efficient and automatic methods for flexible regression on spatiotemporal data, with applications to groundwater monitoring." *Environmetrics*, 26, 431-441.

sand/weathered-bedrock aquifer. Elevated arsenic concentrations continue to occur in monitoring wells immediately downgradient of the Dallman Ash Pond, including AW1 and RW3, with concentrations generally decreasing away from the source area. Additional AOR monitoring locations provide improved control on the plume margins and greater confidence in the interpreted plume geometry.

The additional monitoring data refine plume boundaries and reduce uncertainty regarding the horizontal extent of arsenic impacts. The dataset does not indicate previously unrecognized, widespread arsenic impacts beyond the areas identified through previous assessments. The overall plume footprint displays temporal variability but remains generally consistent with the nature and extent described in the September 2025 *Nature and Extent Report*. Arsenic concentrations used to delineate the plume are summarized in Table 2. The highest concentrations continue to occur in RW3, AW1, AP8, P07D, and AW6, while many plume-margin and boundary wells remain below the groundwater protection standard. This distribution supports the interpretation of a localized plume centered within historically impacted portions of the basal sand/weathered-bedrock aquifer. The additional monitoring data also improve understanding of plume geometry relative to the shallow sand unit and former creek alignment and provide greater confidence in the interpreted lateral extent of groundwater impacts.

5.2.2 Vertical Extent

Groundwater impacts continue to be primarily associated with the basal sand/weathered bedrock interval, which represents the uppermost aquifer beneath the Site. Monitoring data collected from both historical and newly installed wells indicate that arsenic concentrations exceeding the groundwater protection standard are largely confined to this hydrostratigraphic interval. Vertical hydrostratigraphic relationships are illustrated on the geologic cross-sections in Appendix D and the conceptual site model in Figure 3.

The additional investigation supports recognition of the shallow sand unit as a potential groundwater migration pathway where saturated and hydraulically connected conditions exist. However, the available monitoring data do not indicate that the shallow sand unit represents the dominant hydrostratigraphic interval controlling the currently defined arsenic plume. The principal groundwater impacts remain associated with the basal sand/weathered bedrock aquifer. The occurrence of arsenic impacts within this interval is consistent with the hydraulic communication discussed in Section 3.3 and supports the interpretation that groundwater impacts associated with the CCR units are expressed primarily within the basal sand/weathered-bedrock aquifer.

5.2.3 Downgradient Extent

The additional monitoring locations installed under the AOR improve delineation of the downgradient extent of arsenic impacts and reduce uncertainty in areas where monitoring coverage was previously limited. Groundwater flow interpretations continue to indicate movement

toward Sugar Creek and other local convergence areas, consistent with previous potentiometric surface evaluations. Groundwater flow directions are depicted on Figure 4.

Concentrations observed in the newly installed wells generally support the existing interpretation of plume migration. While individual monitoring locations provide additional spatial resolution and improve delineation of downgradient plume boundaries, the dataset does not indicate substantial expansion of arsenic impacts beyond areas previously identified through routine groundwater monitoring and assessment activities. The additional monitoring locations installed pursuant to the AOR provide improved delineation of downgradient plume boundaries and reduce uncertainty regarding the lateral extent of arsenic migration between previously existing monitoring locations.

5.2.4 Areas of Uncertainty

As with most groundwater investigations, uncertainty remains near the outer limits of the interpreted plume where groundwater monitoring locations are more widely spaced. Additional uncertainty is associated with localized hydrogeologic variability, particularly near the former creek alignment and discontinuous shallow sand deposits identified during the AOR investigation. Interpretation of groundwater movement in the former creek corridor remains dependent upon correlation of heterogeneous alluvial and fill materials together with associated groundwater-bearing intervals, resulting in some uncertainty regarding the extent and continuity of hydraulic connectivity within this area. Similarly, the discontinuous nature of the shallow sand unit results in uncertainty regarding its relative contribution to groundwater migration at specific locations. These features may influence groundwater movement at a local scale and contribute to variability in concentration distributions. Potential migration pathways associated with the shallow sand unit and former creek alignment have been incorporated into the conceptual site model shown on Figure 3 and will continue to be evaluated as additional groundwater monitoring data become available. Although uncertainty remains regarding the relative significance of these features to plume development, incorporation of the AOR data has improved understanding of their potential role in groundwater migration and contaminant transport.

Although these uncertainties affect interpretation of localized groundwater flow paths, they do not materially alter the overall understanding of arsenic occurrence within the uppermost aquifer. The expanded monitoring network substantially improves confidence in plume delineation compared to previous evaluations.

The AOR investigation improves delineation of plume boundaries, reduces uncertainty regarding plume geometry, and provides additional information regarding groundwater migration pathways and hydraulic communication between CCR source areas and the uppermost aquifer. Incorporation of the additional monitoring locations into the GWSDAT evaluation resulted in refinement of plume contours, plume metrics, and the conceptual site model used to characterize groundwater impacts. The evaluation confirms that arsenic impacts remain primarily associated

with groundwater within the basal sand/weathered-bedrock aquifer and that the overall plume configuration displays some temporal variability generally consistent with interpretations presented in the September 2025 *Nature and Extent Report*. Refinements resulting from the AOR investigation improve confidence in characterization of the nature and extent of the arsenic release and address EPA comments regarding plume delineation, migration pathways, and hydraulic communication.

6. REVISED ARSENIC RELEASE CHARACTERIZATION

6.1 Previous Characterization

The September 2025 *Nature and Extent Report* concluded that arsenic impacts associated with the CCR surface impoundments were primarily present within the basal sand/weathered bedrock interval that comprises the uppermost aquifer beneath the Site. Arsenic concentrations exceeding the groundwater protection standard were identified in monitoring wells AW1, RW3, AP7, and AP8, and the nature and extent evaluation was based on groundwater monitoring data available through the fourth quarter of 2024.

The 2025 report interpreted groundwater flow as generally converging toward Sugar Creek and concluded that the arsenic plume was localized and associated with groundwater occurring near the unconsolidated soil/bedrock interface. Delineation of arsenic impacts relied on the existing monitoring network and geologic cross-sections developed from available borings and monitoring wells. The report further concluded that arsenic impacts could be adequately bounded by the existing monitoring network and associated assessment wells.

The hydrogeologic conceptual model presented in the 2025 report emphasized groundwater migration within the basal sand aquifer and did not identify the shallow sand unit or former creek alignment as significant contaminant migration pathways. At that time, available information was considered insufficient to support interpretation of either feature as an important component of the groundwater flow system responsible for arsenic transport.

The 2025 report also concluded that arsenic impacts were primarily associated with groundwater immediately downgradient of the Dallman Ash Pond and that the overall nature and extent of the release had been adequately characterized for purposes of the nature and extent determination.

The September 2025 characterization was developed prior to completion of the AOR investigation and, therefore, did not benefit from the additional hydrogeologic, groundwater quality, and groundwater elevation information subsequently obtained from the expanded monitoring network.

The September 2025 *Nature and Extent Report* also included estimates of dissolved arsenic occurrence based on analytical results collected from porewater monitoring locations installed

within the Dallman Ash Pond and Lakeside Ash Pond CCR units. Dissolved arsenic mass was estimated using measured porewater concentrations together with estimated porewater volumes for the CCR impoundments. The evaluation estimated approximately 43.2 kilograms of dissolved arsenic within Dallman Ash Pond porewater and approximately 20.1 kilograms of dissolved arsenic within Lakeside Ash Pond porewater, for a combined estimated dissolved arsenic mass of approximately 63.3 kilograms within CCR porewater.

These estimates were developed to characterize dissolved arsenic occurrence within the CCR impoundments themselves and were not intended to represent dissolved arsenic mass within groundwater. The September 2025 evaluation therefore focused on arsenic present within impoundment porewater, whereas the updated evaluation presented in this Addendum focuses on dissolved arsenic occurrence within the groundwater plume as delineated using GWSDAT and the expanded groundwater monitoring dataset. Consequently, the mass estimates developed in the September 2025 *Nature and Extent Report* and this Addendum are based on different media, different volumetric assumptions, and different calculation methodologies and are not directly comparable. The September 2025 estimate characterized dissolved arsenic occurrence within CCR impoundment porewater, whereas the present evaluation characterizes dissolved arsenic occurrence within groundwater and, therefore, addresses a different component of the overall arsenic release system.

6.2 Impact of New Information

Additional information obtained through the Agreement to Resolve (AOR) investigation was evaluated to determine whether the new data materially change the characterization of arsenic releases presented in the September 2025 *Nature and Extent Report*. The evaluation included additional borings, monitoring wells, groundwater quality data, groundwater elevation measurements, hydrogeologic interpretations, and GWSDAT plume analyses**.** The AOR investigation refined understanding of groundwater migration pathways, hydraulic communication, and plume geometry while continuing to support the conclusion that arsenic impacts remain primarily associated with groundwater within the basal sand/weathered-bedrock aquifer.

In addition, the AOR investigation provided the information necessary to estimate dissolved arsenic occurrence within the groundwater plume using GWSDAT-derived plume geometry and the expanded groundwater monitoring dataset. This updated evaluation supplements the porewater-based arsenic mass estimates, rather than replacing them, presented in the September 2025 *Nature and Extent Report* by providing a separate estimate of dissolved arsenic occurrence within groundwater.

The evaluation considered how the additional information affects understanding of groundwater migration pathways, hydraulic communication between the CCR units and the uppermost aquifer, plume geometry, and the characterization of arsenic releases.

6.2.1 Shallow Sand Pathway

The additional investigation supports recognition of the shallow sand unit as a potential groundwater migration pathway where saturated conditions and hydraulic continuity exist. Review of boring logs, cross-sections, and hydrostratigraphic mapping indicates that the shallow sand unit is present in localized areas and may provide a mechanism for groundwater movement within portions of the Site.

However, the shallow sand unit remains limited in thickness and lateral extent and does not appear to form a laterally continuous groundwater-bearing unit across the Site. The additional information refines the understanding of groundwater migration pathways and supports incorporation of the shallow sand unit into the conceptual site model as a potential groundwater migration pathway. However, the available monitoring data do not indicate that groundwater movement within the shallow sand unit alone controls the observed arsenic plume.

The AOR investigation and hydrogeologic evaluation support recognition of the shallow sand unit as a potential groundwater migration pathway where saturated and hydraulically connected conditions exist. This revised interpretation addresses the EPA's previous comments regarding the hydraulic significance of the shallow sand unit while recognizing that the unit remains discontinuous and limited in lateral extent across much of the Site.

6.2.2 Former Creek Alignment

The AOR investigation also provided additional information regarding the former creek alignment along the eastern side of the Dallman Ash Pond. Historical borings, recent borings, geologic cross-sections, and hydrostratigraphic mapping collectively indicate that portions of the former creek channel contain soft alluvial and fill materials associated with adjacent groundwater-bearing intervals and saturated sand deposits capable of facilitating groundwater movement.

Review of boring logs P-1D, P-2D, B-4, and B-8U indicates that the clay/fill intervals cited in EPA comments were generally logged as moist or wet rather than saturated. Saturated conditions were more commonly identified in underlying sand units and groundwater-bearing intervals. Consequently, the boring logs do not independently support characterization of the clay/fill materials themselves as uniformly saturated deposits. However, the boring logs do indicate the presence of soft alluvial and fill materials and localized groundwater-bearing zones that may influence groundwater movement along portions of the former creek alignment.

The former creek alignment, together with the shallow sand unit and long-term downward migration through lower-permeability deposits, represents one of several mechanisms that may contribute to migration of arsenic from the CCR source area to the basal sand/weathered bedrock aquifer.

These data support interpretation of portions of the former creek alignment as potential localized preferential groundwater migration pathways that may influence groundwater flow and contaminant transport incorporated into the conceptual site model. However, available information does not indicate that the former creek channel forms a continuous conduit beneath the Site or represents the sole mechanism by which arsenic has migrated from the CCR source area to the uppermost aquifer. Rather, the former creek alignment is interpreted as one of several hydrogeologic features that may influence local groundwater movement and contaminant transport.

6.2.3 Additional Monitoring Wells

The installation of monitoring wells AW4, AW5, AW6, and AP17 improved groundwater monitoring coverage in areas where additional data were previously needed. Analytical results from these wells provide improved spatial definition of arsenic concentrations and increase confidence in interpretation of plume boundaries.

The new monitoring results generally confirm the previously interpreted distribution of arsenic impacts while improving delineation of plume boundaries, reducing uncertainty regarding plume geometry, and providing additional information relevant to groundwater migration pathways and hydraulic communication. While the new wells provide important information regarding plume geometry and local groundwater conditions, they do not identify a previously unrecognized plume segment or indicate substantial expansion of the arsenic plume beyond areas already identified in the September 2025 *Nature and Extent Report*. Analytical results from the AOR monitoring wells are summarized in Table 2 and were incorporated into the plume delineation, hydrogeologic interpretation, and arsenic release calculations presented in this Addendum.

6.2.4 Plume Delineation

Incorporation of the AOR monitoring data into the GWSDAT evaluation resulted in refinement of plume contours and associated plume metrics. The analysis improves delineation of the horizontal extent of impacts and provides greater confidence in estimates of plume area, average concentration, and dissolved arsenic mass. The evolution of the plume geometry is illustrated on the GWSDAT figures in Appendix F.

The plume interpretation confirms that arsenic impacts remain concentrated within the basal sand/weathered bedrock aquifer and remain generally consistent with the plume configuration previously identified. The revised plume maps reflect improved delineation resulting from

additional monitoring data and provide a more robust characterization of plume geometry and groundwater impacts. The additional monitoring data improve confidence in plume geometry, reduce uncertainty regarding plume margins, and provides additional resolution of groundwater conditions between previously existing monitoring locations.

Collectively, the new information supports refinement of the hydrogeologic conceptual model by recognizing the shallow sand unit and portions of the former creek alignment as potential groundwater migration pathways and hydrogeologic features that may contribute to migration of arsenic from the CCR source areas to the uppermost aquifer. However, the additional investigation does not fundamentally alter the interpretation that arsenic impacts are primarily associated with groundwater within the basal sand/weathered-bedrock aquifer, nor do they substantially change the overall nature and extent of the arsenic release.

The additional investigation refines understanding of groundwater migration pathways, improves delineation of arsenic impacts, and enhance characterization of hydraulic communication between the CCR source areas and the uppermost aquifer. The updated conceptual site model recognizes that arsenic migration to the basal sand/weathered-bedrock aquifer likely reflects a combination of long-term downward migration through lower-permeability deposits under sustained hydraulic gradients and potential localized migration through hydrogeologic features such as the shallow sand unit and portions of the former creek alignment where favorable hydraulic conditions exist.

The AOR investigation also provided sufficient groundwater monitoring data to characterize the occurrence of dissolved arsenic within the groundwater plume using GWSDAT. Whereas the September 2025 *Nature and Extent Report* estimated the occurrence of dissolved arsenic within CCR impoundment porewater, the updated evaluation estimates the occurrence of dissolved arsenic within groundwater. These calculations address different portions of the overall arsenic release system and, therefore, provide complementary, rather than directly comparable, estimates of dissolved arsenic occurrence.

While the additional investigation substantially improves understanding of groundwater migration pathways, plume geometry, and dissolved arsenic occurrence within groundwater, arsenic impacts remain primarily associated with the basal sand/weathered-bedrock aquifer and the overall nature and extent of the arsenic release remain generally consistent with the interpretation presented in the September 2025 *Nature and Extent Report*.

7. ARSENIC RELEASE CALCULATIONS

7.1 Methodology

The September 2025 *Nature and Extent Report* estimated arsenic release quantities using groundwater monitoring data available at that time and the interpreted extent of groundwater impacts within the uppermost aquifer. Since completion of that evaluation, additional monitoring locations have been installed pursuant to the AOR, providing improved spatial coverage and better definition of plume geometry.

Groundwater arsenic concentrations were evaluated using the GWSDAT, an open-source decision-support tool developed for analysis and visualization of groundwater monitoring data. GWSDAT applies a spatiotemporal statistical model that evaluates groundwater concentration data as a function of both location (X-Y coordinates) and time, allowing concentration trends and plume geometry to be interpreted simultaneously rather than through independent spatial or temporal analyses (Jones, W.R., et al., 2014; Evers, L, et al., 2015). GWSDAT utilizes non-parametric smoothing and spatiotemporal regression techniques to generate continuous groundwater concentration surfaces from discrete monitoring well data.

For this evaluation, total arsenic concentration data collected between the fourth quarter of 2016 and the third quarter of 2026 were imported together with monitoring well coordinates and groundwater elevation information. The dataset included both historical monitoring locations and monitoring wells installed pursuant to the AOR (AW-4, AW-5, AW-6, and AP-17). GWSDAT used the monitoring data to fit a spatiotemporal concentration surface representing arsenic occurrence within the uppermost aquifer for each evaluation period.

Although the spatiotemporal model was fit using quarterly data, plume characterization was performed using annual aggregation of the modeled concentration surfaces to provide a stable representation of long-term groundwater conditions and incorporate the complete AOR monitoring dataset.

The resulting concentration surfaces were used to generate yearly plume maps by interpolating arsenic concentrations between monitoring wells while accounting for temporal trends in the groundwater dataset. Plume boundaries were defined using an arsenic threshold concentration of 23.9 micrograms per liter (µg/L), corresponding to the arsenic groundwater protection standard (GWPS). Areas where the interpolated concentration surface exceeded the selected threshold were delineated as the arsenic plume. GWSDAT then calculated plume metrics including plume area, average plume concentration, and normalized dissolved plume mass. Annual periods that did not produce a closed plume geometry were evaluated qualitatively through review of the modeled concentration surfaces but were not used for quantitative plume-area or plume-mass calculations.

GWSDAT plume statistics were calculated using an effective porosity of 43 percent. The selected porosity value is based on published saturation water-content data for sandy materials reported by Sharp-Hansen et al.[5], which indicate a representative range of approximately 37 to 49 percent. The mean value of 43 percent was adopted as representative of the basal sand/weathered-bedrock aquifer for purposes of plume metric evaluation and dissolved arsenic mass estimation.

To estimate total dissolved arsenic mass within groundwater, the normalized GWSDAT plume mass was multiplied by a representative saturated thickness for the basal sand/weathered-bedrock aquifer. Based on hydrogeologic information presented in the September 2025 *Flow Path Report* and subsequent AOR investigation, a representative saturated thickness of approximately 12 feet was selected for mass estimation. This thickness is considered representative of the arsenic-bearing portion of the uppermost aquifer and provides a reasonable basis for order-of-magnitude estimation of dissolved arsenic mass.

The evaluation is intended to refine previous estimates using the expanded monitoring dataset and the revised conceptual understanding developed through the AOR investigation. The calculations reflect improved characterization of plume geometry, groundwater migration pathways, and concentration distributions resulting from incorporation of additional monitoring data rather than a fundamental change in the overall interpretation of groundwater impacts. Supporting GWSDAT output files are provided in Appendix F.

7.1.1 GWSDAT Model Assumptions

The GWSDAT evaluation is based on several assumptions regarding data treatment, statistical modeling, and plume characterization. These assumptions were selected to provide a consistent and reproducible framework for evaluating arsenic occurrence within the uppermost aquifer.

Key assumptions incorporated into the GWSDAT evaluation include:

- Groundwater concentration data are representative of groundwater quality conditions at the corresponding monitoring well locations and sampling dates.
- Arsenic concentrations can be reasonably represented using a spatiotemporal smoothing model that evaluates concentration as a function of both location and time.
- The groundwater monitoring network provides sufficient spatial and temporal coverage to characterize plume geometry and concentration distributions within the uppermost aquifer.

[5] Sharp-Hansen, S., Travers, C., Hummel, P., and Allison, T. (1990). *A Subtitle D Landfill Application Manual for the Multimedia Exposure Assessment Model (MULTIMED)*. U.S. EPA Environmental Research Laboratory, Athens, Georgia. EPA Contract No. 68-03-3513.

- Quarterly monitoring data provide an appropriate basis for fitting the spatiotemporal model, while annual aggregation of the modeled concentration surfaces provides a representative characterization of long-term plume behavior.
- Non-detect analytical results were assigned a value equal to one-half of the laboratory reporting limit prior to model fitting.
- Groundwater elevations were aggregated using the median groundwater elevation value for each evaluation period.
- A penalized spline (PSpline) smoothing model using eight spline segments and higher-resolution model output settings was used to generate concentration surfaces.
- The arsenic groundwater protection standard (23.9 µg/L) was used as the plume delineation threshold concentration.
- Plume metrics were calculated only for annual periods in which the selected threshold concentration produced a statistically valid closed plume geometry.
- An effective porosity of 43 percent was assumed for the basal sand/weathered-bedrock aquifer.
- A representative saturated thickness of 12 feet was assumed for calculation of estimated dissolved arsenic mass from the normalized plume mass reported by GWSDAT.

These assumptions are consistent with the objectives of the Nature and Extent evaluation and provide a transparent basis for interpretation of plume geometry, plume area, average plume concentration, and estimated dissolved arsenic mass.

7.2 Results

The GWSDAT evaluation generated quantitative plume metrics for arsenic using historical groundwater monitoring data together with results from the newly installed monitoring wells. The plume statistics provide a consistent quantitative basis for evaluating changes in plume geometry, plume extent, and dissolved arsenic mass through time. GWSDAT-derived plume metrics are shown on the figures in Appendix F.

The GWSDAT plume statistics are based on a groundwater monitoring dataset spanning approximately ten years (Fourth Quarter 2016 through Third Quarter 2026) and, therefore, represent a robust characterization of arsenic occurrence within the uppermost aquifer. The resulting plume geometry and dissolved mass estimates are considered representative of long-term groundwater conditions rather than short-term fluctuations associated with individual monitoring events.

Arsenic plume metrics include:

- Estimated plume area above the 23.9 µg/L arsenic groundwater protection standard (GWPS);
- Average arsenic concentration within the delineated plume; and
- Estimated dissolved arsenic mass within the plume.

Annual GWSDAT plume maps were generated for ten consecutive annual monitoring periods spanning the fourth quarter of 2016 through the third quarter of 2026 using an arsenic threshold concentration equal to the groundwater protection standard (23.9 µg/L). Plume statistics could only be calculated for annual periods in which the threshold concentration produced a statistically valid closed plume geometry. During the first four annual periods (2016-2017 through 2019-2020), the 23.9 µg/L contour did not produce a closed plume and plume area and plume mass could not be reliably calculated. Beginning with the 2020-2021 evaluation period, a closed plume geometry was produced and GWSDAT calculated annual plume metrics. The largest annual plume metrics were observed during the 2022-2023 evaluation period, when the normalized dissolved plume mass was approximately 1.07 kg/ft and the plume area was approximately 1.51 million square feet. Thereafter, both plume area and normalized plume mass declined, with the 2025-2026 evaluation period producing a normalized dissolved plume mass of approximately 0.189 kg/ft and a plume area of approximately 496,260 square feet. The decrease in calculated plume area and normalized plume mass during the most recent evaluation periods is consistent with a reduction in the portion of the aquifer exceeding the groundwater protection standard and is consistent with the interpretation that groundwater impacts remain localized within historically affected portions of the basal sand/weathered-bedrock aquifer.

As indicated above, the arsenic plume area for the 2025-2026 evaluation period is approximately 496,260 square feet (11.39 acres) using a threshold concentration of 23.9 µg/L and an effective porosity of 43 percent. GWSDAT calculated a normalized dissolved plume mass of approximately 0.189 kg/ft. Because GWSDAT reports plume mass normalized to saturated aquifer thickness, a representative saturated thickness of 12 feet was applied to estimate total dissolved arsenic mass within groundwater. Application of this representative saturated thickness yields an estimated dissolved arsenic mass of approximately 2.3 kilograms within the delineated plume. This value should be considered an order-of-magnitude estimate because actual saturated thickness varies across the plume area and the normalized plume mass reported by GWSDAT is the direct model output.

These metrics were calculated from a groundwater monitoring dataset spanning approximately ten years (Fourth Quarter 2016 through Third Quarter 2026) and incorporating both historical monitoring locations and wells installed pursuant to the Agreement to Resolve. The resulting plume metrics therefore reflect long-term groundwater conditions and arsenic occurrence within

the uppermost aquifer rather than short-term fluctuations associated with individual monitoring events. The delineated plume remains concentrated within historically impacted portions of the basal sand/weathered-bedrock aquifer and does not indicate substantial expansion beyond previously identified plume boundaries.

The evaluation indicates that the arsenic plume remains relatively localized and that variations in calculated plume metrics generally correspond to differences in plume delineation, monitoring density, interpolation, and incorporation of additional monitoring locations rather than evidence of substantial changes in plume behavior. GWSDAT results provide improved confidence in characterization of plume geometry and dissolved arsenic distribution within the uppermost aquifer. The inclusion of AOR monitoring locations improved resolution of plume margins and reduced uncertainty associated with previous plume boundary interpretations.

Annual GWSDAT plume statistics that could be calculated at the 23.9 µg/L threshold indicate that plume area and normalized plume mass were greatest during the 2020-2023 evaluation period and subsequently decreased through the most recent evaluation period (2025-2026). The decrease in both plume area and normalized plume mass suggests that groundwater exceeding the groundwater protection standard remains concentrated within historically impacted portions of the uppermost aquifer and does not indicate continuing plume expansion.

Detailed GWSDAT output figures and supporting information are included in Appendix F.

7.2.1 Comparison with 2025 Estimates

The September 2025 *Nature and Extent Report* characterized arsenic occurrence using groundwater monitoring data available through the fourth quarter of 2024 together with estimates of dissolved arsenic present within CCR impoundment porewater. Since completion of that evaluation, additional monitoring wells have been installed pursuant to the Agreement to Resolve (AOR), resulting in increased spatial coverage of groundwater conditions and arsenic concentrations surrounding the Dallman Ash Pond and Lakeside Ash Pond.

The GWSDAT evaluation completed for this Addendum incorporated approximately ten years of groundwater monitoring data spanning the period from the fourth quarter of 2016 through the third quarter of 2026. The expanded dataset provides a more robust basis for evaluating arsenic plume geometry, concentration distributions, and dissolved arsenic occurrence within groundwater than was available during preparation of the September 2025 report.

The additional monitoring locations installed under the AOR improved delineation of plume boundaries and reduced uncertainty regarding groundwater conditions in areas previously characterized by limited monitoring data. Incorporation of these locations into the GWSDAT

evaluation refined interpretation of plume geometry and improved understanding of groundwater migration pathways represented in the updated conceptual site model.

It should be noted that the arsenic mass estimates presented in the September 2025 *Nature and Extent Report* and this Addendum are based on different calculation approaches and are, therefore, not directly comparable. The September 2025 *Nature and Extent Report* estimated arsenic mass within CCR impoundment porewater using porewater concentrations and estimated porewater volumes. In contrast, this Addendum estimates arsenic occurrence within the groundwater plume using GWSDAT-derived plume geometry, groundwater concentrations, an assumed effective porosity of 43 percent, and a representative saturated aquifer thickness of 12 feet. Consequently, differences between the reported mass estimates reflect differences in the media evaluated and calculation methodology in addition to incorporation of new groundwater monitoring data. The September 2025 calculations characterized dissolved arsenic occurrence within the CCR units themselves, whereas the present evaluation characterizes dissolved arsenic occurrence within groundwater downgradient of the CCR units.

Annual plume statistics generated by GWSDAT provide additional insight into the temporal behavior of the arsenic plume. Closed plume geometries could not be delineated during the first four annual evaluation periods using the groundwater protection standard threshold concentration of 23.9 µg/L. However, statistically valid closed plume geometries were generated during the 2020-2021, 2021-2022, 2022-2023, 2024-2025, and 2025-2026 evaluation periods. The calculated plume areas ranged from approximately 496,260 square feet to approximately 1.52 million square feet, while normalized dissolved plume mass ranged from approximately 0.189 kg/ft to approximately 1.07 kg/ft. The reduction in both plume area and normalized plume mass observed during the most recent annual evaluation period suggests that arsenic impacts exceeding the groundwater protection standard remain concentrated within historically impacted areas and do not indicate continuing plume expansion.

GWSDAT identified a plume area of approximately 496,260 square feet (11.39 acres) and a normalized dissolved plume mass of approximately 0.189 kg/ft for the 2025-2026 evaluation period. Application of a representative saturated thickness of 12 feet yields an estimated dissolved arsenic mass of approximately 2.3 kilograms within the delineated groundwater plume. The resulting plume metrics indicate that arsenic impacts remain concentrated within historically affected portions of the basal sand/weathered-bedrock aquifer and do not indicate substantial expansion of the plume footprint beyond previously identified areas of impact. The estimated groundwater-plume mass is therefore best interpreted as a refinement of groundwater release characterization rather than evidence of a significant change in plume behavior.

Overall, the updated evaluation supports refinement of arsenic release characterization rather than a fundamental change in understanding of the nature and extent of groundwater impacts. The expanded monitoring network, updated hydrogeologic interpretation, and GWSDAT analyses

provide improved confidence in characterization of plume geometry, groundwater migration pathways, hydraulic communication, and dissolved arsenic occurrence within the uppermost aquifer.

8. CONCLUSIONS

The investigation completed pursuant to the Agreement to Resolve (AOR) has provided additional groundwater monitoring and hydrogeologic information that improves the understanding of groundwater conditions surrounding the Dallman Ash Pond (DAP) and Lakeside Ash Pond (LAP) CCR units. The additional data have been incorporated into the conceptual site model, groundwater flow interpretation, arsenic plume delineation, and arsenic release calculations presented in this Addendum.

The AOR investigation does not fundamentally alter the conclusions regarding the primary occurrence of arsenic within the basal sand/weathered bedrock aquifer presented in the June 2025 *Nature and Extent Report*. Rather, the expanded dataset provides additional spatial control, reduces uncertainty regarding plume configuration and migration pathways, and refines the hydrogeologic conceptual site model presented in the September 2025 *Flow Path Report* and June 2025 *Nature and Extent Report*. The AOR investigation provided additional information regarding the shallow sand unit, former creek alignment, and groundwater conditions in areas where monitoring data were previously limited. Evaluation of these data supports recognition of the shallow sand unit as a potential groundwater migration pathway where saturated and hydraulically connected conditions exist. However, the shallow sand unit remains limited in areal extent and does not form a laterally continuous groundwater-bearing unit beneath or surrounding the CCR units. As a result, any contribution of the shallow sand unit to groundwater migration is interpreted to be localized rather than sitewide. Similarly, portions of the former creek alignment may function as potential localized groundwater flow and preferential migration pathways where permeable alluvial materials remain present. Review of historical and recent boring logs indicates that clay/fill intervals within portions of the former creek corridor were generally logged as moist or wet rather than saturated; however, groundwater-bearing sands and localized hydraulically conductive materials remain present and may contribute to groundwater migration within the corridor.

Groundwater monitoring data continues to demonstrate the presence of arsenic within the basal sand/weathered bedrock aquifer. The occurrence of groundwater impacts within this hydrostratigraphic interval supports the conclusion that hydraulic communication exists between the CCR source areas and the uppermost aquifer. The available data support a conceptual model in which arsenic migration to the basal sand/weathered bedrock aquifer is likely associated with long-term downward migration under sustained hydraulic gradients associated with decades of CCR management activities, potentially enhanced by localized migration through hydrogeologic features such as the shallow sand unit and portions of the former creek alignment where favorable

hydraulic conditions exist. The available information does not identify a single discrete pathway responsible for all observed groundwater impacts.

The installation of monitoring wells AW4, AW5, AW6, and AP17 improved groundwater monitoring coverage and increased confidence in interpretation of groundwater quality conditions surrounding the DAP. These locations provide additional spatial control on arsenic concentrations, improve delineation of plume boundaries, and reduce uncertainty in plume geometry, resulting in a more robust interpretation of groundwater impacts as summarized in Table 2.

GWSDAT analyses and resulting plume metrics (Appendix F), which incorporate both historical groundwater data and AOR monitoring results, provide improved delineation of arsenic plume boundaries and estimates of plume area, average concentration, and dissolved arsenic mass. The revised plume interpretation confirms that arsenic impacts remain primarily associated with groundwater within the basal sand/weathered bedrock aquifer and that overall plume geometry remains generally consistent with historical groundwater monitoring observations, although temporal variability is evident in plume area, concentration distributions, and normalized dissolved plume mass. Incorporation of the AOR monitoring locations improved delineation of plume boundaries, reduced uncertainty regarding plume geometry, and enhanced understanding of groundwater migration pathways represented in the conceptual site model. A closed plume geometry exceeding the GWPS was present during the 2020-2023 and 2024-2026 evaluation periods, but both plume area and normalized plume mass declined substantially between 2022-2023 and 2025-2026. The most recent annual plume area (496,260 ft²) represents approximately one-third of the maximum plume area calculated during the monitoring period, while the normalized plume mass decreased from approximately 1.07 kg/ft to approximately 0.19 kg/ft. These results indicate that arsenic impacts remain localized and do not demonstrate continued expansion of the plume beyond historically impacted portions of the uppermost aquifer. These results support the interpretation that arsenic impacts remain primarily associated with groundwater within the basal sand/weathered-bedrock aquifer and provide an updated quantitative estimate of dissolved arsenic occurrence within the uppermost aquifer. This estimate should be considered an order-of-magnitude approximation because actual saturated thickness varies spatially throughout the plume area and the GWSDAT output is not intended to represent a direct calculation of total dissolved mass. Instead, the estimate provides a reasonable basis for comparing the magnitude of dissolved arsenic present within the uppermost aquifer and addressing EPA's request for arsenic release calculations.

These results support the interpretation that arsenic impacts remain concentrated within historically affected portions of the uppermost aquifer and do not indicate substantial expansion of the plume footprint. Long-term groundwater elevation data indicate that a groundwater flow associated with the FGDS Development Unit 2 area induces localized flow convergence, while Sugar Creek functions as a groundwater discharge feature that exerts hydraulic influence along portions of the northern and western site boundaries. Collectively, these features likely contribute

to the localized nature of the arsenic plume and help explain the persistence of elevated concentrations within historically impacted areas despite the absence of substantial plume expansion.

The additional investigation and analyses refine understanding of groundwater migration pathways, improve characterization of hydraulic communication between the CCR source area and the uppermost aquifer, and enhance delineation of the arsenic plume. However, the new information does not substantially alter the overall interpretation of the nature and extent of arsenic impacts presented in the September 2025 *Nature and Extent Report*. Rather, the evaluation provides improved delineation of groundwater impacts and greater confidence in plume characterization through incorporation of additional monitoring locations and hydrogeologic information.

Finally, revisions to arsenic release calculations presented in this Addendum are primarily attributable to improved plume delineation resulting from the expanded monitoring network and incorporation of groundwater monitoring data collected pursuant to the AOR. The calculations provide a more complete representation of plume geometry and concentration distribution and improve confidence in quantitative characterization of the arsenic release.

Accordingly, the additional investigation completed pursuant to the Agreement to Resolve refines the hydrogeologic conceptual site model, improves delineation of arsenic impacts, and enhances understanding of groundwater migration pathways and hydraulic communication between the CCR source areas and the uppermost aquifer. The conceptual site model recognizes that arsenic migration to the basal sand/weathered-bedrock aquifer likely reflects a combination of long-term downward migration through lower-permeability deposits under sustained hydraulic gradients and potential migration through hydrogeologic features such as the shallow sand unit and portions of the former creek alignment where favorable hydraulic conditions exist. While the results of the AOR investigation substantially improve understanding of groundwater conditions and reduce uncertainty regarding plume geometry and migration pathways, groundwater impacts remain primarily associated with the basal sand/weathered-bedrock aquifer and the overall nature and extent of the arsenic release remain generally consistent with the interpretation presented in the September 2025 *Nature and Extent Report*. The information presented in this addendum represents refinements to existing interpretations and directly addresses EPA comments regarding plume delineation, groundwater migration pathways, hydraulic communication, and characterization of the arsenic release.

TABLES

Table 1: Groundwater Elevation Summary

Table 1. Groundwater Elevation Summary

Well ID	4th Qtr 2025	1st Qtr 2026	May-26	2nd Qtr 2026	3rd Qtr 2026
AP1	523.48	524.32	525.28	531.13	524.78
AP10	529.77	530.11	532.62	535.36	533.37
AP11	522.52	522.68	524.37	NM	523.08
AP12	522.46	532.57	524.29	NM	523.16
AP13	521.96	522.23	524.93	NM	524.65
AP14	534.87	536.11	536.22	NM	537.4
AP15D	535.229	535.579	536.639	NM	536.659
AP16	527.695	526.855	531.735	NM	532.185
AP17	NI	NI	527.54	528.55	528.04
AP2	526.48	527.17	528.11	531.27	528.41
AP3	525.37	525.27	525.83	529.94	525.64
AP4	542.66	542.66	544.86	545.46	545.49
AP5	563.28	564.68	568.49	569.87	569.94
AP6	525.466	525.506	527.936	529.136	529.55
AP7	523.97	523.75	526.51	NM	527.46
AP8	530.82	531.54	534.12	535.42	531.77
AP9	523.01	523.11	524.94	NM	527.17
AW1	535.16	536.51	538.89	540.81	542.32
AW2	519.73	521.58	523.86	526.41	525.04
AW4	NI	NI	534.32	535.27	530.12
AW5	NI	NI	528.72	529.65	528.35
AW6	NI	NI	524.79	525.92	526.05
D06	542.394	543.184	545.484	NM	539.834
D07	542.838	543.198	545.896	NM	541.368
D08	541.392	543.322	544.462	550.462	549.162
D1 Deep	540.92	541.77	546.07	547.28	547.79
D2 Deep	542.01	542.79	545.96	549.48	549.94
D3 Deep	541.77	542.93	545.02	550.18	548.83
D4	542.8	543	546.13	546.84	546.28
DB04 Deep	541.988	541.658	546.248	546.838	546.288
DB05 Deep	542.25	543.41	546.809	NM	542.59
G110	528.61	529.82	531.57	532.25	533.84
G112	521.9	524.4	525.84	526.64	528.46
G120	531.02	532.14	534.45	535.57	537.72
G121	523.62	523.42	526.2	527.4	526.49
G122	519.47	520.78	523.42	527.22	525.38
G123	519.722	521.542	523.702	526.092	524.982
GP1	522.76	523.17	526.01	NM	526.08
GP3	528.57	528.33	529.57	NM	530.36
GP7	524.08	524.88	527.25	528.47	527.91
L1 Deep	548.34	547.57	549.86	550.88	552.8

Table 1. Groundwater Elevation Summary

Well ID	4th Qtr 2025	1st Qtr 2026	May-26	2nd Qtr 2026	3rd Qtr 2026
L3 Deep	548.5	547.92	549.69	549.98	552.67
L4	554.1	554.69	561.16	560.76	556.36
L5 Deep	547.19	546.99	548.55	548.48	551.13
LB2 Deep	548.799	549.129	550.229	551.349	553.389
P03D	522.693	524.473	526.323	527.673	527.673
P04D	523.79	525.46	527.22	528.41	527.44
P05D	526.07	526.76	530.8	531.11	525.79
P06D	523.67	525.29	523.96	523.96	523.96
P07D North	520.78	522.09	524.08	525.63	525.41
P09D East	522.31	524.38	525.84	526.71	525.81
P103	521.6	523.46	526.49	NM	527.69
P104	519.9	521.36	523.52	527.21	524.57
P106	520.15	520.59	524.25	523.24	523.24
R101	536.97	537.96	538.72	540.38	540.34
R111	524.37	526	527.34	528.17	529.92
RW3	524.94	525.52	528.21	528.91	529.74
T1	520.77	520.9	523.16	NM	522.2
T2	521.59	522.31	524.59	NM	524.93
T4	528.86	528.55	530.85	NM	532.19
T5	526.67	526.15	531.77	NM	532.61
T6	526.34	525.18	527.61	NM	529.61
TW3 West	524.163	523.483	526.403	531.113	526.723

Note:

1. Groundwater elevations are reported in feet above mean sea level (ft MSL).
2. NM = Not Measured.
3. NI = Not Installed.
4. The July 2026 groundwater elevations were used to develop the potentiometric surface map presented as Figure 4.

Table 2: Summary of Arsenic Analysis

Table 2. Summary of Arsenic Analyses (2Q2026 and 3Q2026)

Well ID	4th Qtr 2025	1st Qtr 2026	2nd Qtr 2026	3rd Qtr 2026
AP1	<0.001	<0.001	NR	<0.001
AP2	0.0014	<0.001	NR	0.0012
AP3	0.0135	0.0175	NR	0.0136
AP4	0.0219	0.0026	NR	0.022
AP5	<0.001	<0.001	NR	<0.001
AP6	0.0112	0.0114	NR	0.0104
AP7	0.0182	0.0325	NR	0.0521
AP8	0.0372	0.0394	NR	0.0462
AP9	0.0016	<0.001	NR	<0.001
AP10	<0.001	<0.001	NR	<0.001
AP11	<0.001	<0.001	NR	<0.001
AP12	<0.001	<0.001	NR	<0.001
AP13	0.0018	0.0018	NR	<0.001
AP14	0.0017	0.0029	NR	0.0014
AP17	NI	NI	0.0062	0.0043
AW1	0.13	0.152	0.0357	0.0813
AW2	0.0134	0.0099	0.0144	0.0098
AW4	NI	NI	0.0143	0.0084
AW5	NI	NI	0.0086	0.0096
AW6	NI	NI	0.0301	0.025
G110	0.0046	0.0055	NR	NR
G112	<0.001	0.0014	NR	NR
G120	0.0128	0.0105	0.0169	<0.001
G121	0.0126	0.0075	0.0141	0.0177
G122	0.0016	0.0025	0.0019	0.0031
P07D	NR	0.0294	0.0272	0.0305
R101	<0.001	<0.001	0.0014	0.0018
R111	0.0171	0.0156	NR	NR
RW3	0.108	0.0654	NR	0.119
T1	<0.001	<0.001	NR	<0.001
T2	0.0073	0.0055	NR	0.004
T4	0.003	0.0026	NR	0.0039
T5	0.0022	0.0033	NR	<0.001
T6	0.0145	0.0114	NR	0.0115

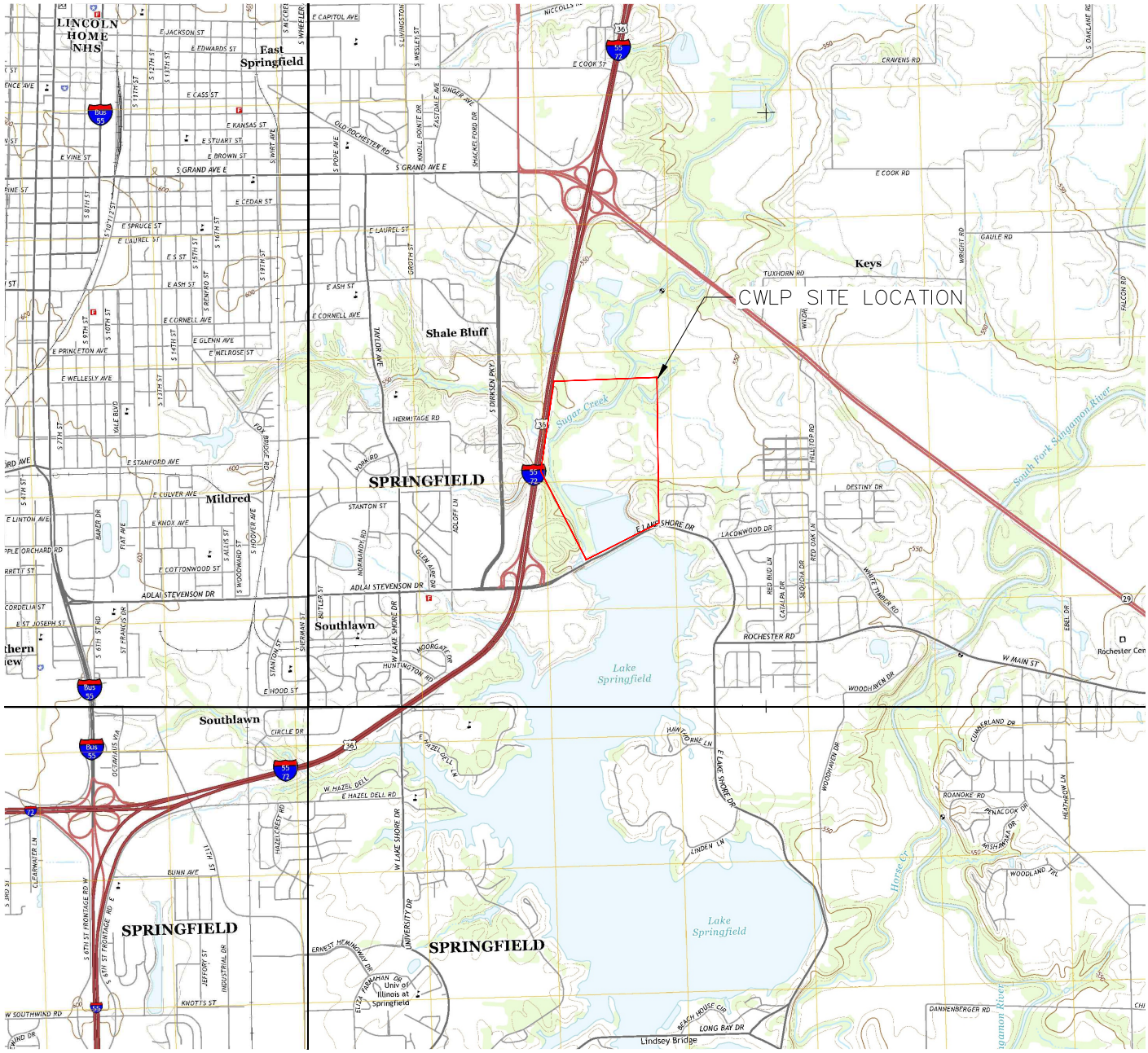
Note:

1. Concentrations are reported in mg/L.
2. NI = Not installed
3. NR = No results

FIGURES

Figure 1: Site Location

J:\S\Springfield CWLP\CWLP Ash Pond\DWG\2026\FSDS Landfill ASD\Site Map.dwg Tab: Layout1



N

0 200 4000 8000

SCALE: IN FEET

NOTE:
BACKGROUND IMAGE COURTESY OF
UNITED STATES GEOLOGICAL SURVEY.

ANDREWS ENGINEERING
a Geo-Logic Company
3300 GINGER CREEK DRIVE
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PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

SITE LOCATION

PLANS PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2026
PROJECT ID: 4926.1207.00
SHEET NUMBER:

FIG. 1

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Figure 2: Site Features and Monitoring Well Network

LEGEND

- 550 — EXISTING GROUND CONTOURS
- TEMPORARY ASSESSMENT WELL/PIEZOMETER
- PIEZOMETER
- CCR SURFACE IMPOUNDMENT WELL
- FGDS LANDFILL WELL
- SURFACE WATER MEASURING LOCATIONS

NOTES

1. FLIGHT DATE: APRIL 2023.
2. TOPOGRAPHIC CONTOUR INTERVAL SHOWN IS 2 FEET.
3. SAMPLING DATE: 7/23/2026.
4. SUGAR CREEK SURFACE WATER ELEVATION IS BASED ON USGS GAGE 05576250 FOR 6/25/2026.
5. DEPICTED BOUNDARIES OF SITE FEATURES ARE APPROXIMATE.

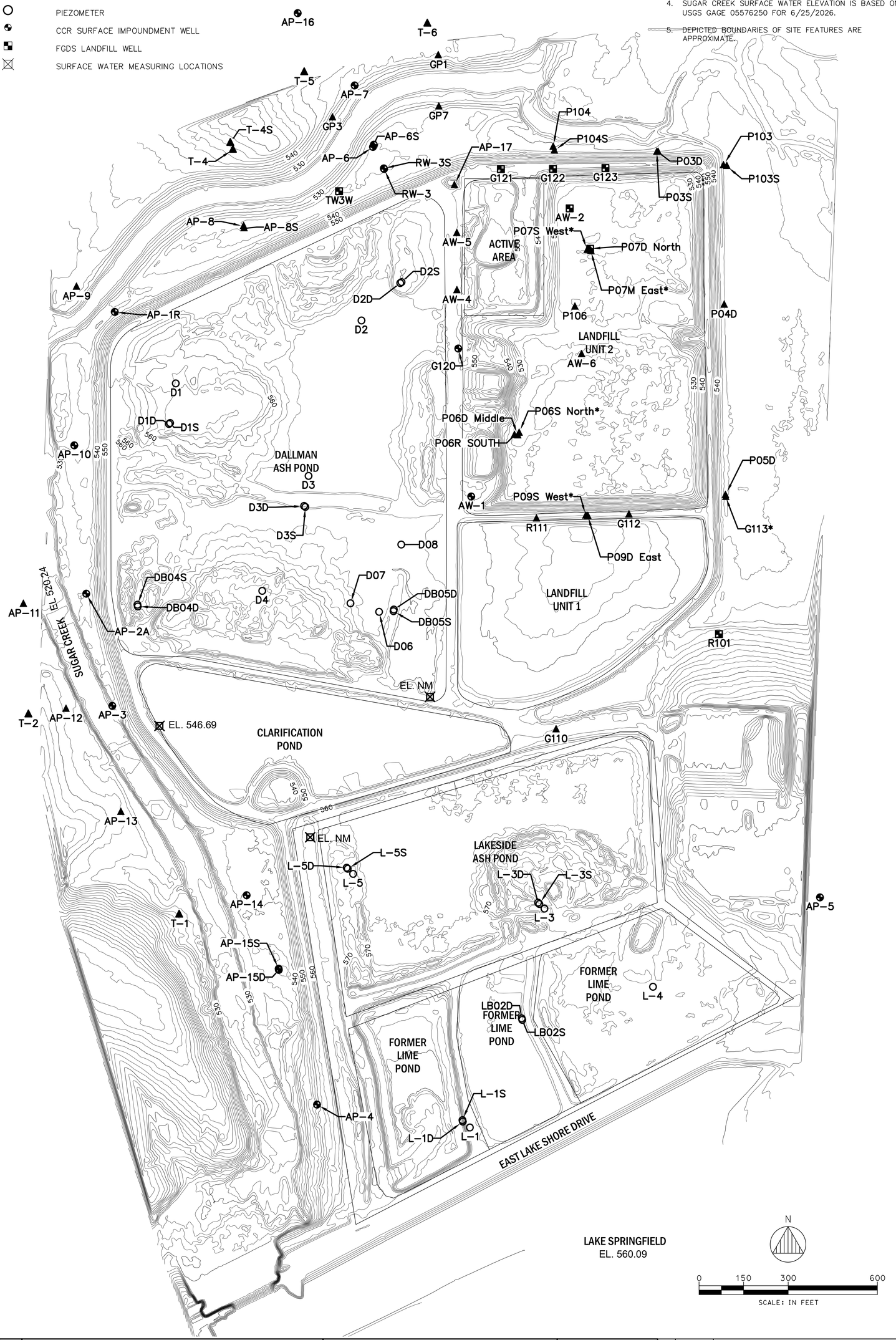


FIG. 2

SITE FEATURES AND MONITORING WELL NETWORK

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2026

PROJECT ID: 4926.1208.00

SHEET NUMBER:

ANDREWS ENGINEERING
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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

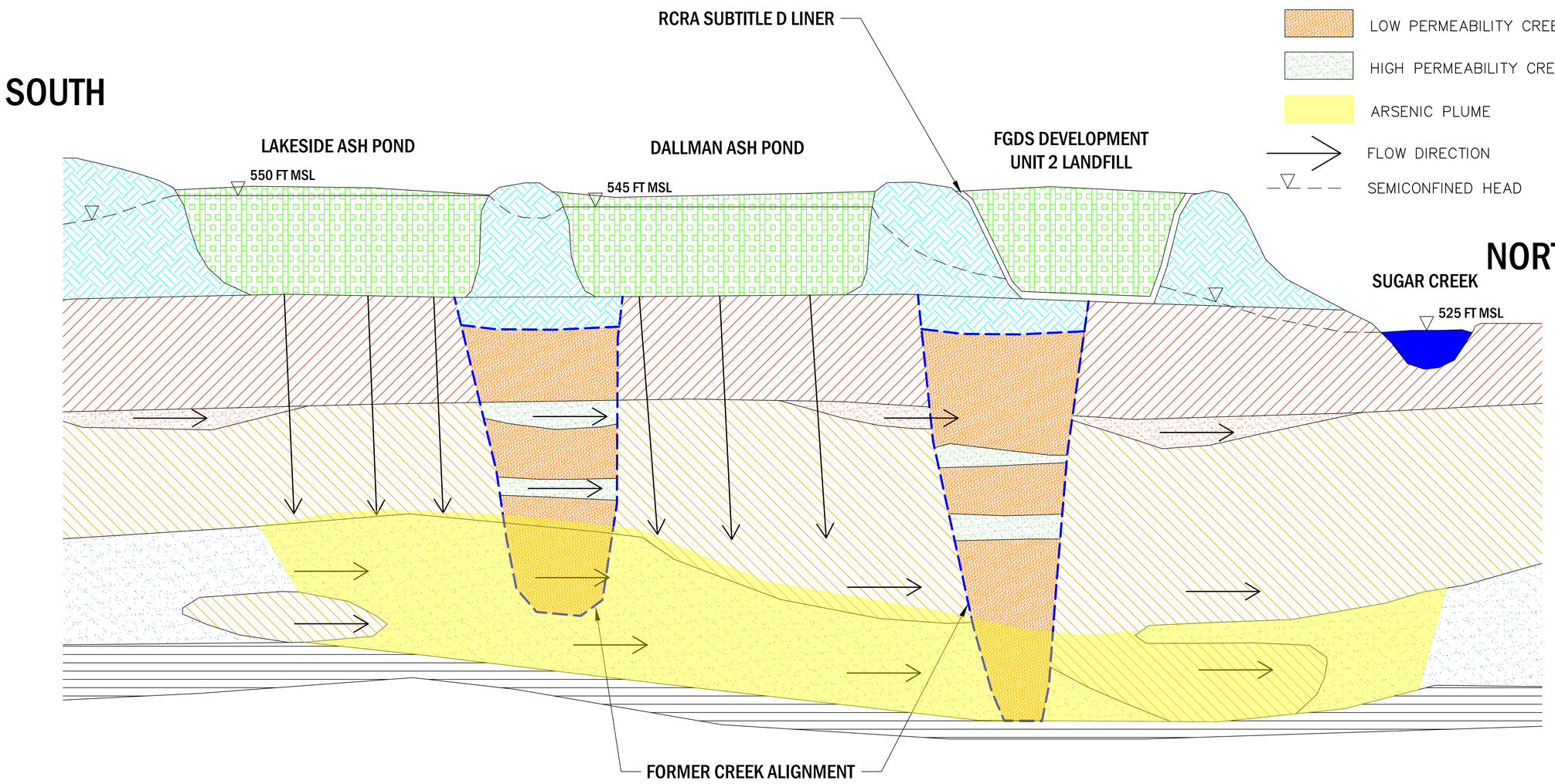
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Figure 3: Conceptual Site Model

Hydrostratigraphic Unit	Thickness Range (ft)	Approximate Average Thickness (ft)
Fill	0-20	8-10
Upper Cohesive Deposit	5-20	10-15
Shallow Sand Unit	0-7	2-4
Lower Cohesive Deposit	0-27	11
Basal Sand	0-18.6	10-12
Weathered Bedrock Interval	0-5	2-3
Shale Bedrock	Not Applicable	Not Applicable

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- CCR
- WEATHERED BEDROCK
- LOW PERMEABILITY CREEK FILL
- HIGH PERMEABILITY CREEK FILL
- ARSENIC PLUME
- FLOW DIRECTION
- SEMICONFINED HEAD



CONCEPTUAL SITE MODEL

NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
a Geo-Logic Company
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

CONCEPTUAL SITE MODEL

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2026

PROJECT ID: 4926.1207.00

SHEET NUMBER:

FIG 3

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Tab: 3 Last Saved: September 22, 2026, by Ben Karpus Plotted: Tuesday, September 22, 2026 9:19:13 AM
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Figure 4: Potentiometric Surface Map, Third Quarter 2026

LEGEND

- 550 — EXISTING GROUND CONTOURS
- —540— GROUNDWATER CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL/PIEZOMETER
- ○ PIEZOMETER
- ◔ CCR SURFACE IMPOUNDMENT WELL
- ▪ FGDS LANDFILL WELL
- ⊠ SURFACE WATER MEASURING LOCATIONS
- NM NOT MEASURED

NOTES

1. FLIGHT DATE: APRIL 2023.
2. POTENTIOMETRIC CONTOUR INTERVAL SHOWN IS 5 FEET.
3. TOPOGRAPHIC CONTOUR INTERVAL SHOWN IS 2 FEET.
4. SAMPLING DATE: 7/23/2026.
5. SUGAR CREEK SURFACE WATER ELEVATION IS BASED ON USGS GAGE 05576250 FOR 6/25/2026.
6. "NM" – NOT MEASURED.
7. DEPICTED BOUNDARIES OF SITE FEATURES ARE APPROXIMATE.
8. (*) – DATA NOT USED TO CREATE CONTOURS.

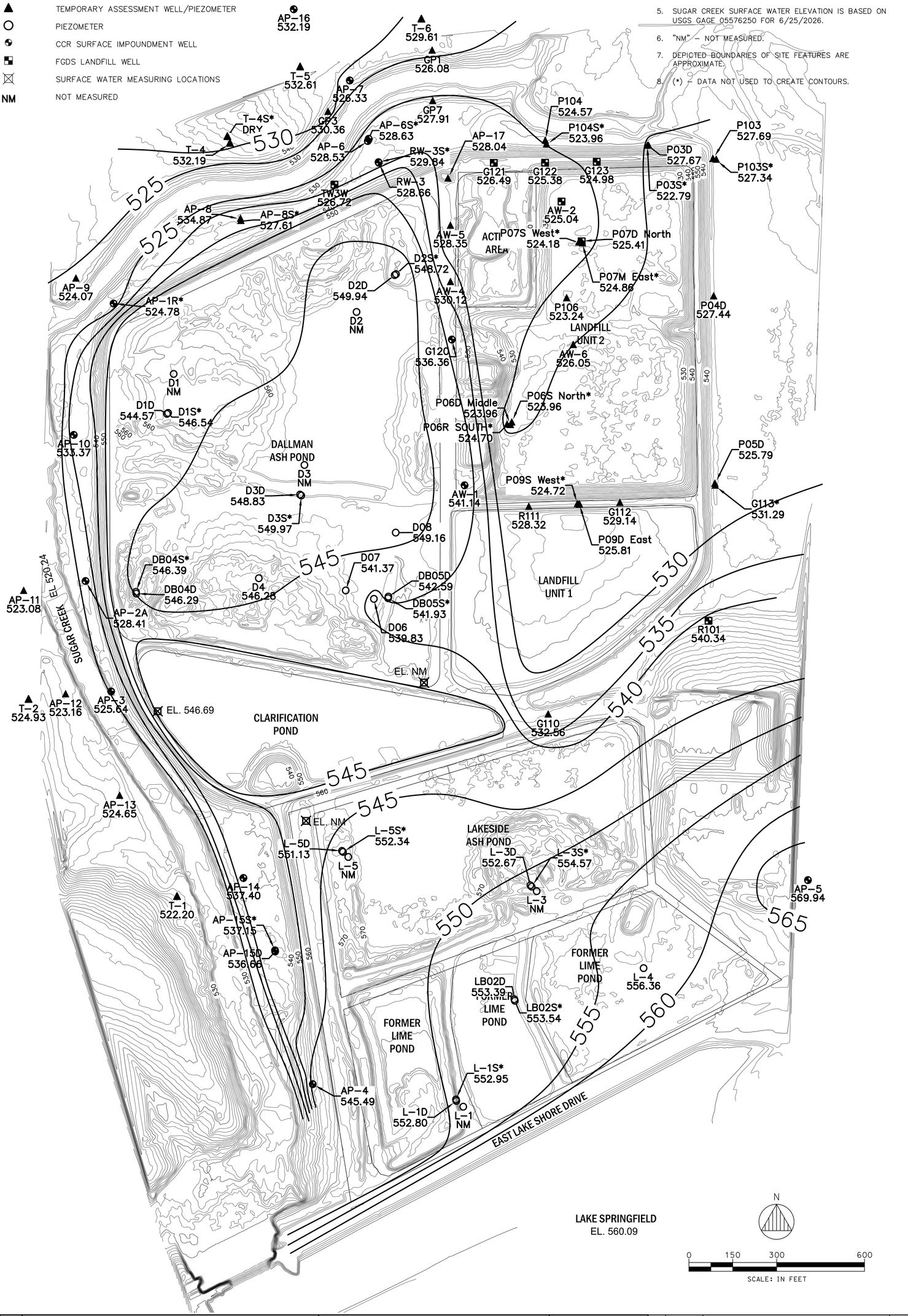


FIG. 4

POTENTIOMETRIC SURFACE MAP
JULY 23, 2026

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2026
PROJECT ID: 4926.1207.00
SHEET NUMBER:

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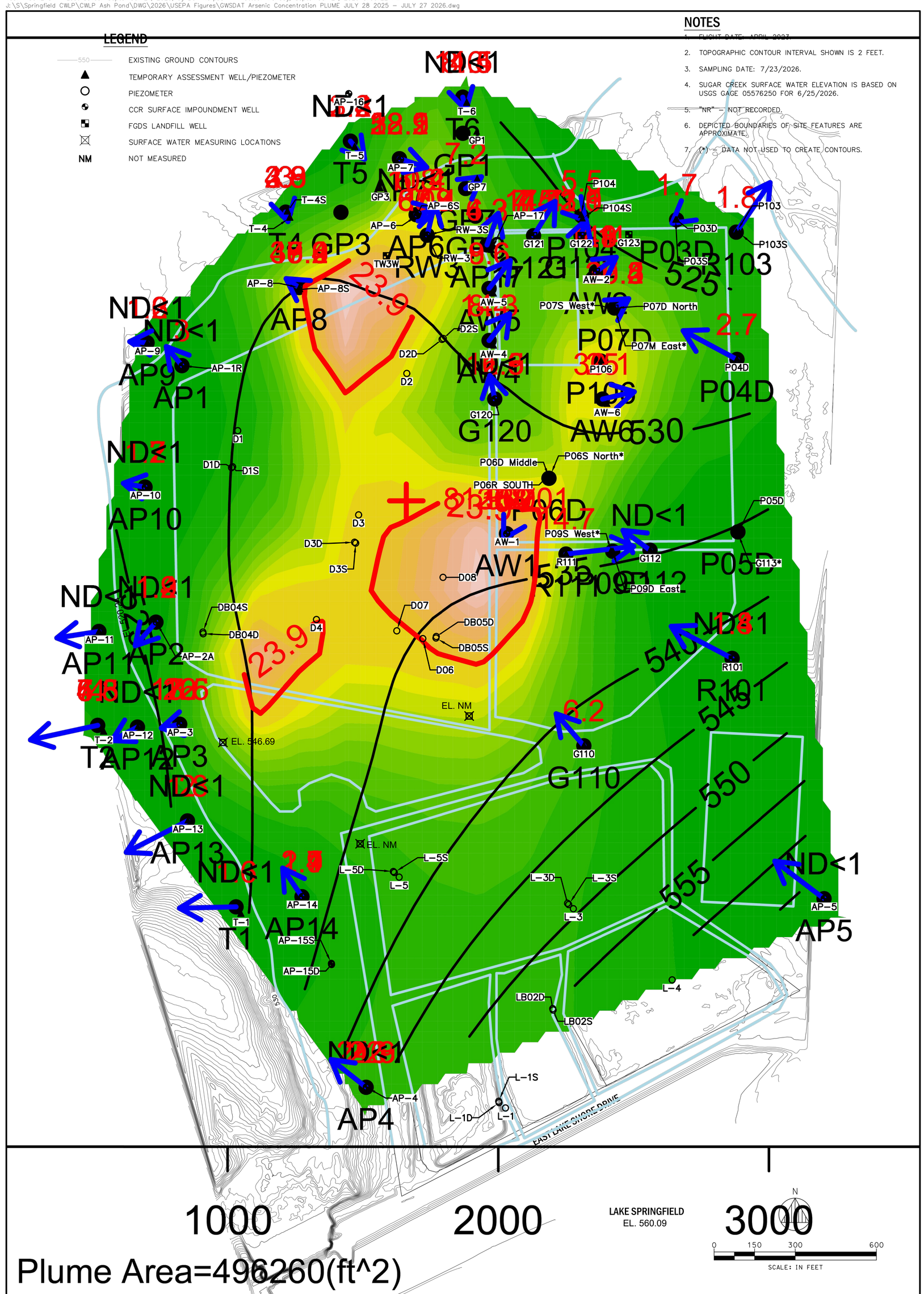
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Figure 5: GWSDAT Arsenic Plume - July 27, 2025 to July 28, 2026

Tab: FIGURE 5 Last Saved: September 21, 2026, by Ben Karpus Plotted: Monday, September 21, 2026 3:00:22 PM
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Plume Area=496260(ft^2)

FIG. 5

GWSDAT ARSENIC PLUME – JULY 28, 2025 THROUGH JULY 27, 2026

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

SHEET NUMBER:

PROJECT ID: 4926.1208.00

DATE: AUGUST 2026

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Figure 6: SURFER Arsenic Plume – July 28, 2026

LEGEND

- 550 — EXISTING GROUND CONTOURS
- ▲ TEMPORARY ASSESSMENT WELL/PIEZOMETER
- ○ PIEZOMETER
- ◔ CCR SURFACE IMPOUNDMENT WELL
- ▪ FGDS LANDFILL WELL
- ⊠ SURFACE WATER MEASURING LOCATIONS
- NM NOT MEASURED

NOTES

1. FLIGHT DATE: APRIL 2023.
2. TOPOGRAPHIC CONTOUR INTERVAL SHOWN IS 2 FEET.
3. SAMPLING DATE: 7/23/2026.
4. SUGAR CREEK SURFACE WATER ELEVATION IS BASED ON USGS GAGE 05576250 FOR 6/25/2026.
5. "NR" – NOT RECORDED.
6. DEPICTED BOUNDARIES OF SITE FEATURES ARE APPROXIMATE.
7. (*) – DATA NOT USED TO CREATE CONTOURS.
8. GROUNDWATER PROTECTION STANDARD (GWPS) FOR TOTAL ARSENIC = 0.0239 mg/L.

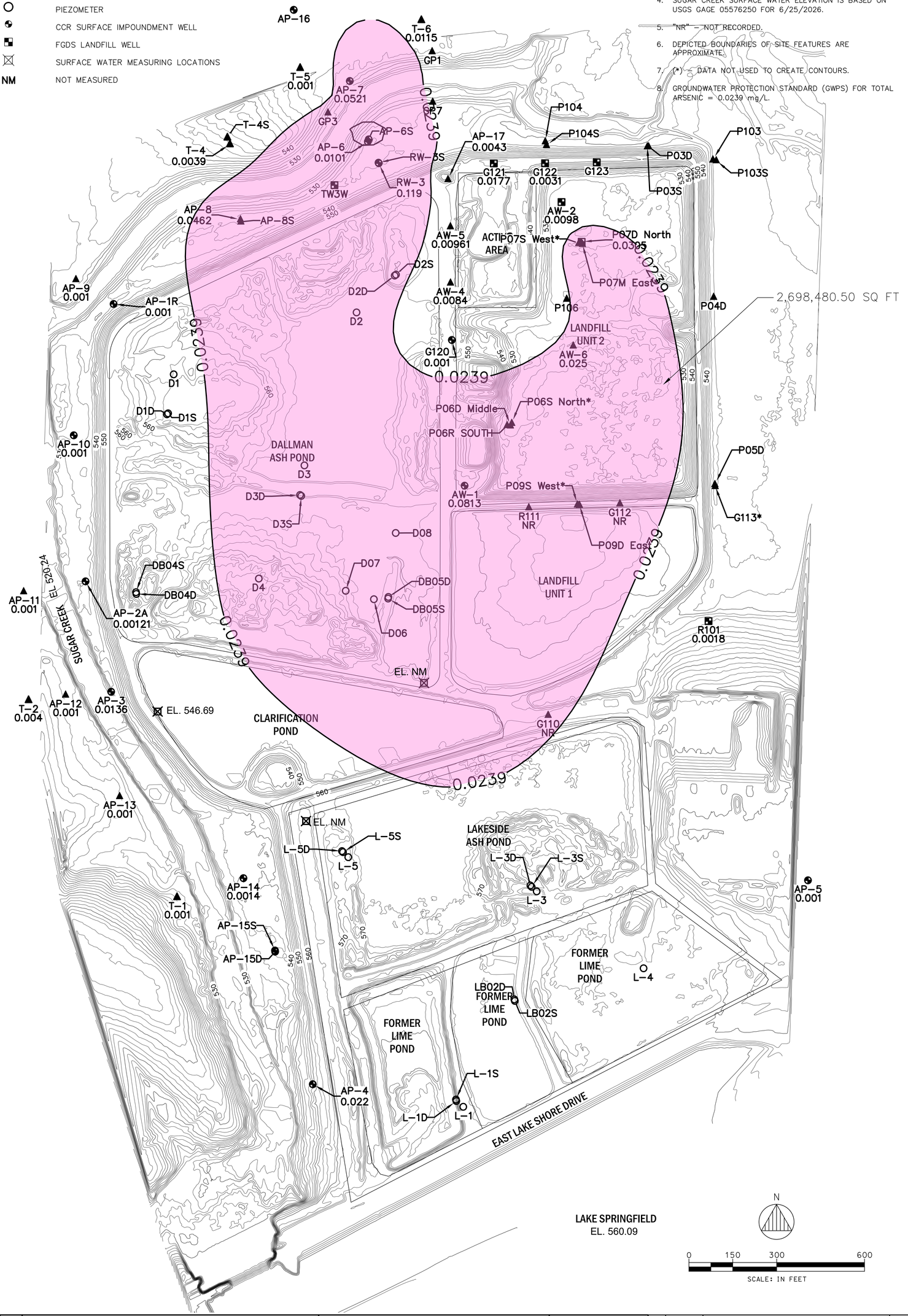


FIG. 6

ARSENIC PLUME – JULY 27, 2026

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

SHEET NUMBER:

PROJECT ID: 4926.1208.00

DATE: AUGUST 2026

ANDREWS ENGINEERING
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SPRINGFIELD, ILLINOIS 62711-7233
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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

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APPENDIX A:
BORING LOGS

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: 201 East Lake Shore Drive
County: Sangamon
Site No.: 1995-243-LFM
AEI No.: 260244

Location:
Coord. System: State Planar
Northing: 1130282.395
Easting: 2456393.82

Weather: 60's, clear, breezy

Boring Information:
Boring No: AW-4
Well No: AW-4
Surf Elev.: 552.894

Depth Information:
Total: 57.5
Auger: 57.0
Core: 0.0

Drilling Contractor:
Contractor Name: Skinner, LTD.
City: Hindsboro, IL
Equipment: 850 CME 4.25" HSA, 5' CB, 2' SS

Personnel:
Geologist: Nathan Beck
Driller: Todd Skinner
Helper(s): C. Buckler, Adam

Dates:
Start: 4/30/2026
Finish: 4/30/2026

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	552.9
0							Asphault	
							Gravel	
	1		0.9				Bluish grey (5/1 5B) silty Clay, moist, with some gravel	550.0
5							Light grey (7/1 10YR) silty Clay, with green (30%) and brown (30%) mottles	
	2		5.0				Dark grey (4/1 10YR) silty Clay, moist	545.0
							Light grey green (7/1 10GY) Silt	
10							Light grey (7/1 10YR) silty Clay	
	3		4.3				Very dark grey (3/1 10YR) silty Clay, with green mottles	540.0
							Light olive (6/3 5Y) silty Clay, with green mottles, moist	
15							Dark grey (4/1 10YR) Silt, moist, with trace clay	
	4		5.0				Olive (4/4 5GY) silty Clay, moist, with light grey mottles	535.0
20							Grey (5/1 10YR) clayey Silt, dry, with organics	

Notes: Augers stopped at 57 feet

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: AW-4 Boring No: AW-4 Well No: AW-4

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		5.0				Olive (4/4 5GY) silty Clay, moist, with organics and black mottles, grades to brown	530.0
25	6		5.0				Yellowish brown (6/4 10YR) silty Clay, soft, wet, with light grey (7/1 10YR) mottles	525.0
30	7		5.0					520.0
35							grades to light grey (7/1 10YR), with brown mottles	
	8		4.6				Grey (6/1 10YR) sandy Clay, moist	515.0
							Brown (4/6 10YR) Sand, with some clay and gravel, moist	
40							Dark grey (4/1 10YR) clayey Silt, firm, dry	

Notes: Augers stopped at 57 feet

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: AW-4 Boring No: AW-4 Well No: AW-4

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	9		4.1				Dark grey (4/1 10YR) silty Clay, moist, with some fine to medium grain sized sand	510.0
45							Dark grey (4/1 10YR) medium grain sized Sand, with few organics	
	10		4.0				Greyish green (5/2 5GY) silty Clay, very moist, soft	505.0
50							grades to sandy Clay, moist	
	11		3.9				Dark grey (4/1 10YR) medium to coarse grain sized Sand, with clay and gravel, wet	500.0
55	12		1.5				Dark grey (4/1 10YR) weathered Shale, dry	
	13		0.5	60\6				
							End of Boring = 57.5 Feet	495.0
60								

Notes: Augers stopped at 57 feet

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: 201 East Lake Shore Drive
County: Sangamon
Site No.: 1995-243-LFM
AEI No.: 260244

Location:
Coord. System: State Planar
Northing: 1130474.33
Easting: 2456386.386

Weather: 60's, clear, breezy

Boring Information:
Boring No: AW-5
Well No: AW-5
Surf Elev.: 552.27

Depth Information:
Total: 60.0
Auger: 60.0
Core: 0.0

Drilling Contractor:
Contractor Name: Skinner, LTD.
City: Hindsboro, IL
Equipment: 850 CME 4.25" HSA, 5' CB, 2' SS

Personnel:
Geologist: Nathan Beck
Driller: Todd Skinner
Helper(s): C. Buckler, Adam

Dates:
Start: 4/28/2026
Finish: 4/29/2026

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	552.3
0							Crushed rock (road)	
	1		0.5				Grey (5/1 10YR) clayey silt, moist, with brown mottles and little sand	550.0
5								
	2		4.5				Olive (4/4 5Y) silty Clay, moist, grey mottles	545.0
							Very dark grey (3/1 10YR) clayey Silt, trace brown mottles	
10								
	3		4.85				Olive brown (4/4 2.5Y) silty Clay, moist, with grey and dark grey mottles	540.0
							Very dark grey (3/1 10YR) clayey Silt, moist, trace green mottles	
15								
	4		4.0				grades to light grey (7/1 10YR) with brown mottles, moist	535.0
							Dark olive (3/4 10Y) silty Clay, moist, dark grey mottles	
20							Dark brownish (4/2 10YR) clayey Silt	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: AW-5 Boring No: AW-5 Well No: AW-5

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Yellowish brown (5/8 10YR) clayey Sand, fine to medium sized grain	
	5		3.4				Black (2/1 10YR) Silt, organics, dry	530.0
							Dark grey (4/1 10YR) silty Clay, grading to olive (4/4 5Y)	
25								
	6		5.0					525.0
							grades to light grey (7/1 10YR), with olive and brown mottles	
30								
	7		5.0					520.0
							Olive grey (5/2 5Y) silty Clay, interbedded with white silt, moist	
35								
	8		4.4				Grey (5/1 10YR) Clay, wet, sticky, plasticy, ductile	515.0
40							Dark brownish grey (4/2 10YR) silty Clay, trace shell fragments, soft	

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: AW-5 Boring No: AW-5 Well No: AW-5

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
								510.0
	9		4.2					
45							Grey (5/1 10YR) silty Clay	
	10		4.8					505.0
							Grey (5/1 10YR) clayey Sand	
50							Grey (5/1 10YR) silty Clay	
	11		2.75					500.0
55							Grey (5/1 10YR) Sand, coarse to medium grain size, with clay, saturated	
	12		3.11					495.0
	13		0.4	60\5			Grey (5/1 10YR) weathered Shale	
60								

Notes:

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: 201 East Lake Shore Drive
County: Sangamon
Site No.: 1995-243-LFM
AEI No.: 260244

Location:
Coord. System: State Planar
Northing: 1130083.277
Easting: 2456818.905

Weather: 60's, clear, breezy

Boring Information:
Boring No: AW-6
Well No: AW-6
Surf Elev.: 524.672

Depth Information:
Total: 31.5
Auger: 31.0
Core: 0.0

Drilling Contractor:
Contractor Name: Skinner, LTD.
City: Hindsboro, IL
Equipment: 850 CME, 4.25" HSA, 5' CB, 2' SS

Personnel:
Geologist: Nathan Beck
Driller: Todd Skinner
Helper(s): C. Buckler, Adam

Dates:
Start: 4/30/2026
Finish: 4/30/2026

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
0							Ground Surface	524.7
	1		4.9				Dark grey (4/1 10YR) silty Clay, with brown mottles, moist, with many organics	
5								520.0
	2		5.0				Black (2/1 10YR) and brown (4/4 7.5YR) Sand, medium to fine grain sized, with clay and trace gravel	
							Very dark grey (3/1 10YR) silty Clay, moist	515.0
10							with light grey (7/1 10YR) silt seams	
	3		5.0				Very dark grey (3/1 10YR) silty Clay, moist	
							Light bluish grey (7/1 10B) silty Clay, wet, ductile	
							Very dark grey (3/1 10YR) clayey Silt, wet	
15							Light bluish grey (7/1 10B) silty Clay, wet	510.0
	4		4.0				with thin sand seams	
20							Light bluish grey (7/1 10B) Clay, wet	505.0

Notes: Augers stopped at 31 feet

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: AW-6 Boring No: AW-6 Well No: AW-6

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		4.5				grades to sandy Clay	
							Light greenish grey (5/1 10Y) sandy Clay, medium sized grains	500.0
25								
	6		3.2				Light greenish grey (5/1 10Y) medium grain sized Sand, with clay, wet	
							Olive grey (5/2 5Y) gravelly coarse to medium grain sized Sand, saturated	
							Grey (5/1 10YR) gravelly Clay, hard, dry, with medium grain sized sand	495.0
30	7		1.2	6 14 46\4			Grey (6/1 10YR) weathered Shale	
							End of Boring = 31.5 Feet	
35								490.0
40								485.0

Notes: Augers stopped at 31 feet

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Site Information:
Name: CWLP
Location: 201 East Lake Shore Drive
County: Sangamon
Site No.: 1995-243-LFM
AEI No.: 260244

Location:
Coord. System: State Planar
Northing: 1130634.534
Easting: 2456370.917

Weather: 60's, clear, breezy

Boring Information:
Boring No: AP17
Well No: AP17
Surf Elev.: 553.31

Depth Information:
Total: 59.0
Auger: 58.0
Core: 0.0

Drilling Contractor:
Contractor Name: Skinner, LTD.
City: Hindsboro, IL
Equipment: 850 CME 4.25" HSA, 5' CB, 2' SS

Personnel:
Geologist: Nathan Beck
Driller: Todd Skinner
Helper(s): C. Buckler, Adam

Dates:
Start: 4/28/2026
Finish: 4/28/2026

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
							Ground Surface	553.3
0							Brown (4/4 7.5YR) clayey Silt, with organics, > 1 inch black ash seam near bottom	
	1		4.0				Brown (5/3 7.5 YR) clayey Silt, organics	
								550.0
							Yellowish brown (6/4 7.5YR) sandy Clay, very moist	
5	2		3.4				Very dark (3/1 10YR) silty Clay, moist, with brown mottles and some organics	
								545.0
							Very dark grey (3/1 10YR), Silt, some clay	
10	3		4.6				grades to clayey Silt, soft, moist	
								540.0
15							Grey (5/1 10YR) Silt, with clay, moist, olive mottles	
	4		3.8				Grey (5/1 10YR) silty Clay, some brown sand and light blueish grey and olive mottles	
								535.0
20								

Notes: Augers stopped at 58 feet

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: AP17 Boring No: AP17 Well No: AP17

- Continuous Barrel (CB) | - Split Spoon (SS) | - Shelby Tube | - Core | - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	5		3.6				Light grey (7/1 10YR) silty Clay, with some brown mottles, some fine sand, moist	
							soft, wet	530.0
25	6		4.0				Pale olive (6/3 5Y) Clay soft, wet	
							grades to light grey (7/1 10YR) with brown mottles	
							Light grey (7/1 10YR) clayey Silt, with brown mottles	
							Light brownish (7/2 10YR) grey silty Clay, moist	525.0
30	7		5.0				grades to light grey with brown mottles	
							Grey (6/1 10YR) silty Clay, moist, with dark brown mottles	520.0
35	8		5.0				Grey (5/1 10YR) Clay, sticky, plasticy, with some brown mottles, soft	515.0
40							Very dark grey (3/1 10YR) clayey Silt, trace grey mottles, very wet, soft	

Notes: Augers stopped at 58 feet

Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711

FIELD BORING LOG

Boring Information: AP17 Boring No: AP17 Well No: AP17

- Continuous Barrel (CB) - Split Spoon (SS) - Shelby Tube - Core - Blind Drill

Depth (ft)	Run No.	Sample Type	Sample Recov.	Blow Count	qu/su (tsf)	Lithology	Description/Comments	Elev. (MSL)
	9		5.0				grades to grey (5/1 10YR)	
							Grey (5/1 10YR) silty Clay, very wet, soft	510.0
45	10		5.0				Grey (6/1 10YR) silty Clay, very soft, saturated, ductile	505.0
50	11		3.6				Dark grey (4/1 10YR) Sand, with clay, trace brown mottles, soft, saturated, medium and fine grained sized	500.0
55	12		3.3					
	13		0.7	17 60\5			Grey (4/1 YR10) weathered Shale	495.0
60							End of Boring = 59 Feet	

Notes: Augers stopped at 58 feet

APPENDIX B:
WELL CONSTRUCTION LOGS

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon County Well #: AW-4

Site Name: FGDS Development Borehole #: AW-4

Coordinates: X 1130282.395 Y 2456393.82 (or) Latitude: 39 ° 46 ' 9 " Longitude: 89 ° 35 ' 53 "

Surveyed by: Andrews Engineering IL Registration #:

Drilling Contractor: Skinner, LTD. Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 850 CME, 4.25 ID HSA w/ 5' CB and 2' SS Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 4/29/2026 Date Well Finished: 4/29/2026 Date Form Completed: 5/6/2026

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Grout

Installation method: Tremie Pipe

Setting time: 24+ Hours

Type of bentonite seal: Bentonite Pellets

Installation method: Free drop

Setting time: 30+ minutes

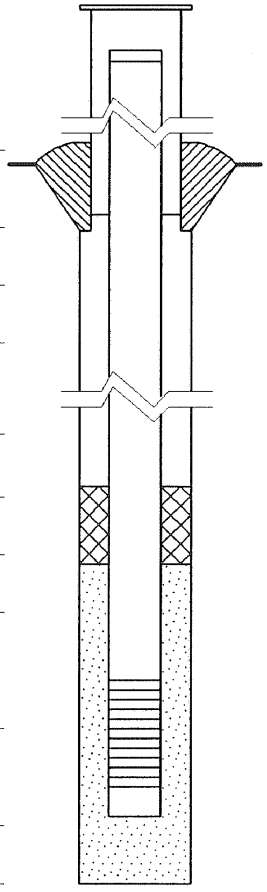
Type of sand pack: Quartz Sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



	ELEVATION (MSL)®	DEPTH (BGS)*	(0.01 ft)
Top of Protective Casing	552.93	-0.04	
Top of Riser Pipe	552.56	0.33	
Ground Surface	552.89	0.00	
Top of Annular Sealant	550.89	2.00	
Static Water Level Measured on (after completion)			
Top of Seal	510.09	42.8	
Top of Sandpack	507.89	45.00	
Top of Screen	506.22	46.67	
Bottom of Screen	496.44	56.45	
Bottom of Well	495.89	57.00	
Bottom of Borehole	495.39	57.0	

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Annodized Alumium
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Prepacked PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	46.34
Bottom of Screen to End Cap (ft)	0.55
Screen Length [1st slot to last slot] (ft)	9.78
Total Length of Casing (ft)	56.67
Screen Slot Size*	0.01 (#10)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon County Well #: AW-5

Site Name: FGDS Development Borehole #: AW-5

Coordinates: X 2456386.386 Y 1130474.33 (or) Latitude: 39 ° 46 ' 11 " Longitude: 89 ° 35 ' 53 "

Surveyed by: Andrews Engineering IL Registration #:

Drilling Contractor: Skinner, LTD. Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 850 CME, 4.25 ID HSA w/ 5' CB and 2' SS Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 4/28/2026 Date Well Finished: 4/29/2026 Date Form Completed: 5/6/2026

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Grout

Installation method: Tremie Pipe

Setting time: 24+ Hours

Type of bentonite seal: Bentonite Pellets

Installation method: Free drop

Setting time: 30+ minutes

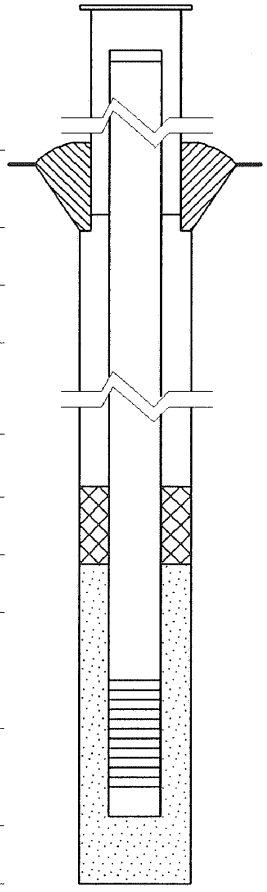
Type of sand pack: Quartz Sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: Quartz Sand (if applicable)

Installation method: Free drop



ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)	
552.17	0.10	Top of Protective Casing
551.83	0.44	Top of Riser Pipe
552.27	0.00	Ground Surface
550.27	2.00	Top of Annular Sealant
		Static Water Level Measured on (after completion)
506.97	45.30	Top of Seal
504.77	47.50	Top of Sandpack
503.07	49.20	Top of Screen
493.37	58.90	Bottom of Screen
492.77	59.50	Bottom of Well
492.27	60	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Annodized Alumium
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Prepacked PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	49.64
Bottom of Screen to End Cap (ft)	0.60
Screen Length (1st slot to last slot) (ft)	9.70
Total Length of Casing (ft)	59.94
Screen Slot Size*	0.01 (#10)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon County Well #: AW-6

Site Name: FGDS Development Borehole #: AW-6

Coordinates: X 2456818.905 Y 1130083.277 (or) Latitude: 39 ° 46 ' 7 " Longitude: 89 ° 35 ' 48 "

Surveyed by: Andrews Engineering IL Registration #:

Drilling Contractor: Skinner, LTD. Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 850 CME, 4.25 ID HSA w/ 5' CB and 2' SS Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 4/28/2026 Date Well Finished: 4/28/2026 Date Form Completed: 5/6/2026

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Grout

Installation method: Tremie Pipe

Setting time: 24+ Hours

Type of bentonite seal: Bentonite Pellets

Installation method: Free drop

Setting time: 30+ minutes

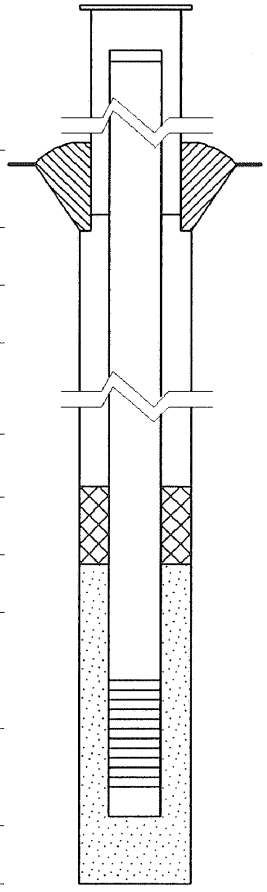
Type of sand pack: Quartz Sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



ELEVATION (MSL)®	DEPTH (BGS)* (0.01 ft)	
527.28	-2.61	Top of Protective Casing
527.11	-2.44	Top of Riser Pipe
524.67	0.00	Ground Surface
522.67	2.00	Top of Annular Sealant
		Static Water Level Measured on (after completion)
502.97	21.70	Top of Seal
500.77	23.90	Top of Sandpack
498.95	25.72	Top of Screen
494.24	30.43	Bottom of Screen
493.67	31.00	Bottom of Well
493.17	31.0	Bottom of Borehole

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Annodized Alumium
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Prepacked PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	28.16
Bottom of Screen to End Cap (ft)	0.57
Screen Length (1st slot to last slot) (ft)	4.71
Total Length of Casing (ft)	33.44
Screen Slot Size*	0.01 (#10)

*Hand-slotted well screens are unacceptable.

Illinois Environmental Protection Agency — Well Completion Report

Site #: 1678250020 County: Sangamon County Well #: AP-17

Site Name: FGDS Development Borehole #: AP-17

Coordinates: X 1130634.534 Y 2456370.917 (or) Latitude: 39 ° 46 ' 12 " Longitude: 89 ° 35 ' 54 "

Surveyed by: Andrews Engineering IL Registration #:

Drilling Contractor: Skinner, LTD. Consulting Firm: Andrews Engineering

Driller: Todd Skinner Geologist: Nathan Beck

Drilling Method: 850 CME, 4.25 ID HSA w/ 5' CB and 2' SS Logged by: Nathan Beck

Drilling Fluids (type): n/a Report Form Completed by: Nathan Beck

Date Well Started: 4/28/2026 Date Well Finished: 4/28/2026 Date Form Completed: 5/6/2026

ANNULAR SPACE DETAILS

Type of surface seal: Concrete

Type of annular sealant: Bentonite Grout

Installation method: Tremie Pipe

Setting time: 24+ Hours

Type of bentonite seal: Bentonite Pellets

Installation method: Free drop

Setting time: 30+ minutes

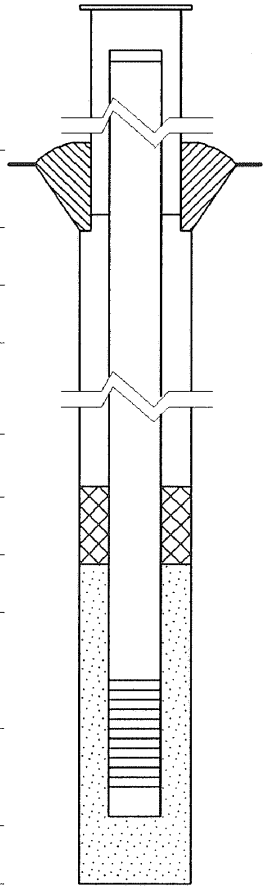
Type of sand pack: Quartz Sand

Grain size: 20/40 (sieve size)

Installation method: Free drop

Type of backfill material: n/a (if applicable)

Installation method: n/a



	ELEVATION (MSL)®	DEPTH (BGS)*	(0.01 ft)
Top of Protective Casing	555.70	-2.39	
Top of Riser Pipe	555.62	-2.31	
Ground Surface	553.31	0.00	
Top of Annular Sealant	551.31	2.00	
Static Water Level Measured on (after completion)			
Top of Seal	509.51	43.80	
Top of Sandpack	507.31	46.00	
Top of Screen	505.57	47.74	
Bottom of Screen	495.87	57.44	
Bottom of Well	495.31	58.00	
Bottom of Borehole	495.31	58.00	

® Referenced to a National Geodetic Vertical Datum
* positive (+) values below GS, negitive (-) values above GS

WELL CONSTRUCTION MATERIALS

Protective Casing	Annodized Alumium
Riser Pipe Above W.T.	PVC
Riser Pipe Below W.T.	PVC
Screen	Prepacked PVC

CASING MEASUREMENTS

Diameter of Borehole (in)	8.25
ID of Riser Pipe (in)	2.00
Protective Casing Length (ft)	5.00
Riser Pipe Length (ft)	50.05
Bottom of Screen to End Cap (ft)	0.56
Screen Length [1st slot to last slot] (ft)	9.70
Total Length of Casing (ft)	60.31
Screen Slot Size*	0.01 (#10)

*Hand-slotted well screens are unacceptable.

APPENDIX C:
GROUNDWATER ANALYTICAL DATA

January 13, 2026

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Kansas	E-10374
Kansas	E-10438
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 25110404

Dear Eric Staley:

TEKLAB, INC received 22 samples on 11/13/2025 4:30:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25110404
Report Date: 13-Jan-26

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	34
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 25110404

Client Project: Ash Pond Monitoring Wells **Report Date:** 13-Jan-26

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26

Qualifiers

# - Unknown hydrocarbon	B - Analyte detected in associated Method Blank
C - RL shown is a Client Requested Quantitation Limit	E - Value above quantitation range
H - Holding times exceeded	I - Associated internal standard was outside method criteria
J - Analyte detected below quantitation limits	M - Manual Integration used to determine area response
ND - Not Detected at the Reporting Limit	R - RPD outside accepted recovery limits
S - Spike Recovery outside recovery limits	T - TIC(Tentatively identified compound)
X - Value exceeds Maximum Contaminant Level	

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25110404
Report Date: 13-Jan-26

Cooler Receipt Temp: 17.5 °C

An employee of Teklab, Inc. collected the sample(s).

A15S and A15D are not required this quarter per Eric Staley. SAH 11/12/25

Radium-226 & -228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville

Address 120 United Drive
Collinsville, IL 62234-7433
Phone (618) 344-1004
Fax
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 120 United Drive
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Client Project: Ash Pond Monitoring Wells

Work Order: 25110404

Report Date: 13-Jan-26

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2027	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2026	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2026	Collinsville
Oklahoma	ODEQ	9978	NELAP	1/31/2026	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2026	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	KWLCP	KY98050		12/31/2026	Collinsville
Kentucky	KWLCP	KY98006		12/31/2026	Collinsville
Kentucky	UST	0073		1/31/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 25110404

Client Project: Ash Pond Monitoring Wells **Report Date:** 13-Jan-26

Lab ID: 25110404-001 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 11/12/2025 13:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	11/12/2025 13:56	R374970
Depth to water	*	-5.00		**10.78**	ft	1	11/12/2025 13:56	R374970
Depth to water from measuring point	*	0		**13.48**	ft	1	11/12/2025 13:56	R374970
Elevation of groundwater surface	*	0		**526.02**	ft	1	11/12/2025 13:56	R374970
Measuring Point Elevation	*	0		**539.50**	ft	1	11/12/2025 13:56	R374970
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	11/12/2025 13:56	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**130**	NTU	1	11/12/2025 13:56	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.8**	°F	1	11/12/2025 13:56	R374970
SW-846 9040B								
pH, Field	*	1.00		**7.09**		1	11/12/2025 13:56	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**780**	µmhos/cm @25C	1	11/12/2025 13:56	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**454**	mg/L	1	11/17/2025 14:23	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2025 16:25	R374691
Chloride	NELAP	5.00		**27.1**	mg/L	10	11/13/2025 16:25	R374691
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/13/2025 16:25	R374691
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**167**	µg/L	1	11/18/2025 10:15	247867
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/18/2025 10:15	247867
Boron	NELAP	20.0		**160**	µg/L	1	11/18/2025 10:15	247867
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/18/2025 10:15	247867
Calcium	NELAP	0.100	B	**71.1**	mg/L	1	11/18/2025 10:15	247867
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/18/2025 10:15	247867
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/18/2025 10:15	247867
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/18/2025 10:15	247867
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/18/2025 10:15	247867
Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**3.9**	µg/L	5	11/14/2025 19:26	247867
Arsenic	NELAP	1.0		**108**	µg/L	5	11/13/2025 20:27	247867
Lithium	*	3.0		**5.7**	µg/L	5	11/14/2025 19:26	247867
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/13/2025 20:27	247867
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/14/2025 19:26	247867
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/14/2025 19:04	247892
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Combined 226/228 Uncertainty	*	0		**0.38**	+/-	1	12/19/2025 11:15	R377436
Radium-226	*	1.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	12/19/2025 11:15	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 11/12/2025 13:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.30**	+/-	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-002
Client Sample ID: AP-1
Matrix: GROUNDWATER
Collection Date: 11/13/2025 14:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**504.29**	ft	1	11/13/2025 14:25	R374970
Depth to water	*	-5.00		**9.62**	ft	1	11/13/2025 14:25	R374970
Depth to water from measuring point	*	0		**11.89**	ft	1	11/13/2025 14:25	R374970
Elevation of groundwater surface	*	0		**523.48**	ft	1	11/13/2025 14:25	R374970
Measuring Point Elevation	*	0		**535.37**	ft	1	11/13/2025 14:25	R374970
Measuring Point Height Above Land Surface	*	0		**2.27**	ft	1	11/13/2025 14:25	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**15**	NTU	1	11/13/2025 14:25	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.6**	°F	1	11/13/2025 14:25	R374970
SW-846 9040B								
pH, Field	*	1.00		**4.86**		1	11/13/2025 14:25	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2140**	µmhos/cm @25C	1	11/13/2025 14:25	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1590**	mg/L	1	11/18/2025 10:51	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/16/2025 21:25	R374783
Chloride	NELAP	5.00		**51.8**	mg/L	10	11/16/2025 21:25	R374783
Sulfate	NELAP	10.0		**828**	mg/L	10	11/16/2025 21:25	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**248**	µg/L	1	11/17/2025 11:59	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 11:59	247986
Boron	NELAP	200		**21400**	µg/L	10	11/19/2025 16:50	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 11:59	247986
Calcium	NELAP	0.100		**251**	mg/L	1	11/17/2025 11:59	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 11:59	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 11:59	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 11:59	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 11:59	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 3:39	247986
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 3:39	247986
Lithium	*	3.0		**8.6**	µg/L	5	11/18/2025 13:43	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 3:39	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 13:43	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:06	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Combined 226/228 Uncertainty	*	0		**0.44**	+/-	1	12/19/2025 11:15	R377436
Radium-226	*	1.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Radium-226 Uncertainty	*	0		**0.10**	+/-	1	12/19/2025 11:15	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 11:20	R377439
Radium-228 Uncertainty	*	0		**0.34**	+/-	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 11/12/2025 13:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	11/12/2025 13:54	R374970
Depth to water	*	-5.00		**7.12**	ft	1	11/12/2025 13:54	R374970
Depth to water from measuring point	*	0		**9.62**	ft	1	11/12/2025 13:54	R374970
Elevation of groundwater surface	*	0		**526.48**	ft	1	11/12/2025 13:54	R374970
Measuring Point Elevation	*	0		**536.10**	ft	1	11/12/2025 13:54	R374970
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	11/12/2025 13:54	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**20**	NTU	1	11/12/2025 13:54	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.6**	°F	1	11/12/2025 13:54	R374970
SW-846 9040B								
pH, Field	*	1.00		**4.55**		1	11/12/2025 13:54	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1740**	µmhos/cm @25C	1	11/12/2025 13:54	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1190**	mg/L	1	11/17/2025 14:23	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2025 16:38	R374691
Chloride	NELAP	5.00		**37.0**	mg/L	10	11/13/2025 16:38	R374691
Sulfate	NELAP	10.0		**389**	mg/L	10	11/13/2025 16:38	R374691
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**74.9**	µg/L	1	11/18/2025 10:17	247867
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/18/2025 10:17	247867
Boron	NELAP	20.0		**3150**	µg/L	1	11/18/2025 10:17	247867
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/18/2025 10:17	247867
Calcium	NELAP	0.100	B	**213**	mg/L	1	11/18/2025 10:17	247867
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/18/2025 10:17	247867
Cobalt	NELAP	5.0		**7.8**	µg/L	1	11/18/2025 10:17	247867
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/18/2025 10:17	247867
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/18/2025 10:17	247867
Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**2.1**	µg/L	5	11/14/2025 19:32	247867
Arsenic	NELAP	1.0		**1.4**	µg/L	5	11/13/2025 20:32	247867
Lithium	*	3.0		**6.1**	µg/L	5	11/14/2025 19:32	247867
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/13/2025 20:32	247867
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/14/2025 19:32	247867
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/14/2025 19:06	247892
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Combined 226/228 Uncertainty	*	0		**0.38**	+/-	1	12/19/2025 11:15	R377436
Radium-226	*	1.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	12/19/2025 11:15	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 11/12/2025 13:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.30**	+/-	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power **Work Order:** 25110404

Client Project: Ash Pond Monitoring Wells **Report Date:** 13-Jan-26

Lab ID: 25110404-004 **Client Sample ID:** AP-3

Matrix: GROUNDWATER **Collection Date:** 11/12/2025 13:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	11/12/2025 13:17	R374970
Depth to water	*	-5.00		**7.33**	ft	1	11/12/2025 13:17	R374970
Depth to water from measuring point	*	0		**9.88**	ft	1	11/12/2025 13:17	R374970
Elevation of groundwater surface	*	0		**525.37**	ft	1	11/12/2025 13:17	R374970
Measuring Point Elevation	*	0		**535.25**	ft	1	11/12/2025 13:17	R374970
Measuring Point Height Above Land Surface	*	0		**2.55**	ft	1	11/12/2025 13:17	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.1**	NTU	1	11/12/2025 13:17	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.9**	°F	1	11/12/2025 13:17	R374970
SW-846 9040B								
pH, Field	*	1.00		**4.93**		1	11/12/2025 13:17	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1740**	µmhos/cm @25C	1	11/12/2025 13:17	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1310**	mg/L	1	11/17/2025 14:23	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2025 16:50	R374691
Chloride	NELAP	5.00		**70.8**	mg/L	10	11/13/2025 16:50	R374691
Sulfate	NELAP	10.0		**588**	mg/L	10	11/13/2025 16:50	R374691
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**117**	µg/L	1	11/18/2025 10:46	247867
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/18/2025 10:46	247867
Boron	NELAP	20.0		**18000**	µg/L	1	11/18/2025 10:46	247867
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/18/2025 10:46	247867
Calcium	NELAP	0.100	B	**192**	mg/L	1	11/18/2025 10:46	247867
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/18/2025 10:46	247867
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/18/2025 10:46	247867
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/18/2025 10:46	247867
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/18/2025 10:46	247867
Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**1.5**	µg/L	5	11/14/2025 19:37	247867
Arsenic	NELAP	1.0		**13.5**	µg/L	5	11/13/2025 20:38	247867
Lithium	*	3.0		**6.2**	µg/L	5	11/14/2025 19:37	247867
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/13/2025 20:38	247867
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/14/2025 19:37	247867
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/14/2025 19:13	247892
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Combined 226/228 Uncertainty	*	0		**0.40**	+/-	1	12/19/2025 11:15	R377436
Radium-226	*	1.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	12/19/2025 11:15	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 11/12/2025 13:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.33**	+/-	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-005
Client Sample ID: AP-4
Matrix: GROUNDWATER
Collection Date: 11/13/2025 13:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.19**	ft	1	11/13/2025 13:43	R374970
Depth to water	*	-5.00		**9.80**	ft	1	11/13/2025 13:43	R374970
Depth to water from measuring point	*	0		**12.94**	ft	1	11/13/2025 13:43	R374970
Elevation of groundwater surface	*	0		**542.66**	ft	1	11/13/2025 13:43	R374970
Measuring Point Elevation	*	0		**555.60**	ft	1	11/13/2025 13:43	R374970
Measuring Point Height Above Land Surface	*	0		**3.14**	ft	1	11/13/2025 13:43	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**62**	NTU	1	11/13/2025 13:43	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.0**	°F	1	11/13/2025 13:43	R374970
SW-846 9040B								
pH, Field	*	1.00		**6.76**		1	11/13/2025 13:43	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**914**	µmhos/cm @25C	1	11/13/2025 13:43	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**532**	mg/L	1	11/18/2025 10:51	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/16/2025 21:37	R374783
Chloride	NELAP	5.00		**12.8**	mg/L	10	11/16/2025 21:37	R374783
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/16/2025 21:37	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**417**	µg/L	1	11/17/2025 11:59	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 11:59	247986
Boron	NELAP	20.0		**91.4**	µg/L	1	11/17/2025 11:59	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 11:59	247986
Calcium	NELAP	0.100		**128**	mg/L	1	11/17/2025 11:59	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 11:59	247986
Cobalt	NELAP	5.0		**6.7**	µg/L	1	11/20/2025 15:22	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 11:59	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 11:59	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 3:44	247986
Arsenic	NELAP	1.0		**21.9**	µg/L	5	11/18/2025 3:44	247986
Lithium	*	3.0		**9.0**	µg/L	5	11/18/2025 13:49	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 3:44	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 13:49	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:08	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Combined 226/228 Uncertainty	*	0		**0.47**	+/-	1	12/19/2025 11:15	R377436
Radium-226	*	1.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Radium-226 Uncertainty	*	0		**0.13**	+/-	1	12/19/2025 11:15	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 11:20	R377439
Radium-228 Uncertainty	*	0		**0.34**	+/-	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power **Work Order:** 25110404

Client Project: Ash Pond Monitoring Wells **Report Date:** 13-Jan-26

Lab ID: 25110404-006 **Client Sample ID:** AP-5

Matrix: GROUNDWATER **Collection Date:** 11/13/2025 13:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**552.63**	ft	1	11/13/2025 13:04	R374970
Depth to water	*	-5.00		**18.32**	ft	1	11/13/2025 13:04	R374970
Depth to water from measuring point	*	0		**20.62**	ft	1	11/13/2025 13:04	R374970
Elevation of groundwater surface	*	0		**563.28**	ft	1	11/13/2025 13:04	R374970
Measuring Point Elevation	*	0		**583.90**	ft	1	11/13/2025 13:04	R374970
Measuring Point Height Above Land Surface	*	0		**2.30**	ft	1	11/13/2025 13:04	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**1.9**	NTU	1	11/13/2025 13:04	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.6**	°F	1	11/13/2025 13:04	R374970
SW-846 9040B								
pH, Field	*	1.00		**6.83**		1	11/13/2025 13:04	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**788**	µmhos/cm @25C	1	11/13/2025 13:04	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**498**	mg/L	1	11/18/2025 10:51	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/16/2025 21:50	R374783
Chloride	NELAP	5.00		**9.78**	mg/L	10	11/16/2025 21:50	R374783
Sulfate	NELAP	10.0		**70.9**	mg/L	10	11/16/2025 21:50	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**60.4**	µg/L	1	11/17/2025 12:00	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 12:00	247986
Boron	NELAP	20.0		**38.6**	µg/L	1	11/17/2025 12:00	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 12:00	247986
Calcium	NELAP	0.100		**109**	mg/L	1	11/17/2025 12:00	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 12:00	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 12:00	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 12:00	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 12:00	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 3:50	247986
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 3:50	247986
Lithium	*	3.0		**4.1**	µg/L	5	11/18/2025 13:54	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 3:50	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 13:54	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:11	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Combined 226/228 Uncertainty	*	0		**0.37**	+/-	1	12/19/2025 11:15	R377436
Radium-226	*	1.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	12/19/2025 11:15	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 11:20	R377439
Radium-228 Uncertainty	*	0		**0.33**	+/-	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-007
Client Sample ID: AP-6
Matrix: GROUNDWATER
Collection Date: 11/13/2025 12:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.20**	ft	1	11/13/2025 12:58	R374970
Depth to water	*	-5.00		**8.91**	ft	1	11/13/2025 12:58	R374970
Depth to water from measuring point	*	0		**11.33**	ft	1	11/13/2025 12:58	R374970
Elevation of groundwater surface	*	0		**526.49**	ft	1	11/13/2025 12:58	R374970
Measuring Point Elevation	*	0		**537.82**	ft	1	11/13/2025 12:58	R374970
Measuring Point Height Above Land Surface	*	0		**2.42**	ft	1	11/13/2025 12:58	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.6**	NTU	1	11/13/2025 12:58	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.6**	°F	1	11/13/2025 12:58	R374970
SW-846 9040B								
pH, Field	*	1.00		**7.06**		1	11/13/2025 12:58	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**737**	µmhos/cm @25C	1	11/13/2025 12:58	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**450**	mg/L	1	11/18/2025 11:02	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**0.53**	mg/L	10	11/16/2025 22:28	R374783
Chloride	NELAP	5.00		**38.0**	mg/L	10	11/16/2025 22:28	R374783
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/16/2025 22:28	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**199**	µg/L	1	11/17/2025 15:58	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 15:58	247986
Boron	NELAP	20.0		**272**	µg/L	1	11/17/2025 15:58	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 15:58	247986
Calcium	NELAP	0.100		**69.8**	mg/L	1	11/17/2025 15:58	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 15:58	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 15:58	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 15:58	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 15:58	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 3:55	247986
Arsenic	NELAP	1.0		**11.2**	µg/L	5	11/18/2025 3:55	247986
Lithium	*	3.0		**7.5**	µg/L	5	11/18/2025 14:00	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 3:55	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 14:00	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:13	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Combined 226/228 Uncertainty	*	0		**0.41**	+/-	1	12/19/2025 11:15	R377436
Radium-226	*	1.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	12/19/2025 11:15	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 11:20	R377439
Radium-228 Uncertainty	*	0		**0.34**	+/-	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power **Work Order:** 25110404

Client Project: Ash Pond Monitoring Wells **Report Date:** 13-Jan-26

Lab ID: 25110404-008 **Client Sample ID:** AP-7

Matrix: GROUNDWATER **Collection Date:** 11/13/2025 12:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	11/13/2025 12:19	R374970
Depth to water	*	-5.00		**11.26**	ft	1	11/13/2025 12:19	R374970
Depth to water from measuring point	*	0		**13.92**	ft	1	11/13/2025 12:19	R374970
Elevation of groundwater surface	*	0		**525.10**	ft	1	11/13/2025 12:19	R374970
Measuring Point Elevation	*	0		**539.02**	ft	1	11/13/2025 12:19	R374970
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	11/13/2025 12:19	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**59**	NTU	1	11/13/2025 12:19	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.4**	°F	1	11/13/2025 12:19	R374970
SW-846 9040B								
pH, Field	*	1.00		**7.06**		1	11/13/2025 12:19	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**903**	µmhos/cm @25C	1	11/13/2025 12:19	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**522**	mg/L	1	11/18/2025 11:03	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**0.53**	mg/L	10	11/16/2025 22:41	R374783
Chloride	NELAP	5.00		**88.5**	mg/L	10	11/16/2025 22:41	R374783
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/16/2025 22:41	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**152**	µg/L	1	11/17/2025 15:58	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 15:58	247986
Boron	NELAP	20.0		**475**	µg/L	1	11/17/2025 15:58	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 15:58	247986
Calcium	NELAP	0.100	S	**55.9**	mg/L	1	11/17/2025 15:58	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 15:58	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 15:58	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 15:58	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 15:58	247986
Matrix spike control limits for CA are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 5:25	247986
Arsenic	NELAP	1.0		**18.2**	µg/L	5	11/18/2025 5:25	247986
Lithium	*	3.0		**10.3**	µg/L	5	11/18/2025 13:04	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 5:25	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 13:04	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:15	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Combined 226/228 Uncertainty	*	0		**0.41**	+/-	1	12/19/2025 11:15	R377436
Radium-226	*	1.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	12/19/2025 11:15	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 11/13/2025 12:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.34**	+/-	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 11/13/2025 13:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	11/13/2025 13:53	R374970
Depth to water	*	-5.00		**6.58**	ft	1	11/13/2025 13:53	R374970
Depth to water from measuring point	*	0		**9.48**	ft	1	11/13/2025 13:53	R374970
Elevation of groundwater surface	*	0		**527.72**	ft	1	11/13/2025 13:53	R374970
Measuring Point Elevation	*	0		**537.20**	ft	1	11/13/2025 13:53	R374970
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	11/13/2025 13:53	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	11/13/2025 13:53	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.7**	°F	1	11/13/2025 13:53	R374970
SW-846 9040B								
pH, Field	*	1.00		**6.11**		1	11/13/2025 13:53	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1160**	µmhos/cm @25C	1	11/13/2025 13:53	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**550**	mg/L	1	11/18/2025 11:03	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/16/2025 22:53	R374783
Chloride	NELAP	5.00		**24.2**	mg/L	10	11/16/2025 22:53	R374783
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/16/2025 22:53	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**373**	µg/L	1	11/17/2025 16:01	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:01	247986
Boron	NELAP	20.0		**82.1**	µg/L	1	11/17/2025 16:01	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:01	247986
Calcium	NELAP	0.100		**103**	mg/L	1	11/17/2025 16:01	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:01	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:01	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:01	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:01	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 4:41	247986
Arsenic	NELAP	1.0		**37.2**	µg/L	5	11/18/2025 4:41	247986
Lithium	*	3.0		**6.5**	µg/L	5	11/18/2025 14:05	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 4:41	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 14:05	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:18	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Combined 226/228 Uncertainty	*	0		**0.59**	+/-	1	12/19/2025 11:15	R377436
Radium-226	*	1.0		**1.4**	pci/L	1	12/19/2025 11:15	R377436
Radium-226 Uncertainty	*	0		**0.16**	+/-	1	12/19/2025 11:15	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 11:20	R377439
Radium-228 Uncertainty	*	0		**0.43**	+/-	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-010
Client Sample ID: AP-9
Matrix: GROUNDWATER
Collection Date: 11/13/2025 9:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.70**	ft	1	11/13/2025 9:38	R374970
Depth to water	*	-5.00		**11.09**	ft	1	11/13/2025 9:38	R374970
Depth to water from measuring point	*	0		**14.19**	ft	1	11/13/2025 9:38	R374970
Elevation of groundwater surface	*	0		**526.11**	ft	1	11/13/2025 9:38	R374970
Measuring Point Elevation	*	0		**540.30**	ft	1	11/13/2025 9:38	R374970
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	11/13/2025 9:38	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.8**	NTU	1	11/13/2025 9:38	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.0**	°F	1	11/13/2025 9:38	R374970
SW-846 9040B								
pH, Field	*	1.00		**6.57**		1	11/13/2025 9:38	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1070**	µmhos/cm @25C	1	11/13/2025 9:38	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**614**	mg/L	1	11/18/2025 11:03	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/16/2025 23:06	R374783
Chloride	NELAP	5.00		**25.5**	mg/L	10	11/16/2025 23:06	R374783
Sulfate	NELAP	10.0		**15.5**	mg/L	10	11/16/2025 23:06	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**437**	µg/L	1	11/17/2025 16:01	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:01	247986
Boron	NELAP	20.0		**98.5**	µg/L	1	11/17/2025 16:01	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:01	247986
Calcium	NELAP	0.100		**111**	mg/L	1	11/17/2025 16:01	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:01	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:01	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:01	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:01	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 4:46	247986
Arsenic	NELAP	1.0		**1.6**	µg/L	5	11/18/2025 4:46	247986
Lithium	*	3.0		**5.9**	µg/L	5	11/18/2025 14:11	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 4:46	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 14:11	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:20	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Combined 226/228 Uncertainty	*	0		**0.42**	+/-	1	12/19/2025 11:15	R377436
Radium-226	*	1.0		**ND**	pci/L	1	12/19/2025 11:15	R377436
Radium-226 Uncertainty	*	0		**0.11**	+/-	1	12/19/2025 11:15	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 11:20	R377439
Radium-228 Uncertainty	*	0		**0.31**	+/-	1	01/02/2026 11:20	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-011
Client Sample ID: AP10
Matrix: GROUNDWATER
Collection Date: 11/12/2025 14:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**499.43**	ft	1	11/12/2025 14:32	R374970
Depth to water	*	-5.00		**4.63**	ft	1	11/12/2025 14:32	R374970
Depth to water from measuring point	*	0		**7.73**	ft	1	11/12/2025 14:32	R374970
Elevation of groundwater surface	*	0		**529.77**	ft	1	11/12/2025 14:32	R374970
Measuring Point Elevation	*	0		**537.50**	ft	1	11/12/2025 14:32	R374970
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	11/12/2025 14:32	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.7**	NTU	1	11/12/2025 14:32	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.8**	°F	1	11/12/2025 14:32	R374970
SW-846 9040B								
pH, Field	*	1.00		**5.37**		1	11/12/2025 14:32	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1470**	µmhos/cm @25C	1	11/12/2025 14:32	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**834**	mg/L	1	11/17/2025 14:38	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/13/2025 17:03	R374691
Chloride	NELAP	5.00		**25.9**	mg/L	10	11/13/2025 17:03	R374691
Sulfate	NELAP	10.0		**90.8**	mg/L	10	11/13/2025 17:03	R374691
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**601**	µg/L	1	11/18/2025 10:48	247867
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/18/2025 10:48	247867
Boron	NELAP	20.0		**3880**	µg/L	1	11/18/2025 10:48	247867
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/18/2025 10:48	247867
Calcium	NELAP	0.100	B	**141**	mg/L	1	11/18/2025 10:48	247867
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/18/2025 10:48	247867
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/18/2025 10:48	247867
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/18/2025 10:48	247867
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/18/2025 10:48	247867
Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**1.1**	µg/L	5	11/14/2025 19:43	247867
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	11/13/2025 20:44	247867
Lithium	*	3.0		**8.2**	µg/L	5	11/14/2025 19:43	247867
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/13/2025 20:44	247867
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/14/2025 19:43	247867
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/14/2025 19:16	247892
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.55**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**1.0**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.14**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-011
Client Sample ID: AP10
Matrix: GROUNDWATER
Collection Date: 11/12/2025 14:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.41**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-012
Client Sample ID: AP11
Matrix: GROUNDWATER
Collection Date: 11/13/2025 9:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.15**	ft	1	11/13/2025 9:40	R374970
Depth to water	*	-5.00		**12.78**	ft	1	11/13/2025 9:40	R374970
Depth to water from measuring point	*	0		**15.58**	ft	1	11/13/2025 9:40	R374970
Elevation of groundwater surface	*	0		**522.52**	ft	1	11/13/2025 9:40	R374970
Measuring Point Elevation	*	0		**538.10**	ft	1	11/13/2025 9:40	R374970
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	11/13/2025 9:40	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.4**	NTU	1	11/13/2025 9:40	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.9**	°F	1	11/13/2025 9:40	R374970
SW-846 9040B								
pH, Field	*	1.00		**4.79**		1	11/13/2025 9:40	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1270**	µmhos/cm @25C	1	11/13/2025 9:40	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**694**	mg/L	1	11/18/2025 11:03	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/16/2025 23:18	R374783
Chloride	NELAP	5.00		**113**	mg/L	10	11/16/2025 23:18	R374783
Sulfate	NELAP	10.0		**68.9**	mg/L	10	11/16/2025 23:18	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**120**	µg/L	1	11/17/2025 16:02	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:02	247986
Boron	NELAP	20.0		**276**	µg/L	1	11/17/2025 16:02	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:02	247986
Calcium	NELAP	0.100		**133**	mg/L	1	11/17/2025 16:02	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:02	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:02	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:02	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:02	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 4:52	247986
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 4:52	247986
Lithium	*	3.0		**4.9**	µg/L	5	11/18/2025 14:16	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 4:52	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 14:16	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:22	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.34**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.29**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-013
Client Sample ID: AP12
Matrix: GROUNDWATER
Collection Date: 11/13/2025 11:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**510.30**	ft	1	11/13/2025 11:04	R374970
Depth to water	*	-5.00		**15.34**	ft	1	11/13/2025 11:04	R374970
Depth to water from measuring point	*	0		**18.24**	ft	1	11/13/2025 11:04	R374970
Elevation of groundwater surface	*	0		**522.46**	ft	1	11/13/2025 11:04	R374970
Measuring Point Elevation	*	0		**540.70**	ft	1	11/13/2025 11:04	R374970
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	11/13/2025 11:04	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**15**	NTU	1	11/13/2025 11:04	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.2**	°F	1	11/13/2025 11:04	R374970
SW-846 9040B								
pH, Field	*	1.00		**4.74**		1	11/13/2025 11:04	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1730**	µmhos/cm @25C	1	11/13/2025 11:04	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1150**	mg/L	1	11/18/2025 11:03	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/17/2025 0:09	R374783
Chloride	NELAP	5.00		**115**	mg/L	10	11/17/2025 0:09	R374783
Sulfate	NELAP	10.0		**395**	mg/L	10	11/17/2025 0:09	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**52.5**	µg/L	1	11/17/2025 16:06	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:06	247986
Boron	NELAP	20.0		**24.9**	µg/L	1	11/17/2025 16:06	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:06	247986
Calcium	NELAP	0.100		**193**	mg/L	1	11/17/2025 16:06	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:06	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:06	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:06	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:06	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 4:57	247986
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 4:57	247986
Lithium	*	3.0		**6.2**	µg/L	5	11/18/2025 15:18	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 4:57	247986
Thallium	NELAP	2.0		**2.7**	µg/L	5	11/18/2025 15:18	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:25	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.38**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.33**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-014
Client Sample ID: AP13
Matrix: GROUNDWATER
Collection Date: 11/13/2025 11:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.00**	ft	1	11/13/2025 11:40	R374970
Depth to water	*	-5.00		**16.64**	ft	1	11/13/2025 11:40	R374970
Depth to water from measuring point	*	0		**20.04**	ft	1	11/13/2025 11:40	R374970
Elevation of groundwater surface	*	0		**521.96**	ft	1	11/13/2025 11:40	R374970
Measuring Point Elevation	*	0		**542.00**	ft	1	11/13/2025 11:40	R374970
Measuring Point Height Above Land Surface	*	0		**3.40**	ft	1	11/13/2025 11:40	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**11**	NTU	1	11/13/2025 11:40	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.9**	°F	1	11/13/2025 11:40	R374970
SW-846 9040B								
pH, Field	*	1.00		**5.22**		1	11/13/2025 11:40	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**982**	µmhos/cm @25C	1	11/13/2025 11:40	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**580**	mg/L	1	11/18/2025 12:42	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/17/2025 0:22	R374783
Chloride	NELAP	5.00		**26.3**	mg/L	10	11/17/2025 0:22	R374783
Sulfate	NELAP	10.0		**120**	mg/L	10	11/17/2025 0:22	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**120**	µg/L	1	11/17/2025 16:07	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:07	247986
Boron	NELAP	20.0		**25.7**	µg/L	1	11/17/2025 16:07	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:07	247986
Calcium	NELAP	0.100		**115**	mg/L	1	11/17/2025 16:07	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:07	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:07	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:07	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:07	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 5:03	247986
Arsenic	NELAP	1.0		**1.8**	µg/L	5	11/18/2025 5:03	247986
Lithium	*	3.0		**11.4**	µg/L	5	11/18/2025 15:23	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 5:03	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 15:23	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:27	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.40**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.10**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.30**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-015
Client Sample ID: AP14
Matrix: GROUNDWATER
Collection Date: 11/13/2025 13:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**508.40**	ft	1	11/13/2025 13:14	R374970
Depth to water	*	-5.00		**1.93**	ft	1	11/13/2025 13:14	R374970
Depth to water from measuring point	*	0		**4.73**	ft	1	11/13/2025 13:14	R374970
Elevation of groundwater surface	*	0		**534.87**	ft	1	11/13/2025 13:14	R374970
Measuring Point Elevation	*	0		**539.60**	ft	1	11/13/2025 13:14	R374970
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	11/13/2025 13:14	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**11**	NTU	1	11/13/2025 13:14	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.6**	°F	1	11/13/2025 13:14	R374970
SW-846 9040B								
pH, Field	*	1.00		**6.24**		1	11/13/2025 13:14	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2430**	µmhos/cm @25C	1	11/13/2025 13:14	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1900**	mg/L	1	11/18/2025 12:42	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/17/2025 0:35	R374783
Chloride	NELAP	5.00		**120**	mg/L	10	11/17/2025 0:35	R374783
Sulfate	NELAP	10.0		**1040**	mg/L	10	11/17/2025 0:35	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**48.6**	µg/L	1	11/17/2025 16:08	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:08	247986
Boron	NELAP	200		**20800**	µg/L	10	11/19/2025 16:51	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:08	247986
Calcium	NELAP	0.100		**317**	mg/L	1	11/17/2025 16:08	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:08	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:08	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:08	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:08	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 5:08	247986
Arsenic	NELAP	1.0		**1.7**	µg/L	5	11/18/2025 5:08	247986
Lithium	*	3.0		**8.0**	µg/L	5	11/18/2025 15:29	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 5:08	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 15:29	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:34	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.63**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.090**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**1.5**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.54**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power **Work Order:** 25110404

Client Project: Ash Pond Monitoring Wells **Report Date:** 13-Jan-26

Lab ID: 25110404-016 **Client Sample ID:** T-01

Matrix: GROUNDWATER **Collection Date:** 11/13/2025 12:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**512.70**	ft	1	11/13/2025 12:21	R374970
Depth to water	*	-5.00		**14.55**	ft	1	11/13/2025 12:21	R374970
Depth to water from measuring point	*	0		**14.88**	ft	1	11/13/2025 12:21	R374970
Elevation of groundwater surface	*	0		**520.77**	ft	1	11/13/2025 12:21	R374970
Measuring Point Elevation	*	0		**535.65**	ft	1	11/13/2025 12:21	R374970
Measuring Point Height Above Land Surface	*	0		**0.33**	ft	1	11/13/2025 12:21	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**18**	NTU	1	11/13/2025 12:21	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.3**	°F	1	11/13/2025 12:21	R374970
SW-846 9040B								
pH, Field	*	1.00		**4.54**		1	11/13/2025 12:21	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1810**	µmhos/cm @25C	1	11/13/2025 12:21	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1020**	mg/L	1	11/18/2025 12:42	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/17/2025 0:47	R374783
Chloride	NELAP	5.00		**253**	mg/L	10	11/17/2025 0:47	R374783
Sulfate	NELAP	10.0		**169**	mg/L	10	11/17/2025 0:47	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**62.1**	µg/L	1	11/17/2025 16:09	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:09	247986
Boron	NELAP	20.0		**175**	µg/L	1	11/17/2025 16:09	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:09	247986
Calcium	NELAP	0.100		**164**	mg/L	1	11/17/2025 16:09	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:09	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:09	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:09	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:09	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 5:19	247986
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 5:19	247986
Lithium	*	3.0		**17.6**	µg/L	5	11/18/2025 15:34	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 5:19	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 15:34	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 14:41	247982
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.41**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.36**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power **Work Order:** 25110404

Client Project: Ash Pond Monitoring Wells **Report Date:** 13-Jan-26

Lab ID: 25110404-017 **Client Sample ID:** T-02

Matrix: GROUNDWATER **Collection Date:** 11/13/2025 10:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.18**	ft	1	11/13/2025 10:17	R374970
Depth to water	*	-5.00		**25.63**	ft	1	11/13/2025 10:17	R374970
Depth to water from measuring point	*	0		**28.03**	ft	1	11/13/2025 10:17	R374970
Elevation of groundwater surface	*	0		**521.59**	ft	1	11/13/2025 10:17	R374970
Measuring Point Elevation	*	0		**549.62**	ft	1	11/13/2025 10:17	R374970
Measuring Point Height Above Land Surface	*	0		**2.40**	ft	1	11/13/2025 10:17	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.1**	NTU	1	11/13/2025 10:17	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.5**	°F	1	11/13/2025 10:17	R374970
SW-846 9040B								
pH, Field	*	1.00		**4.89**		1	11/13/2025 10:17	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2310**	µmhos/cm @25C	1	11/13/2025 10:17	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1370**	mg/L	1	11/18/2025 12:42	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/17/2025 1:00	R374783
Chloride	NELAP	5.00		**427**	mg/L	10	11/17/2025 1:00	R374783
Sulfate	NELAP	10.0		**90.0**	mg/L	10	11/17/2025 1:00	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**193**	µg/L	1	11/17/2025 16:09	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:09	247986
Boron	NELAP	20.0		**48.7**	µg/L	1	11/17/2025 16:09	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:09	247986
Calcium	NELAP	0.100		**209**	mg/L	1	11/17/2025 16:09	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:09	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:09	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:09	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:09	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 15:40	247986
Arsenic	NELAP	1.0		**7.3**	µg/L	5	11/18/2025 15:40	247986
Lithium	*	3.0		**31.0**	µg/L	5	11/18/2025 15:40	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 15:40	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 15:40	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 18:31	247984
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.56**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.11**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.45**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power **Work Order:** 25110404

Client Project: Ash Pond Monitoring Wells **Report Date:** 13-Jan-26

Lab ID: 25110404-018 **Client Sample ID:** T-04

Matrix: GROUNDWATER **Collection Date:** 11/13/2025 10:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**521.52**	ft	1	11/13/2025 10:27	R374970
Depth to water	*	-5.00		**17.70**	ft	1	11/13/2025 10:27	R374970
Depth to water from measuring point	*	0		**20.08**	ft	1	11/13/2025 10:27	R374970
Elevation of groundwater surface	*	0		**528.86**	ft	1	11/13/2025 10:27	R374970
Measuring Point Elevation	*	0		**548.94**	ft	1	11/13/2025 10:27	R374970
Measuring Point Height Above Land Surface	*	0		**2.38**	ft	1	11/13/2025 10:27	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.6**	NTU	1	11/13/2025 10:27	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.8**	°F	1	11/13/2025 10:27	R374970
SW-846 9040B								
pH, Field	*	1.00		**6.43**		1	11/13/2025 10:27	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**545**	µmhos/cm @25C	1	11/13/2025 10:27	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**372**	mg/L	1	11/18/2025 13:01	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/17/2025 1:13	R374783
Chloride	NELAP	5.00		**ND**	mg/L	10	11/17/2025 1:13	R374783
Sulfate	NELAP	10.0		**77.9**	mg/L	10	11/17/2025 1:13	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**38.2**	µg/L	1	11/17/2025 16:10	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:10	247986
Boron	NELAP	20.0		**42.6**	µg/L	1	11/17/2025 16:10	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:10	247986
Calcium	NELAP	0.100		**65.8**	mg/L	1	11/17/2025 16:10	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:10	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:10	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:10	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:10	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 16:31	247986
Arsenic	NELAP	1.0		**3.0**	µg/L	5	11/18/2025 16:31	247986
Lithium	*	3.0		**13.6**	µg/L	5	11/18/2025 16:31	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 16:31	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 16:31	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 18:33	247984
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.48**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.41**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-019
Client Sample ID: T-05
Matrix: GROUNDWATER
Collection Date: 11/13/2025 11:01

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**518.32**	ft	1	11/13/2025 11:01	R374970
Depth to water	*	-5.00		**11.48**	ft	1	11/13/2025 11:01	R374970
Depth to water from measuring point	*	0		**13.99**	ft	1	11/13/2025 11:01	R374970
Elevation of groundwater surface	*	0		**526.67**	ft	1	11/13/2025 11:01	R374970
Measuring Point Elevation	*	0		**540.66**	ft	1	11/13/2025 11:01	R374970
Measuring Point Height Above Land Surface	*	0		**2.51**	ft	1	11/13/2025 11:01	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.0**	NTU	1	11/13/2025 11:01	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.2**	°F	1	11/13/2025 11:01	R374970
SW-846 9040B								
pH, Field	*	1.00		**6.64**		1	11/13/2025 11:01	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**726**	µmhos/cm @25C	1	11/13/2025 11:01	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**496**	mg/L	1	11/18/2025 13:01	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/17/2025 1:25	R374783
Chloride	NELAP	5.00		**ND**	mg/L	10	11/17/2025 1:25	R374783
Sulfate	NELAP	10.0		**87.4**	mg/L	10	11/17/2025 1:25	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**76.2**	µg/L	1	11/17/2025 16:11	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:11	247986
Boron	NELAP	20.0		**106**	µg/L	1	11/17/2025 16:11	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:11	247986
Calcium	NELAP	0.100		**99.4**	mg/L	1	11/17/2025 16:11	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:11	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:11	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:11	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:11	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 16:36	247986
Arsenic	NELAP	1.0		**2.2**	µg/L	5	11/18/2025 16:36	247986
Lithium	*	3.0		**15.5**	µg/L	5	11/18/2025 16:36	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 16:36	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 16:36	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 18:36	247984
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.46**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.38**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-020
Client Sample ID: T-06
Matrix: GROUNDWATER
Collection Date: 11/13/2025 11:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**494.70**	ft	1	11/13/2025 11:32	R374970
Depth to water	*	-5.00		**9.62**	ft	1	11/13/2025 11:32	R374970
Depth to water from measuring point	*	0		**11.98**	ft	1	11/13/2025 11:32	R374970
Elevation of groundwater surface	*	0		**526.34**	ft	1	11/13/2025 11:32	R374970
Measuring Point Elevation	*	0		**538.32**	ft	1	11/13/2025 11:32	R374970
Measuring Point Height Above Land Surface	*	0		**2.36**	ft	1	11/13/2025 11:32	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**35**	NTU	1	11/13/2025 11:32	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.8**	°F	1	11/13/2025 11:32	R374970
SW-846 9040B								
pH, Field	*	1.00		**6.76**		1	11/13/2025 11:32	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**940**	µmhos/cm @25C	1	11/13/2025 11:32	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**558**	mg/L	1	11/18/2025 13:01	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/17/2025 1:38	R374783
Chloride	NELAP	5.00		**19.8**	mg/L	10	11/17/2025 1:38	R374783
Sulfate	NELAP	10.0		**ND**	mg/L	10	11/17/2025 1:38	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**305**	µg/L	1	11/17/2025 16:12	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:12	247986
Boron	NELAP	20.0		**214**	µg/L	1	11/17/2025 16:12	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:12	247986
Calcium	NELAP	0.100		**97.7**	mg/L	1	11/17/2025 16:12	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:12	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:12	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:12	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:12	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 16:42	247986
Arsenic	NELAP	1.0		**14.5**	µg/L	5	11/18/2025 16:42	247986
Lithium	*	3.0		**10.5**	µg/L	5	11/18/2025 16:42	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 16:42	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 16:42	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 18:38	247984
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.51**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.13**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.38**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-021
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 11/13/2025 13:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	11/13/2025 13:47	R374970
Depth to water	*	-5.00		**16.51**	ft	1	11/13/2025 13:47	R374970
Depth to water from measuring point	*	0		**19.26**	ft	1	11/13/2025 13:47	R374970
Elevation of groundwater surface	*	0		**536.34**	ft	1	11/13/2025 13:47	R374970
Measuring Point Elevation	*	0		**555.60**	ft	1	11/13/2025 13:47	R374970
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	11/13/2025 13:47	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.8**	NTU	1	11/13/2025 13:47	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.7**	°F	1	11/13/2025 13:47	R374970
SW-846 9040B								
pH, Field	*	1.00		**6.62**		1	11/13/2025 13:47	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1360**	µmhos/cm @25C	1	11/13/2025 13:47	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1120**	mg/L	1	11/18/2025 13:01	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/17/2025 1:51	R374783
Chloride	NELAP	5.00		**38.2**	mg/L	10	11/17/2025 1:51	R374783
Sulfate	NELAP	10.0		**403**	mg/L	10	11/17/2025 1:51	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**218**	µg/L	1	11/17/2025 16:12	247986
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	11/17/2025 16:12	247986
Boron	NELAP	20.0		**9670**	µg/L	1	11/17/2025 16:12	247986
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	11/17/2025 16:12	247986
Calcium	NELAP	0.100		**209**	mg/L	1	11/17/2025 16:12	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:12	247986
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:12	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:12	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:12	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 16:47	247986
Arsenic	NELAP	1.0		**130**	µg/L	5	11/18/2025 16:47	247986
Lithium	*	3.0		**10.5**	µg/L	5	11/18/2025 16:47	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 16:47	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 16:47	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/18/2025 18:40	247984
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.45**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**ND**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.090**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**ND**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.36**	+/-	1	01/02/2026 13:47	R377439

Client: City Water, Light & Power
Work Order: 25110404
Client Project: Ash Pond Monitoring Wells
Report Date: 13-Jan-26
Lab ID: 25110404-022
Client Sample ID: G120
Matrix: GROUNDWATER
Collection Date: 11/13/2025 10:22

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	11/13/2025 10:22	R374970
Depth to water	*	-5.00		**20.72**	ft	1	11/13/2025 10:22	R374970
Depth to water from measuring point	*	0		**20.72**	ft	1	11/13/2025 10:22	R374970
Elevation of groundwater surface	*	0		**532.38**	ft	1	11/13/2025 10:22	R374970
Measuring Point Elevation	*	0		**553.10**	ft	1	11/13/2025 10:22	R374970
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	11/13/2025 10:22	R374970
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**39**	NTU	1	11/13/2025 10:22	R374970
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.9**	°F	1	11/13/2025 10:22	R374970
SW-846 9040B								
pH, Field	*	1.00		**6.67**		1	11/13/2025 10:22	R374970
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1750**	µmhos/cm @25C	1	11/13/2025 10:22	R374970
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	25		**1500**	mg/L	1.25	11/18/2025 13:01	R374847
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	11/17/2025 2:03	R374783
Chloride	NELAP	5.00		**38.3**	mg/L	10	11/17/2025 2:03	R374783
Sulfate	NELAP	10.0		**578**	mg/L	10	11/17/2025 2:03	R374783
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**1350**	µg/L	1	11/17/2025 16:17	247986
Beryllium	NELAP	0.5		**0.6**	µg/L	1	11/17/2025 16:17	247986
Boron	NELAP	20.0		**8230**	µg/L	1	11/17/2025 16:17	247986
Cadmium	NELAP	2.0		**2.0**	µg/L	1	11/17/2025 16:17	247986
Calcium	NELAP	0.100		**287**	mg/L	1	11/17/2025 16:17	247986
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	11/17/2025 16:17	247986
Cobalt	NELAP	5.0		**5.1**	µg/L	1	11/17/2025 16:17	247986
Lead	NELAP	7.5		**< 7.5**	µg/L	1	11/17/2025 16:17	247986
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	11/17/2025 16:17	247986
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 16:53	247986
Arsenic	NELAP	1.0		**12.8**	µg/L	5	11/18/2025 16:53	247986
Lithium	*	3.0		**9.5**	µg/L	5	11/18/2025 16:53	247986
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	11/18/2025 16:53	247986
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	11/18/2025 16:53	247986
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	11/19/2025 11:36	247984
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.0		**5.9**	pci/L	1	01/06/2026 8:26	R377436
Combined 226/228 Uncertainty	*	0		**0.88**	+/-	1	01/06/2026 8:26	R377436
Radium-226	*	1.0		**3.9**	pci/L	1	01/06/2026 8:26	R377436
Radium-226 Uncertainty	*	0		**0.26**	+/-	1	01/06/2026 8:26	R377436
Radium-228	*	1.0		**1.9**	pci/L	1	01/02/2026 13:47	R377439
Radium-228 Uncertainty	*	0		**0.62**	+/-	1	01/02/2026 13:47	R377439

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 25110404
Report Date: 13-Jan-26

Carrier: Justin Colp

Received By: KTM

Completed by: Emily Kossakoski
On: 12-Nov-25
Emily Kossakoski

Reviewed by: Shelly A Hennessy
On: 14-Nov-25
Shelly A. Hennessy

Pages to follow: Chain of custody 3 Extra pages included 62

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	17.5	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.						
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑			
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑			
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐			
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑			

Any No responses must be detailed below or on the COC.

Additonal cooler temperature 4.3C. EK 11/12/2025

pH strip #104524. - KTM/ekossakoski - 11/12/2025 4:54:38 PM

Additional nitric acid (107106) was needed for 1 of 3 RW3 1L and 2 of 3 AP10 1L upon arrival at the laboratory. - KTM/ekossakoski - 11/12/2025 4:58:51 PM

Samples were received on 11/13/25 at 16:30 on ice [temp9.1C, 9.9C, 4.1C, 4.7C, 0.7C - LTG#5]. pH# 104524. Additional nitric acid (107106) was needed for G120 upon arrival at the laboratory. - lhenson - 11/14/2025 7:35:27 AM

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CHAIN OF CUSTODY

Pg 1 of 3 Workorder # 25110404

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 17.5, 6.3 °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY #9
LAB NOTES: PH 10+3.24. Added HNO3 (1:1) to RWS & AP13. KTM 11.12.25 1 of 3 2 of 3

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically
-001/-003 collection times corrected. SAH 11/24/25

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Brett Gillihan

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID		Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED														
					UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity								
25110404-001	RW-3	13:56	11-12-25 ~~1222~~	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
002	AP-1			Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
003	AP-2		11-12-25 1357	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
004	AP-3	13:54	11-12-25 ~~1317~~	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
005	AP-4			Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
006	AP-5			Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
007	AP-6			Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
008	AP-7			Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
009	AP-8			Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
010	AP-9			Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
011	AP10		11-12-25 1432	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	11-12-25 1610	Kyle Wooley	11-12-25 16:10

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 3 Workorder # 25110404

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

9.1, 9.9, 4.1

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 4.7, 0.7 °C 5

Preserved in: [X] LAB [X] FIELD HNO3 FOR LAB USE ONLY

LAB NOTES: PW 104524

added HNO3 (57106) to G120 LH 11/14/25

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No

Are these samples known to be hazardous? [ ] Yes [✓] No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:

*elevations, pH, conductivity, temperature

**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER

Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME

Bret Gillihan

RESULTS REQUESTED

[✓] Standard [ ] 1-2 Day (100% Surcharge)

[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
25110404-001	RW-3		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
002	AP-1	11-13-25 1425	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
003	AP-2		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
004	AP-3		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
005	AP-4	11-13-25 1343	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
006	AP-5	11-13-25 1304	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
007	AP-6	11-13-25 1258	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
008	AP-7	11-13-25 1219	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
009	AP-8	11-13-25 1353	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
010	AP-9	11-13-25 958	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
011	AP10		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Allen Tarpe	11-13-25 1630		11/13/25 1630

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 3 Workorder # 25110404

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD
FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Brett Gillihan

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED													
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity								
25110404-012	AP11	11-13-25 940	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
013	AP12	11-13-25 1104	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
014	AP13	11-13-25 1140	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
015	AP14	11-13-25 1314	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
016	T-01	11-13-25 1221	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
017	T-02	11-13-25 1017	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
018	T-04	11-13-25 1027	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
019	T-05	11-13-25 1101	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
020	T-06	11-13-25 1132	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
021	AW-1	11-13-25 1347	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								
022	G120	11-13-25 1022	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔								

Relinquished By	Date/Time	Received By	Date/Time
Allen Lampe	11-13-25 1630		11/13/25 1630

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Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	RW-3
Project Location:	Springfield, IL	**Sample ID:**	001
W.O. Number (s):	25111404	**Date (s):**	11/12/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 60 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/12/25 1:25 PM

Static Water Level: 13.48 feet below TOC

Total Depth: 44.01 feet below TOC

Water Column: 30.53 feet

Purging Activities

Purged By: JC Purge Date: 11/12/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.53 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 11.00 L

Physical appearance of purge water: Slightly cloudy Odor: Slight Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:09	0.0	234	purge start time						
13:14	1.2	↓	7.10	773.80	14.96	1.12	-151.50	55.45	
13:17	1.9		7.08	776.00	14.95	0.84	-157.90	234.71	
13:20	2.6		7.08	777.30	14.98	0.69	-158.00	281.63	
13:23	3.3		7.08	777.10	15.10	0.61	-157.00	324.88	
13:26	4.0		7.08	777.70	15.26	0.60	-155.80	259.88	
13:29	4.7		7.08	778.50	15.30	0.57	-155.60	266.15	
13:32	5.4		7.08	778.30	15.19	0.54	-154.80	129.46	
13:35	6.1		7.08	778.60	15.19	0.53	-154.60	283.82	
13:38	6.8		7.08	778.80	15.06	0.50	-154.20	217.75	
13:41	7.5		7.08	778.20	15.04	0.48	-153.70	235.75	
13:44	8.2		7.08	778.90	15.02	0.47	-153.20	94.02	
13:47	8.9		7.09	779.20	14.97	0.46	-152.40	164.96	
13:50	9.6		7.09	779.20	14.92	0.45	-152.30	218.71	
13:53	10.3		7.09	779.50	14.90	0.45	-152.00	136.71	
13:56	11.0		7.09	780.10	14.87	0.44	-151.20	134.35	

Sampling Activities

Sampled By: JC Sample Date/Time: 11/12/2025 13:56

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.09 pH 780.10 Spec. Cond. 14.87 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 19.89 feet below TOC Drawdown: 6.41 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp **Date:** 11/12/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25111404
Monitoring Point: AP-1
Sample ID: 002
Date (s): 11/13/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 64 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 2:07 PM
Static Water Level: 11.89 feet below TOC
Total Depth: 31.08 feet below TOC
Water Column: 19.19 feet

Purging Activities

Purged By: DC Purge Date: 11/13/2025
Purge Method: Bladder Pump Well Diameter: 2"
Purge Volume Calculation (L): 19.19 ft. x 0.022 = 0.42 L x 3 Vol. = 1.26 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
14:07	0.0	222	purge start time						
14:13	1.3	↓	5.00	2,031.90	15.99	1.23	28.30	28.52	
14:16	2.0		4.94	2,086.10	16.08	1.08	11.30	30.88	
14:19	2.7		4.91	2,102.40	16.02	1.00	3.60	21.62	
14:22	3.3		4.88	2,129.40	16.01	0.97	-0.20	19.21	
14:25	4.0		4.86	2,144.80	15.87	0.94	-1.80	15.06	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2025 14:25
Sample Method: Low Flow Sample Equipment: Bladder Pump
Sample Parameters: 4.86 pH 2,144.80 Spec. Cond. 15.87 Temp
Field Filtered: No Filter Type:
Water Level: 12.41 feet below TOC Drawdown: 0.52 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan **Date:** 11/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-2
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	25111404	**Date (s):**	11/12/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 60 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/12/25 1:34 PM

Static Water Level: 9.62 feet below TOC

Total Depth: 21.33 feet below TOC

Water Column: 11.71 feet

Purging Activities

Purged By: DC Purge Date: 11/12/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 11.71 ft. x 0.022 = 0.26 L x 3 Vol. = 0.78 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:34	0.0	225	purge start time						
13:42	1.8	↓	4.68	1,733.80	16.61	0.89	61.50	13.17	
13:45	2.5		4.63	1,736.10	16.61	0.79	62.70	11.55	
13:48	3.2		4.60	1,737.90	16.57	0.74	63.70	17.91	
13:51	3.8		4.58	1,739.40	16.54	0.69	64.70	16.91	
13:54	4.5		4.55	1,743.00	16.47	0.68	65.90	19.54	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/12/2025 13:54

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 4.55 pH 1,743.00 Spec. Cond. 16.47 Temp

Field Filtered: No Filter Type:

Water Level: 9.83 feet below TOC Drawdown: 0.21 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan **Date:** 11/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-3
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	25111404	**Date (s):**	11/12/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 60 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/12/25 12:57 PM

Static Water Level: 9.88 feet below TOC

Total Depth: 20.80 feet below TOC

Water Column: 10.92 feet

Purging Activities

Purged By: DC Purge Date: 11/12/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 10.92 ft. x 0.022 = 0.24 L x 3 Vol. = 0.72 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:57	0.0	225	purge start time						
13:02	1.1	↓	5.12	1,730.20	17.22	1.36	30.80	12.88	
13:05	1.8		5.04	1,732.80	17.19	1.23	23.90	11.58	
13:08	2.5		4.99	1,734.00	17.18	1.12	20.10	9.14	
13:11	3.2		4.96	1,738.00	17.16	1.05	17.00	7.83	
13:14	3.8		4.94	1,739.20	17.20	0.99	14.20	7.23	
13:17	4.5		4.93	1,739.90	17.14	0.96	12.40	6.06	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/12//25 13:17

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 4.93 pH 1,739.90 Spec. Cond. 17.14 Temp

Field Filtered: No Filter Type:

Water Level: 10.03 feet below TOC Drawdown: 0.15 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan **Date:** 11/12//25

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25111404
Monitoring Point: AP-4
Sample ID: 005
Date (s): 11/13/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 63 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 1:21 PM
Static Water Level: 12.94 feet below TOC
Total Depth: 60.41 feet below TOC
Water Column: 47.47 feet

Purging Activities

Purged By: JC — Purge Date: 11/13/2025
Purge Method: Bladder Pump — Well Diameter: 2"
Purge Volume Calculation (L): 47.47 ft. x 0.022 = 1.04 L x 3 Vol. = 3.12 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Slightly cloudy — Odor: Slight — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:23	0.0	250	purge start time						
13:28	1.3	↓	6.75	905.60	17.85	1.61	-106.10	52.63	
13:31	2.0		6.75	909.50	17.85	1.06	-115.10	75.35	
13:34	2.8		6.75	911.50	17.83	0.80	-119.60	71.05	
13:37	3.5		6.76	912.60	17.75	0.67	-122.10	64.61	
13:40	4.3		6.76	913.00	17.76	0.58	-123.70	60.51	
13:43	5.0		6.76	913.50	17.78	0.54	-124.70	61.69	

Sampling Activities

Sampled By: JC — Sample Date/Time: 11/13/2025 13:43
Sample Method: Low Flow — Sample Equipment: Bladder Pump
Sample Parameters: 6.76 pH — 913.50 Spec. Cond. — 17.78 Temp
Field Filtered: No — Filter Type:
Water Level: 12.97 feet below TOC — Drawdown: 0.03 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp — **Date:** 11/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25111404
Monitoring Point: AP-5
Sample ID: 006
Date (s): 11/13/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 61 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 12:43 PM
Static Water Level: 20.62 feet below TOC
Total Depth: 31.27 feet below TOC
Water Column: 10.65 feet

Purging Activities

Purged By: JC Purge Date: 11/13/2025
Purge Method: Bladder Pump Well Diameter: 2"
Purge Volume Calculation (L): 10.65 ft. x 0.022 = 0.23 L x 3 Vol. = 0.69 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:45	0.0	263	purge start time						
12:52	1.8	↓	6.84	771.30	14.76	2.40	40.30	3.95	
12:55	2.6		6.83	770.90	14.81	1.93	44.10	3.33	
12:58	3.4		6.83	776.70	14.80	1.73	46.60	3.35	
13:01	4.2		6.83	782.70	14.79	1.66	48.90	2.89	
13:04	5.0		6.83	787.70	14.80	1.55	51.10	1.89	

Sampling Activities

Sampled By: JC Sample Date/Time: 11/13/2025 13:04
Sample Method: Low Flow Sample Equipment: Bladder Pump
Sample Parameters: 6.83 pH 787.70 Spec. Cond. 14.80 Temp
Field Filtered: No Filter Type:
Water Level: 21.42 feet below TOC Drawdown: 0.80 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp **Date:** 11/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-6
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	25111404	**Date (s):**	11/13/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 49 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 12:39 PM

Static Water Level: 11.33 feet below TOC

Total Depth: 39.62 feet below TOC

Water Column: 28.29 feet

Purging Activities

Purged By: AL Purge Date: 11/13/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 28.29 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:39	0.0	158	purge start time						
12:49	1.6	↓	7.12	724.40	15.40	4.40	-6.80	8.81	
12:52	2.1		7.09	730.70	15.95	3.78	-8.00	4.16	
12:55	2.5		7.07	734.80	16.26	3.33	-9.10	3.34	
12:58	3.0		7.06	737.00	16.42	3.01	-10.00	2.58	

Sampling Activities

Sampled By: DN Sample Date/Time: 11/13/2025 12:58

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.06 pH 737.00 Spec. Cond. 16.42 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 12.67 feet below TOC Drawdown: 1.34 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45280

Form Completed By: A Nieters **Date:** 11/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-7
Project Location:	Springfield, IL	**Sample ID:**	008
W.O. Number (s):	25111404	**Date (s):**	11/13/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 58 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/13/25 11:48 AM

Static Water Level: 13.92 feet below TOC

Total Depth: 42.52 feet below TOC

Water Column: 28.60 feet

Purging Activities

Purged By: JC Purge Date: 11/13/2025

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 28.6 ft. x 0.022 = 0.63 L x 3 Vol. = 1.89 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:50	0.0	241	purge start time						
11:55	1.2	↓	6.97	859.30	13.99	0.98	-129.30	22.99	
11:58	1.9		6.97	852.90	13.91	0.68	-122.90	51.63	
12:01	2.7		6.98	854.90	13.86	0.55	-120.00	79.92	
12:04	3.4		6.99	857.60	13.82	0.48	-119.70	86.97	
12:07	4.1		7.00	864.30	13.79	0.43	-119.20	74.99	
12:10	4.8		7.02	875.90	13.76	0.39	-118.10	60.19	
12:13	5.6		7.04	893.80	13.76	0.37	-112.00	54.55	
12:16	6.3		7.05	900.30	13.63	0.36	-108.20	53.70	
12:19	7.0		7.06	903.40	13.56	0.34	-105.90	59.02	

Sampling Activities

Sampled By: JC Sample Date/Time: 11/13/2025 12:19

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.06 pH 903.40 Spec. Cond. 13.56 Temp

Field Filtered: No Filter Type:

Water Level: 23.18 feet below TOC Drawdown: 9.26 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp **Date:** 11/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-8
Project Location:	Springfield, IL	**Sample ID:**	009
W.O. Number (s):	25111404	**Date (s):**	11/13/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 64 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 1:34 PM

Static Water Level: 9.48 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 30.12 feet

Purging Activities

Purged By: DC Purge Date: 11/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.12 ft. x 0.022 = 0.66 L x 3 Vol. = 1.98 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:34	0.0	211	purge start time						
13:41	1.5	↓	6.22	1,172.60	16.22	1.40	12.50	8.46	
13:44	2.1		6.18	1,168.60	16.06	1.12	-6.30	9.36	
13:47	2.7		6.14	1,169.60	16.18	1.03	-13.80	11.59	
13:50	3.4		6.12	1,166.20	16.00	0.91	-17.00	15.11	
13:53	4.0		6.11	1,163.80	15.92	0.86	-18.90	13.07	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2025 13:53

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.11 pH 1,163.80 Spec. Cond. 15.92 Temp

Field Filtered: No Filter Type:

Water Level: 9.88 feet below TOC Drawdown: 0.40 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan **Date:** 11/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25111404
Monitoring Point: AP-9
Sample ID: 010
Date (s): 11/13/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 47 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 9:18 AM
Static Water Level: 14.19 feet below TOC
Total Depth: 39.60 feet below TOC
Water Column: 25.41 feet

Purging Activities

Purged By: JC — Purge Date: 11/13/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 25.41 ft. x 0.022 = 0.56 L x 3 Vol. = 1.68 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.50 L
Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:22	0.0	281	purge start time						
9:26	1.1	↓	6.50	1,103.90	14.43	1.68	-78.40	2.94	
9:29	2.0		6.53	1,069.10	14.53	1.23	-87.80	2.98	
9:32	2.8		6.55	1,066.80	14.40	1.03	-92.00	3.36	
9:35	3.7		6.57	1,065.20	14.48	0.92	-94.50	3.71	
9:38	4.5		6.57	1,065.60	14.42	0.83	-95.30	3.82	

Sampling Activities

Sampled By: JC — Sample Date/Time: 11/13/2025 9:38
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.57 pH — 1,065.60 Spec. Cond. — 14.42 Temp
Field Filtered: No — Filter Type:
Water Level: 17.64 feet below TOC — Drawdown: 3.45 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp — **Date:** 11/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25111404
Monitoring Point: AP-10
Sample ID: 011
Date (s): 11/12/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 61 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/12/25 2:07 PM
Static Water Level: 7.73 feet below TOC
Total Depth: 38.07 feet below TOC
Water Column: 30.34 feet

Purging Activities

Purged By: DC Purge Date: 11/12/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 30.34 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.50 L
Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
14:07	0.0	180	purge start time						
14:19	2.2	↓	5.50	1,474.80	15.20	1.61	-17.30	6.94	
14:22	2.7		5.40	1,474.70	15.23	1.38	-44.30	4.68	
14:25	3.2		5.39	1,475.50	15.23	1.25	-54.80	5.74	
14:28	3.8		5.38	1,474.50	15.10	1.17	-60.90	4.55	
14:31	4.3		5.37	1,468.10	14.87	0.95	-65.70	4.74	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/12/2025 14:32
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 5.37 pH 1,468.10 Spec. Cond. 14.87 Temp
Field Filtered: No Filter Type:
Water Level: 7.74 feet below TOC Drawdown: 0.01 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan **Date:** 11/12/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-11
Project Location:	Springfield, IL	**Sample ID:**	012
W.O. Number (s):	25111404	**Date (s):**	11/13/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 47 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 9:20 AM

Static Water Level: 15.58 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 7.37 feet

Purging Activities

Purged By: DC Purge Date: 11/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.37 ft. x 0.022 = 0.16 L x 3 Vol. = 0.48 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:20	0.0	200	purge start time						
9:28	1.6	↓	5.06	1,269.00	13.56	1.92	61.70	10.29	
9:31	2.2		4.95	1,265.30	13.53	1.63	57.50	9.15	
9:34	2.8		4.89	1,263.20	13.55	1.52	55.60	8.41	
9:37	3.4		4.83	1,264.60	13.66	1.32	54.70	8.29	
9:40	4.0		4.79	1,267.20	13.83	1.21	54.20	8.42	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2025 9:40

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 4.79 pH 1,267.20 Spec. Cond. 13.83 Temp

Field Filtered: No Filter Type:

Water Level: 15.62 feet below TOC Drawdown: 0.04 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan **Date:** 11/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25111404
Monitoring Point: AP-12
Sample ID: 013
Date (s): 11/13/2025

Field Team Members

Name: Brett Gillihan — Affiliation: TekLab, Inc.
Name: Danny Crump — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 54 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 10:44 AM
Static Water Level: 18.24 feet below TOC
Total Depth: 30.40 feet below TOC
Water Column: 12.16 feet

Purging Activities

Purged By: DC — Purge Date: 11/13/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 12.16 ft. x 0.022 = 0.27 L x 3 Vol. = 0.81 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Slightly cloudy — Odor: None — Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:44	0.0	200	purge start time						
10:52	1.6	↓	4.89	1,723.00	13.90	1.37	103.70	15.93	
10:55	2.2		4.82	1,725.80	13.95	1.17	89.50	16.32	
10:58	2.8		4.78	1,729.70	14.04	1.06	79.80	17.31	
11:01	3.4		4.75	1,732.10	14.04	0.99	73.00	17.89	
11:04	4.0		4.74	1,731.90	14.01	0.96	68.00	14.66	

Sampling Activities

Sampled By: BG — Sample Date/Time: 11/13/2025 11:04
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 4.74 pH — 1,731.90 Spec. Cond. — 14.01 Temp
Field Filtered: No — Filter Type:
Water Level: 18.59 feet below TOC — Drawdown: 0.35 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan — **Date:** 11/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-13
Project Location:	Springfield, IL	**Sample ID:**	014
W.O. Number (s):	25111404	**Date (s):**	11/13/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 56 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/13/25 11:21 AM

Static Water Level: 20.04 feet below TOC

Total Depth: 31.00 feet below TOC

Water Column: 10.96 feet

Purging Activities

Purged By: DC Purge Date: 11/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 10.96 ft. x 0.022 = 0.24 L x 3 Vol. = 0.72 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: Slight Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:21	0.0	211	purge start time						
11:28	1.5	↓	5.50	992.10	14.01	1.22	57.80	17.60	
11:31	2.1		5.37	985.70	13.97	1.01	48.90	17.12	
11:34	2.7		5.31	983.90	13.90	0.92	43.80	13.04	
11:37	3.4		5.26	981.80	13.88	0.88	41.20	11.54	
11:40	4.0		5.22	981.60	13.86	0.85	39.30	10.81	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2025 11:40

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 5.32 pH 1,778.80 Spec. Cond. 14.81 Temp

Field Filtered: No Filter Type:

Water Level: 20.23 feet below TOC Drawdown: 0.19 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan **Date:** 11/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-14
Project Location:	Springfield, IL	**Sample ID:**	015
W.O. Number (s):	25111404	**Date (s):**	11/13/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 61 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 12:58 PM

Static Water Level: 4.73 feet below TOC

Total Depth: 31.20 feet below TOC

Water Column: 26.47 feet

Purging Activities

Purged By: DC Purge Date: 11/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 26.47 ft. x 0.022 = 0.58 L x 3 Vol. = 1.74 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:58	0.0	250	purge start time						
13:02	1.0	↓	6.54	2,343.50	15.76	1.48	100.60	7.88	
13:05	1.8		6.32	2,404.80	15.50	1.14	96.50	10.68	
13:08	2.5		6.26	2,426.70	15.55	1.01	91.00	10.78	
13:11	3.3		6.24	2,426.70	15.45	0.92	86.10	6.63	
13:14	4.0		6.24	2,428.40	15.32	0.87	81.70	10.77	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2025 13:14

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.24 pH 2,428.40 Spec. Cond. 15.32 Temp

Field Filtered: No Filter Type:

Water Level: 5.72 feet below TOC Drawdown: 0.99 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan **Date:** 11/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-1
Project Location:	Springfield, IL	**Sample ID:**	016
W.O. Number (s):	25111404	**Date (s):**	11/13/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 59 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 11:59 AM

Static Water Level: 14.88 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 8.07 feet

Purging Activities

Purged By: DC Purge Date: 11/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 8.07 ft. x 0.022 = 0.18 L x 3 Vol. = 0.54 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:59	0.0	182	purge start time						
12:09	1.8	↓	4.55	1,799.20	15.01	1.33	90.40	22.53	
12:12	2.4		4.56	1,808.20	15.04	1.16	92.50	18.66	
12:15	2.9		4.56	1,806.40	14.67	1.09	94.50	19.13	
12:18	3.5		4.55	1,802.50	14.55	1.05	96.30	19.30	
12:21	4.0		4.54	1,805.40	14.61	1.01	98.00	18.23	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2025 12:21

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 4.54 pH 1,805.40 Spec. Cond. 14.61 Temp

Field Filtered: No Filter Type:

Water Level: 15.00 feet below TOC Drawdown: 0.12 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan **Date:** 11/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-2
Project Location:	Springfield, IL	**Sample ID:**	017
W.O. Number (s):	25111404	**Date (s):**	11/13/2025

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 50 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 10:03 AM

Static Water Level: 28.03 feet below TOC

Total Depth: 34.44 feet below TOC

Water Column: 6.41 feet

Purging Activities

Purged By: DC Purge Date: 11/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 6.41 ft. x 0.022 = 0.14 L x 3 Vol. = 0.42 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:03	0.0	286	purge start time						
10:06	0.9	↓	5.04	2,305.20	12.48	1.82	-2.60	10.05	
10:09	1.7		4.88	2,310.90	12.45	1.45	-14.60	6.50	
10:12	2.6		4.88	2,311.30	12.46	1.28	-22.50	5.82	
10:15	3.4		4.88	2,310.50	12.50	1.17	-28.30	5.41	
10:18	4.3		4.89	2,309.10	12.51	1.12	-32.80	5.12	

Sampling Activities

Sampled By: BG Sample Date/Time: 11/13/2025 10:17

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 4.89 pH 2,309.10 Spec. Cond. 12.51 Temp

Field Filtered: No Filter Type:

Water Level: 28.36 feet below TOC Drawdown: 0.33 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223358

Form Completed By: Brett Gillihan **Date:** 11/13/2025

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-4
Project Location:	Springfield, IL	**Sample ID:**	018
W.O. Number (s):	25111404	**Date (s):**	11/13/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 51 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 11/13/25 9:54 AM

Static Water Level: 20.08 feet below TOC

Total Depth: 27.42 feet below TOC

Water Column: 7.34 feet

Purging Activities

Purged By: JC Purge Date: 11/13/2025

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.34 ft. x 0.022 = 0.16 L x 3 Vol. = 0.48 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:56	0.0	226	purge start time						
10:03	1.6	↓	6.80	974.50	13.53	0.89	-52.80	76.61	
10:06	2.3		6.72	788.60	13.54	0.92	-40.60	77.88	
10:09	2.9		6.64	643.10	13.61	0.92	-16.00	55.17	
10:12	3.6		6.41	549.70	13.63	1.56	16.90	23.06	
10:15	4.3		6.35	534.90	13.70	1.53	25.70	12.29	
10:18	5.0		6.36	537.20	13.70	1.37	23.10	8.95	
10:21	5.6		6.39	544.00	13.71	1.17	16.10	5.85	
10:24	6.3		6.41	546.60	13.71	1.05	9.80	6.95	
10:27	7.0		6.43	544.70	13.79	0.95	4.80	3.56	

Sampling Activities

Sampled By: JC Sample Date/Time: 11/13/2025 10:27

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.43 pH 544.70 Spec. Cond. 13.79 Temp

Field Filtered: No Filter Type:

Water Level: 21.34 feet below TOC Drawdown: 1.26 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp **Date:** 11/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25111404
Monitoring Point: T-5
Sample ID: 019
Date (s): 11/13/2025

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.
Name: Affiliation:

Weather Conditions

Temp: 54 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 10:43 AM
Static Water Level: 13.99 feet below TOC
Total Depth: 22.34 feet below TOC
Water Column: 8.35 feet

Purging Activities

Purged By: JC Purge Date: 11/13/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 8.35 ft. x 0.022 = 0.18 L x 3 Vol. = 0.54 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:45	0.0	250	purge start time						
10:52	1.7	↓	6.61	693.90	16.13	1.64	26.50	5.52	
10:55	2.5		6.62	693.50	16.43	1.44	40.20	5.55	
10:58	3.3		6.63	707.50	16.55	1.46	47.70	6.87	
11:01	4.0		6.64	726.40	16.76	1.36	48.10	6.04	

Sampling Activities

Sampled By: JC Sample Date/Time: 11/13/2025 11:01
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.64 pH 726.40 Spec. Cond. 16.76 Temp
Field Filtered: No Filter Type:
Water Level: 15.53 feet below TOC Drawdown: 1.54 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp **Date:** 11/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25111404
Monitoring Point: T-6
Sample ID: 020
Date (s): 11/13/2025

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 56 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 11:17 AM

Static Water Level: 11.98 feet below TOC
Total Depth: 43.62 feet below TOC
Water Column: 31.64 feet

Purging Activities

Purged By: JC — Purge Date: 11/13/2025
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 31.64 ft. x 0.022 = 0.7 L x 3 Vol. = 2.1 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.50 L
Physical appearance of purge water: Slightly cloudy — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:19	0.0	269	purge start time						
11:23	1.1	↓	6.72	944.50	14.91	1.17	-133.30	15.17	
11:26	1.9		6.74	942.00	14.62	0.91	-136.30	26.27	
11:29	2.7		6.75	940.40	14.42	0.82	-136.60	31.41	
11:32	3.5		6.76	939.70	14.36	0.78	-136.70	35.26	

Sampling Activities

Sampled By: JC — Sample Date/Time: 11/13/2025 11:32
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.76 pH — 939.70 Spec. Cond. — 14.36 Temp
Field Filtered: No — Filter Type:
Water Level: 12.03 feet below TOC — Drawdown: 0.05 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp — **Date:** 11/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25111404
Monitoring Point: AW-1
Sample ID: 021
Date (s): 11/13/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 65 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 1:29 PM
Static Water Level: 19.26 feet below TOC
Total Depth: 54.81 feet below TOC
Water Column: 35.55 feet

Purging Activities

Purged By: AL Purge Date: 11/13/2025
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 35.55 ft. x 0.022 = 0.78 L x 3 Vol. = 2.34 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Slightly cloudy Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:29	0.0	333	purge start time						
13:38	3.0	↓	6.66	1,370.30	15.00	3.88	11.80	20.63	
13:41	4.0		6.64	1,369.10	14.91	3.46	12.00	17.55	
13:44	5.0		6.63	1,367.00	14.87	3.14	11.40	12.33	
13:47	6.0		6.62	1,363.50	14.83	2.89	10.60	9.76	

Sampling Activities

Sampled By: Dn Sample Date/Time: 11/13/2025 13:47
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.62 pH 1,363.50 Spec. Cond. 14.83 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 22.13 feet below TOC Drawdown: 2.87 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45280

Form Completed By: A Nieters **Date:** 11/13/2025

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 25111404
Monitoring Point: G120
Sample ID: 022
Date (s): 11/13/2025

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 49 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 11/13/25 10:04 AM
Static Water Level: 20.72 feet below TOC
Total Depth: 50.37 feet below TOC
Water Column: 29.65 feet

Purging Activities

Purged By: Al Purge Date: 11/13/2025
Purge Method: Submersible Pump Well Diameter: 2"
Purge Volume Calculation (L): 29.65 ft. x 0.022 = 0.65 L x 3 Vol. = 1.95 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 6.00 L
Physical appearance of purge water: Cloudy Odor: Moderate Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:04	0.0	333	purge start time						
10:13	3.0	↓	6.68	1,759.90	15.18	3.75	34.50	31.85	
10:16	4.0		6.67	1,753.40	15.21	3.29	30.90	42.73	
10:19	5.0		6.67	1,749.00	15.17	2.96	27.90	43.19	
10:22	6.0		6.67	1,748.40	15.51	2.70	25.10	38.98	

Sampling Activities

Sampled By: DN Sample Date/Time: 11/13/2025 10:22
Sample Method: Low Flow Sample Equipment: Submersible Pump
Sample Parameters: 6.67 pH 1,748.40 Spec. Cond. 15.51 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 20.81 feet below TOC Drawdown: 0.09 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 45280

Form Completed By: A Nieters Date: 11/13/2025

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 25110404
Technician(s): DC, JC, BG, AL, DN

Field Calibration Log(s)
CWLP- 4Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 217941 Technician(s): justin colp Date: 11/12/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC251017A	4.00	11/12/25 11:40
7.0 Buffer	WC251017B	7.00	11/12/25 11:37
10.0 Buffer	WC251017C	10.00	11/12/25 11:44
LCS/CCV (7.0 Buffer)	WC251017D		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	107107	1412	11/12/25 11:50

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.85	11/12/25 11:52
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	11/12/25 11:55	15.3	7.01	1,409	0.83		
CCV-1-JC	CCV	11/12/25 14:17	19.1	6.98	1,377	0.96		

Comments:

Field Meter ID: Pine 217941 Technician(s): justin colp Date: 11/13/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC251017A	4.00	11/13/25 8:37
7.0 Buffer	WC251017B	7.00	11/13/25 8:33
10.0 Buffer	WC251017C	10.00	11/13/25 8:40
LCS/CCV (7.0 Buffer)	WC251017D		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	107107	1412	11/13/25 8:46

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.93	11/13/25 8:47
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	11/13/25 8:52	12	6.97	1,409	0.87		
CCV-2-JC	CCV	11/13/25 14:47	18.6	7.02	1,364	1.61		

Comments:

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 25110404
Technician(s): DC, JC, BG, AL, DN

Field Calibration Log(s)
CWLP- 4Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 45280 Technician(s): D. Nieters Date: 11/12/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC251017A	4.00	11/12/25 10:56
7.0 Buffer	WC251017B	7.00	11/12/25 10:50
10.0 Buffer	WC251017C	10.00	11/12/25 11:05
LCS/CCV (7.0 Buffer)	WC251017D		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	107107	1418	11/12/25 11:09

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.64	11/12/25 11:16
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-DN	LCS	11/12/25 11:17	18.9	7.05	1,418	0.64		
CCV-1-DN	CCV	11/12/25 14:00	18.9	6.96	1,358	0.73		

Comments:

Field Meter ID: Pine 45280 Technician(s): D. Nieters Date: 11/13/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC251017A	4.00	11/13/25 7:50
7.0 Buffer	WC251017B	7.00	11/13/25 7:46
10.0 Buffer	WC251017C	10.00	11/13/25 8:01
LCS/CCV (7.0 Buffer)	WC251017D		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	107107	1390	11/13/25 8:11

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.82	11/13/25 8:24
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-DN	LCS	11/13/25 8:29	10.8	7.02	1,412	1.01		
CCV-2-DN	CCV	11/13/25 14:15	19.6	6.98	1,356	0.89		

Comments:

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 25110404
Technician(s): DC, JC, BG, AL, DN

Field Calibration Log(s)
CWLP- 4Q 2025

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223358 Technician(s): Brett Gillihan Date: 11/12/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC251017A	4.01	11/12/25 10:50
7.0 Buffer	WC251017B	6.98	11/12/25 10:47
10.0 Buffer	WC251017C	10.00	11/12/25 10:56
LCS/CCV (7.0 Buffer)	WC251017D		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	107107	1425	11/12/25 11:03

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.35	11/12/25 11:04
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	11/12/25 11:08	13.3	7.01	1,443	0.39		
CCV-1-BG	CCV	11/12/25 14:34	13.8	7.03	1,448	0.46		

Comments:

Field Meter ID: Pine 223358 Technician(s): Brett Gillihan Date: 11/13/2025

pH Standards	LIMS ID	Calibration reading	Date/Time
4.0 Buffer	WC251017A	4.02	11/13/25 8:39
7.0 Buffer	WC251017B	7.00	11/13/25 8:35
10.0 Buffer	WC251017C	10.01	11/13/25 8:46
LCS/CCV (7.0 Buffer)	WC251017D		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	107107	1427	11/13/25 8:50

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.48	11/13/25 8:53
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	11/13/25 8:58	14.3	7.03	1,439	0.52		
CCV-2-BG	CCV	11/13/25 14:46	16.3	7.02	1,451	0.53		

Comments:

Alliance Technical Group - Akron
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January 08, 2026

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 25110404

Dear Shelly Hennessy:

Order No.: 25111579

Alliance Technical Group - Akron received 22 sample(s) on 11/19/2025 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0828, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **25111579**
Date: **1/8/2026**

CLIENT: TEKLAB Inc,
Project: 25110404

WorkOrder Narrative:
25111579: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence Sample Notes:
25111579-009A Radium-228_NPW(904.0): Parent sample and duplicate exhibit a high RPD, most likely caused by sample matrix.
25111579-010A Radium-226_NPW(903.0): Parent sample and dup exhibit high RPD, both results are below the PQL.

Analytical Sequence QC Notes:
LCS/LCSD-90886 Radium-228_DW(904.0): LCS and LCSD exhibited high RPD. Both are within passing recovery criteria.

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Qualifiers and Acronyms

WO#: **25111579**
Date: **1/8/2026**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **25111579**

08-Jan-26

CLIENT: TEKLAB Inc,
Project: 25110404

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
25111579-001	25110404-001C		11/12/2025 12:22:01 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-002	25110404-002C		11/13/2025 2:25:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-003	25110404-003C		11/12/2025 1:57:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-004	25110404-004C		11/12/2025 1:17:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-005	25110404-005C		11/13/2025 1:43:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-006	25110404-006C		11/13/2025 1:04:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-007	25110404-007C		11/13/2025 12:58:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-008	25110404-008C		11/13/2025 12:19:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-009	25110404-009C		11/13/2025 1:53:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-010	25110404-010C		11/13/2025 9:38:00 AM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-011	25110404-011C		11/12/2025 2:32:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-012	25110404-012C		11/13/2025 9:40:00 AM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-013	25110404-013C		11/13/2025 11:04:00 AM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-014	25110404-014C		11/13/2025 11:40:00 AM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-015	25110404-015C		11/13/2025 1:14:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-016	25110404-016C		11/13/2025 12:21:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-017	25110404-017C		11/13/2025 10:17:00 AM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-018	25110404-018C		11/13/2025 10:27:00 AM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-019	25110404-019C		11/13/2025 11:01:00 AM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-020	25110404-020C		11/13/2025 11:32:00 AM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-021	25110404-021C		11/13/2025 1:47:00 PM	11/19/2025 11:20:00 AM	Non-Potable Water
25111579-022	25110404-022C		11/13/2025 10:22:00 AM	11/19/2025 11:20:00 AM	Non-Potable Water

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DATES REPORT

WO#: **25111579**

08-Jan-26

Client: TEKLAB Inc,
Project: 25110404

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
25111579-001A	25110404-001C	11/12/2025 12:22:01 PM	Non-Potable Water	Combined Radium (EPA903+904)		12/19/2025 11:10:00 AM	12/19/2025 11:15:12 AM
				Radium-226 (EPA 903.0)		12/19/2025 11:10:00 AM	12/19/2025 11:15:36 AM
				Radium-228 (EPA 9320)		12/19/2025 11:10:00 AM	1/2/2026 11:20:00 AM
25111579-002A	25110404-002C	11/13/2025 2:25:00 PM		Combined Radium (EPA903+904)		12/19/2025 11:10:00 AM	12/19/2025 11:15:12 AM
				Radium-226 (EPA 903.0)		12/19/2025 11:10:00 AM	12/19/2025 11:15:36 AM
				Radium-228 (EPA 904.0)		12/19/2025 11:10:00 AM	1/2/2026 11:20:00 AM
25111579-003A	25110404-003C	11/12/2025 1:57:00 PM		Combined Radium (EPA903+904)		12/19/2025 11:10:00 AM	12/19/2025 11:15:12 AM
				Radium-226 (EPA 903.0)		12/19/2025 11:10:00 AM	12/19/2025 11:15:36 AM
				Radium-228 (EPA 904.0)		12/19/2025 11:10:00 AM	1/2/2026 11:20:00 AM
25111579-004A	25110404-004C	11/12/2025 1:17:00 PM		Combined Radium (EPA903+904)		12/19/2025 11:10:00 AM	12/19/2025 11:15:12 AM
				Radium-226 (EPA 903.0)		12/19/2025 11:10:00 AM	12/19/2025 11:15:36 AM
				Radium-228 (EPA 904.0)		12/19/2025 11:10:00 AM	1/2/2026 11:20:00 AM
25111579-005A	25110404-005C	11/13/2025 1:43:00 PM		Combined Radium (EPA903+904)		12/19/2025 11:10:00 AM	12/19/2025 11:15:12 AM
				Radium-226 (EPA 903.0)		12/19/2025 11:10:00 AM	12/19/2025 11:15:36 AM
				Radium-228 (EPA 904.0)		12/19/2025 11:10:00 AM	1/2/2026 11:20:00 AM
25111579-006A	25110404-006C	11/13/2025 1:04:00 PM		Combined Radium (EPA903+904)		12/19/2025 11:10:00 AM	12/19/2025 11:15:12 AM
				Radium-226 (EPA 903.0)		12/19/2025 11:10:00 AM	12/19/2025 11:15:36 AM
				Radium-228 (EPA 904.0)		12/19/2025 11:10:00 AM	1/2/2026 11:20:00 AM
25111579-007A	25110404-007C	11/13/2025 12:58:00 PM		Combined Radium (EPA903+904)		12/19/2025 11:10:00 AM	12/19/2025 11:15:12 AM
				Radium-226 (EPA 903.0)		12/19/2025 11:10:00 AM	12/19/2025 11:15:36 AM
				Radium-228 (EPA 904.0)		12/19/2025 11:10:00 AM	1/2/2026 11:20:00 AM
25111579-008A	25110404-008C	11/13/2025 12:19:00 PM		Combined Radium (EPA903+904)		12/19/2025 11:10:00 AM	12/19/2025 11:15:12 AM
				Radium-226 (EPA 903.0)		12/19/2025 11:10:00 AM	12/19/2025 11:15:36 AM

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Alliance Technical Group - Akron
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Website: http://www.settek.com

DATES REPORT

WO#: **25111579**

08-Jan-26

Client: TEKLAB Inc,
Project: 25110404

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
25111579-008A	25110404-008C	11/13/2025 12:19:00 PM	Non-Potable Water	Radium-228 (EPA 904.0)		12/19/2025 11:10:00 AM	1/2/2026 11:20:00 AM
25111579-009A	25110404-009C	11/13/2025 1:53:00 PM		Combined Radium (EPA903+904)		12/19/2025 11:10:00 AM	12/19/2025 11:15:12 AM
				Radium-226 (EPA 903.0)		12/19/2025 11:10:00 AM	12/19/2025 11:15:36 AM
				Radium-228 (EPA 904.0)		12/19/2025 11:10:00 AM	1/2/2026 11:20:00 AM
25111579-010A	25110404-010C	11/13/2025 9:38:00 AM		Combined Radium (EPA903+904)		12/19/2025 11:10:00 AM	12/19/2025 11:15:12 AM
				Radium-226 (EPA 903.0)		12/19/2025 11:10:00 AM	12/19/2025 11:15:36 AM
				Radium-228 (EPA 904.0)		12/19/2025 11:10:00 AM	1/2/2026 11:20:00 AM
25111579-011A	25110404-011C	11/12/2025 2:32:00 PM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-012A	25110404-012C	11/13/2025 9:40:00 AM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-013A	25110404-013C	11/13/2025 11:04:00 AM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-014A	25110404-014C	11/13/2025 11:40:00 AM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-015A	25110404-015C	11/13/2025 1:14:00 PM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-016A	25110404-016C	11/13/2025 12:21:00 PM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM

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DATES REPORT

WO#: **25111579**

08-Jan-26

Client: TEKLAB Inc,
Project: 25110404

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
25111579-016A	25110404-016C	11/13/2025 12:21:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-017A	25110404-017C	11/13/2025 10:17:00 AM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-018A	25110404-018C	11/13/2025 10:27:00 AM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-019A	25110404-019C	11/13/2025 11:01:00 AM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-020A	25110404-020C	11/13/2025 11:32:00 AM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-021A	25110404-021C	11/13/2025 1:47:00 PM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM
25111579-022A	25110404-022C	11/13/2025 10:22:00 AM		Combined Radium (EPA903+904)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-226 (EPA 903.0)		12/22/2025 8:14:08 AM	1/6/2026 8:26:00 AM
				Radium-228 (EPA 904.0)		12/22/2025 8:14:08 AM	1/2/2026 1:47:00 PM

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/12/2025 12:22:01 PM
Project: 25110404
Lab ID: 25111579-001
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-001C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.380	1	12/19/2025 11:15:12 A
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	12/19/2025 11:15:36 A
Yield	0.940					1	12/19/2025 11:15:36 A
RADIUM-228 (EPA 9320)					**SW9320**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.300	1	1/2/2026 11:20:00 AM
Yield	1.00					1	1/2/2026 11:20:00 AM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

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WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 2:25:00 PM
Project: 25110404
Lab ID: 25111579-002
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-002C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.440	1	12/19/2025 11:15:12 A
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.100	1	12/19/2025 11:15:36 A
Yield	0.780					1	12/19/2025 11:15:36 A
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.340	1	1/2/2026 11:20:00 AM
Yield	0.830					1	1/2/2026 11:20:00 AM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

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WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/12/2025 1:57:00 PM
Project: 25110404
Lab ID: 25111579-003
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-003C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.380	1	12/19/2025 11:15:12 A
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	12/19/2025 11:15:36 A
Yield	0.870					1	12/19/2025 11:15:36 A
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.300	1	1/2/2026 11:20:00 AM
Yield	0.930					1	1/2/2026 11:20:00 AM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/12/2025 1:17:00 PM
Project: 25110404
Lab ID: 25111579-004
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-004C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.400	1	12/19/2025 11:15:12 A
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	12/19/2025 11:15:36 A
Yield	0.950					1	12/19/2025 11:15:36 A
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.330	1	1/2/2026 11:20:00 AM
Yield	0.960					1	1/2/2026 11:20:00 AM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

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WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 1:43:00 PM
Project: 25110404
Lab ID: 25111579-005
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-005C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.470	1	12/19/2025 11:15:12 A
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.130	1	12/19/2025 11:15:36 A
Yield	0.990					1	12/19/2025 11:15:36 A
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.340	1	1/2/2026 11:20:00 AM
Yield	1.00					1	1/2/2026 11:20:00 AM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 1:04:00 PM
Project: 25110404
Lab ID: 25111579-006
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-006C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.370	1	12/19/2025 11:15:12 A
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0400	1	12/19/2025 11:15:36 A
Yield	0.930					1	12/19/2025 11:15:36 A
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.330	1	1/2/2026 11:20:00 AM
Yield	1.00					1	1/2/2026 11:20:00 AM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 12:58:00 PM
Project: 25110404
Lab ID: 25111579-007
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-007C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.410	1	12/19/2025 11:15:12 A
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	12/19/2025 11:15:36 A
Yield	0.970					1	12/19/2025 11:15:36 A
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.340	1	1/2/2026 11:20:00 AM
Yield	0.960					1	1/2/2026 11:20:00 AM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 12:19:00 PM
Project: 25110404
Lab ID: 25111579-008
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-008C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.410	1	12/19/2025 11:15:12 A
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	12/19/2025 11:15:36 A
Yield	0.940					1	12/19/2025 11:15:36 A
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.340	1	1/2/2026 11:20:00 AM
Yield	1.00					1	1/2/2026 11:20:00 AM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 1:53:00 PM
Project: 25110404
Lab ID: 25111579-009
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-009C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.590	1	12/19/2025 11:15:12 A
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	1.37	1.00		pCi/L	± 0.160	1	12/19/2025 11:15:36 A
Yield	0.990					1	12/19/2025 11:15:36 A
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00	QDR	pCi/L	± 0.430	1	1/2/2026 11:20:00 AM
Yield	1.00					1	1/2/2026 11:20:00 AM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 9:38:00 AM
Project: 25110404
Lab ID: 25111579-010
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-010C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.420	1	12/19/2025 11:15:12 A
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00	QDR	pCi/L	± 0.110	1	12/19/2025 11:15:36 A
Yield	0.960					1	12/19/2025 11:15:36 A
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.310	1	1/2/2026 11:20:00 AM
Yield	1.00					1	1/2/2026 11:20:00 AM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/12/2025 2:32:00 PM
Project: 25110404
Lab ID: 25111579-011
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-011C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.550	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	1.01	1.00		pCi/L	± 0.140	1	1/6/2026 8:26:00 AM
Yield	1.00					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.410	1	1/2/2026 1:47:00 PM
Yield	1.00					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 9:40:00 AM
Project: 25110404
Lab ID: 25111579-012
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-012C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.340	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0500	1	1/6/2026 8:26:00 AM
Yield	1.00					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.290	1	1/2/2026 1:47:00 PM
Yield	1.00					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 11:04:00 AM
Project: 25110404
Lab ID: 25111579-013
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-013C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.380	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0500	1	1/6/2026 8:26:00 AM
Yield	0.980					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.330	1	1/2/2026 1:47:00 PM
Yield	1.00					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 11:40:00 AM
Project: 25110404
Lab ID: 25111579-014
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-014C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.400	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.100	1	1/6/2026 8:26:00 AM
Yield	0.930					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.300	1	1/2/2026 1:47:00 PM
Yield	1.00					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 1:14:00 PM
Project: 25110404
Lab ID: 25111579-015
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-015C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.630	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0900	1	1/6/2026 8:26:00 AM
Yield	0.990					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	1.46	1.00		pCi/L	± 0.540	1	1/2/2026 1:47:00 PM
Yield	1.00					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 12:21:00 PM
Project: 25110404
Lab ID: 25111579-016
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-016C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.410	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0500	1	1/6/2026 8:26:00 AM
Yield	1.00					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.360	1	1/2/2026 1:47:00 PM
Yield	1.00					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 10:17:00 AM
Project: 25110404
Lab ID: 25111579-017
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-017C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.560	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.110	1	1/6/2026 8:26:00 AM
Yield	0.950					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.450	1	1/2/2026 1:47:00 PM
Yield	0.990					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 10:27:00 AM
Project: 25110404
Lab ID: 25111579-018
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-018C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.480	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	1/6/2026 8:26:00 AM
Yield	1.00					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.410	1	1/2/2026 1:47:00 PM
Yield	1.00					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 11:01:00 AM
Project: 25110404
Lab ID: 25111579-019
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-019C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.460	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	1/6/2026 8:26:00 AM
Yield	1.00					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.380	1	1/2/2026 1:47:00 PM
Yield	0.990					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

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WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 11:32:00 AM
Project: 25110404
Lab ID: 25111579-020
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-020C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.510	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.130	1	1/6/2026 8:26:00 AM
Yield	0.890					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.380	1	1/2/2026 1:47:00 PM
Yield	0.990					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 1:47:00 PM
Project: 25110404
Lab ID: 25111579-021
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-021C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.450	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0900	1	1/6/2026 8:26:00 AM
Yield	1.00					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.360	1	1/2/2026 1:47:00 PM
Yield	1.00					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **25111579**

Date Reported: **1/8/2026**

CLIENT: TEKLAB Inc,
Collection Date: 11/13/2025 10:22:00 AM
Project: 25110404
Lab ID: 25111579-022
Matrix: NON-POTABLE WATER
Client Sample ID: 25110404-022C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	5.88	2.00		pCi/L	± 0.880	1	1/6/2026 8:26:00 AM
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	3.94	1.00		pCi/L	± 0.260	1	1/6/2026 8:26:00 AM
Yield	1.00					1	1/6/2026 8:26:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	1.94	1.00		pCi/L	± 0.620	1	1/2/2026 1:47:00 PM
Yield	0.970					1	1/2/2026 1:47:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **25111579**

08-Jan-26

Client: TEKLAB Inc,
Project: 25110404 **BatchID:** **90856**

Sample ID: **25111579-009ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **12/19/2025** RunNo: **224241**
Client ID: **25110404-009C** Batch ID: **90856** TestNo: **E904.0** **E903-904** Analysis Date: **1/2/2026** SeqNo: **5977079**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.25	1.00		0	0			0.8400	39.2	30	R
Yield	1.00			0	0			1.000	0		

Sample ID: **25111579-010ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **12/19/2025** RunNo: **224241**
Client ID: **25110404-010C** Batch ID: **90856** TestNo: **E904.0** **E903-904** Analysis Date: **1/2/2026** SeqNo: **5977081**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	
Yield	0.930			0	0			1.000	7.25		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Alliance Technical Group - Akron
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Cuyahoga Falls, Ohio 44223
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QC SUMMARY REPORT

WO#: **25111579**

08-Jan-26

Client: TEKLAB Inc,
Project: 25110404 **BatchID:** **90856**

Sample ID: **MB-90856** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **12/19/2025** RunNo: **224241**
Client ID: **BatchQC** Batch ID: **90856** TestNo: **SW9320** **E903-904** Analysis Date: **1/2/2026** SeqNo: **5977054**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.970			0	0						

Sample ID: **LCS-90856** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **12/19/2025** RunNo: **224241**
Client ID: **BatchQC** Batch ID: **90856** TestNo: **SW9320** **E903-904** Analysis Date: **1/2/2026** SeqNo: **5977055**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.74	1.00	5.000	0	74.8	50	130				
Yield	0.920			0	0						

Sample ID: **LCSD-90856** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **12/19/2025** RunNo: **224241**
Client ID: **BatchQC** Batch ID: **90856** TestNo: **SW9320** **E903-904** Analysis Date: **1/2/2026** SeqNo: **5977056**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.41	1.00	5.000	0	68.2	50	130	3.740	9.23	20	
Yield	0.960			0	0			0.9200	4.26		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **25111579**

08-Jan-26

Client: TEKLAB Inc,
Project: 25110404 **BatchID:** **90856**

Sample ID: **MB-90856**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **12/19/2025**	RunNo: **224246**
Client ID: **BatchQC**	Batch ID: **90856**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/19/2025**	SeqNo: **5977140**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.940										

Sample ID: **LCS-90856**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **12/19/2025**	RunNo: **224246**
Client ID: **BatchQC**	Batch ID: **90856**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/19/2025**	SeqNo: **5977141**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.99	1.00	5.000	0	120	70	130				

Sample ID: **LCSD-90856**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **12/19/2025**	RunNo: **224246**
Client ID: **BatchQC**	Batch ID: **90856**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/19/2025**	SeqNo: **5977142**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.17	1.00	5.000	0	123	70	130	5.990	2.96	20	

Sample ID: **25111579-009ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **12/19/2025**	RunNo: **224246**
Client ID: **25110404-009C**	Batch ID: **90856**	TestNo: **E903.0**	**E903-904**	Analysis Date: **12/19/2025**	SeqNo: **5977164**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **25111579**

08-Jan-26

Client: TEKLAB Inc,
Project: 25110404 **BatchID:** **90856**

Sample ID: **25111579-009ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **12/19/2025** RunNo: **224246**
Client ID: **25110404-009C** Batch ID: **90856** TestNo: **E903.0** **E903-904** Analysis Date: **12/19/2025** SeqNo: **5977164**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.48	1.00						1.370	7.72	30	
Yield	0.900							0.9900	9.52	0	

Sample ID: **25111579-010ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **12/19/2025** RunNo: **224246**
Client ID: **25110404-010C** Batch ID: **90856** TestNo: **E903.0** **E903-904** Analysis Date: **12/19/2025** SeqNo: **5977166**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	R
Yield	0.850							0.9600	12.2	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **25111579**

08-Jan-26

Client: TEKLAB Inc,
Project: 25110404 **BatchID:** **90886**

Sample ID: **MB-90886**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **12/22/2025**	RunNo: **224319**
Client ID: **BatchQC**	Batch ID: **90886**	TestNo: **E903.0**	**E903-904**	Analysis Date: **1/6/2026**	SeqNo: **5979841**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-90886**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **12/22/2025**	RunNo: **224319**
Client ID: **BatchQC**	Batch ID: **90886**	TestNo: **E903.0**	**E903-904**	Analysis Date: **1/6/2026**	SeqNo: **5979842**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.13	1.00	5.000	0	103	70	130				

Sample ID: **LCSD-90886**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **12/22/2025**	RunNo: **224319**
Client ID: **BatchQC**	Batch ID: **90886**	TestNo: **E903.0**	**E903-904**	Analysis Date: **1/6/2026**	SeqNo: **5979843**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.24	1.00	5.000	0	105	70	130	5.130	2.12	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

TEKLAB, INC. Chain of Custody

25111579

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Teklab Employee | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Analyze for Radium 226/228 per your normal method/s.
Method changes require Teklab authorization. Samples collected from an IL site.
Batch QC is required for all analyses requested.

Project# 25110404

Contact: Shelly Hennessy | Email: shennessy@teklabinc.com
Requested Due Date: Standard TAT | Billing/PO: 39856 | Phone: 618-344-1004 ex 36 | State of Sample Origin = IL

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228	Radium 226	Radium 228	pH			cpm					
	25110404-001C	11/12/25 12:22	HNO3	Groundwater	✔	✔	✔	3	2	2	21	30	22			
	25110404-002C	11/13/25 14:25	HNO3	Groundwater	✔	✔	✔	2	3	2	22	20	26			
	25110404-003C	11/12/25 13:57	HNO3	Groundwater	✔	✔	✔	3	3	3	22	32	22			
	25110404-004C	11/12/25 13:17	HNO3	Groundwater	✔	✔	✔	2	2	2	26	24	26			
	25110404-005C	11/13/25 13:43	HNO3	Groundwater	✔	✔	✔	3	3	3	24	26	28			
	25110404-006C	11/13/25 13:04	HNO3	Groundwater	✔	✔	✔	2	2	3	30	36	24			
	25110404-007C	11/13/25 12:58	HNO3	Groundwater	✔	✔	✔	2	2	3	32	30	30			
	25110404-008C	11/13/25 12:19	HNO3	Groundwater	✔	✔	✔	3	2	3	30	30	30			
	25110404-009C	11/13/25 13:53	HNO3	Groundwater	✔	✔	✔	3	3	3	22	24	28			
	25110404-010C	11/13/25 9:38	HNO3	Groundwater	✔	✔	✔	3	3	3	16	22	30			
	25110404-011C	11/12/25 14:32	HNO3	Groundwater	✔	✔	✔	2	3	1	26	18	26			

*Relinquished By	Date/Time	Received By	Date/Time
	11/19/25 1700		~~11/20/25~~
		Lucux 1120	11/19/25
		18.8+0.2=19.0	

C.S. 11/17/25 intact

19.0°C = 18.8 + 0.2

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights. Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevA 3/2/2016

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: | Sampler: Teklab Employee | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Analyze for Radium 226/228 per your normal method/s.
Method changes require Teklab authorization. Samples collected from an IL site.
Batch QC is required for all analyses requested.

Project# 25110404

Contact: Shelly Hennessy | Email: shennessy@teklabinc.com
Requested Due Date: Standard TAT | Billing/PO: 39856
Phone: 618-344-1004 ex 36 State of Sample Origin = IL

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228	Radium 226	Radium 228	PH			UPW					
	25110404-012C	11/13/25 9:40	HNO3	Groundwater	✔	✔	✔	3	3	3	22	30	28			
	25110404-013C	11/13/25 11:04	HNO3	Groundwater	✔	✔	✔	2	3	3	24	28	24			
	25110404-014C	11/13/25 11:40	HNO3	Groundwater	✔	✔	✔	2	3	3	26	34	26			
	25110404-015C	11/13/25 13:14	HNO3	Groundwater	✔	✔	✔	2	3	3	28	22	18			
	25110404-016C	11/13/25 12:21	HNO3	Groundwater	✔	✔	✔	2	2	3	36	26	38			
	25110404-017C	11/13/25 10:17	HNO3	Groundwater	✔	✔	✔	2	3	3	22	28	32			
	25110404-018C	11/13/25 10:27	HNO3	Groundwater	✔	✔	✔	1	1	1	22	30	46			
	25110404-019C	11/13/25 11:01	HNO3	Groundwater	✔	✔	✔	2	3	2	24	30	28			
	25110404-020C	11/13/25 11:32	HNO3	Groundwater	✔	✔	✔	3	3	3	28	32	34			
	25110404-021C	11/13/25 13:47	HNO3	Groundwater	✔	✔	✔	3	3	3	22	14	26			
	25110404-022C	11/13/25 10:22	HNO3	Groundwater	✔	✔	✔	2	2	3	26	20	34			

*Relinquished By	Date/Time	Received By	Date/Time
	11/17/25 1700	Paige Aguirre	~~11/20/25~~ PA 12:00
			11/19/25

CS intact
11/17/25
19.0 C =
18.8 +0.2

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **25111579** RcptNo: **1**

Logged by:	**Spencer M. Hartwell**	**11/19/2025 11:20:00 AM**	Spencer M. Hartwell
Completed By:	**Spencer M. Hartwell**	**11/20/2025 3:53:59 PM**	Spencer M. Hartwell
Reviewed By:	**Jennifer Woolf**	**11/25/2025 9:29:17 PM**	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐ NA ☐
   No. Seal Date: 11/17/2025 Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	19	Good	Yes		11/17/2025	

March 27, 2026

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100467
Kansas	E-10374
Kansas	E-10438
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 26020092

Dear Eric Staley:

TEKLAB, INC received 22 samples on 2/12/2026 1:26:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26020092
Report Date: 27-Mar-26

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	31
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 26020092

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Mar-26

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 26020092

Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26020092
Report Date: 27-Mar-26

Cooler Receipt Temp: 5.4 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville

Address 120 United Drive
Collinsville, IL 62234-7433
Phone (618) 344-1004
Fax
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 120 United Drive
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100467	NELAP	1/31/2027	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2026	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2026	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2026	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2026	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kansas	KDHE	E-92716		1/31/2027	Collinsville
Kentucky	KWLCP	KY98050		12/31/2026	Collinsville
Kentucky	KWLCP	KY98006		12/31/2026	Collinsville
Kentucky	UST	0073		1/31/2027	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 02/12/2026 10:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	02/12/2026 10:28	R379198
Depth to water	*	-5.00		**10.15**	ft	1	02/12/2026 10:28	R379198
Depth to water from measuring point	*	0		**12.85**	ft	1	02/12/2026 10:28	R379198
Elevation of groundwater surface	*	0		**526.65**	ft	1	02/12/2026 10:28	R379198
Measuring Point Elevation	*	0		**539.50**	ft	1	02/12/2026 10:28	R379198
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	02/12/2026 10:28	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.4**	NTU	1	02/12/2026 10:28	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.7**	°F	1	02/12/2026 10:28	R379198
SW-846 9040B								
pH, Field	*	1.00		**7.18**		1	02/12/2026 10:28	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**793**	µmhos/cm @25C	1	02/12/2026 10:28	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**404**	mg/L	1	02/18/2026 16:42	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/15/2026 19:36	R379074
Chloride	NELAP	5.00		**27.5**	mg/L	10	02/15/2026 19:36	R379074
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/15/2026 19:36	R379074
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**138**	µg/L	1	02/14/2026 16:30	251804
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 16:30	251804
Boron	NELAP	20.0		**148**	µg/L	1	02/14/2026 16:30	251804
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 16:30	251804
Calcium	NELAP	0.100	S	**66.9**	mg/L	1	02/14/2026 16:30	251804
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:30	251804
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:30	251804
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 16:30	251804
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 16:30	251804
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 5:12	251804
Arsenic	NELAP	1.0		**65.4**	µg/L	5	02/21/2026 5:12	251804
Lithium	*	3.0		**5.6**	µg/L	5	02/24/2026 10:40	251804
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 5:12	251804
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 5:12	251804
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/17/2026 12:51	251890
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/24/2026 10:44	R381190
Combined 226/228 Uncertainty	*	0		**0.500**	+/-	1	02/24/2026 10:44	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/24/2026 10:44	R381190
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	02/24/2026 10:44	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/23/2026 12:19	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 02/12/2026 10:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.420**	+/-	1	02/23/2026 12:19	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-002
Client Sample ID: AP-1
Matrix: GROUNDWATER
Collection Date: 02/12/2026 10:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**504.29**	ft	1	02/12/2026 10:30	R379198
Depth to water	*	-5.00		**8.78**	ft	1	02/12/2026 10:30	R379198
Depth to water from measuring point	*	0		**11.05**	ft	1	02/12/2026 10:30	R379198
Elevation of groundwater surface	*	0		**524.32**	ft	1	02/12/2026 10:30	R379198
Measuring Point Elevation	*	0		**535.37**	ft	1	02/12/2026 10:30	R379198
Measuring Point Height Above Land Surface	*	0		**2.27**	ft	1	02/12/2026 10:30	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.2**	NTU	1	02/12/2026 10:30	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.4**	°F	1	02/12/2026 10:30	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.67**		1	02/12/2026 10:30	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1750**	µmhos/cm @25C	1	02/12/2026 10:30	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1630**	mg/L	1	02/18/2026 16:42	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/15/2026 19:48	R379074
Chloride	NELAP	5.00		**51.8**	mg/L	10	02/15/2026 19:48	R379074
Sulfate	NELAP	10.0		**897**	mg/L	10	02/15/2026 19:48	R379074
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**262**	µg/L	1	02/14/2026 16:35	251804
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 16:35	251804
Boron	NELAP	200		**24100**	µg/L	10	02/18/2026 15:41	251804
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 16:35	251804
Calcium	NELAP	0.100		**255**	mg/L	1	02/14/2026 16:35	251804
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:35	251804
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:35	251804
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 16:35	251804
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 16:35	251804
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 5:53	251804
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	02/23/2026 20:35	251804
Lithium	*	3.0		**10.6**	µg/L	5	02/23/2026 20:35	251804
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/23/2026 20:35	251804
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 5:53	251804
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/17/2026 12:53	251890
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/24/2026 10:44	R381190
Combined 226/228 Uncertainty	*	0		**0.620**	+/-	1	02/24/2026 10:44	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/24/2026 10:44	R381190
Radium-226 Uncertainty	*	0		**0.140**	+/-	1	02/24/2026 10:44	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/23/2026 12:19	R381189
Radium-228 Uncertainty	*	0		**0.480**	+/-	1	02/23/2026 12:19	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 02/12/2026 11:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	02/12/2026 11:06	R379198
Depth to water	*	-5.00		**6.43**	ft	1	02/12/2026 11:06	R379198
Depth to water from measuring point	*	0		**8.93**	ft	1	02/12/2026 11:06	R379198
Elevation of groundwater surface	*	0		**527.17**	ft	1	02/12/2026 11:06	R379198
Measuring Point Elevation	*	0		**536.10**	ft	1	02/12/2026 11:06	R379198
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	02/12/2026 11:06	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.6**	NTU	1	02/12/2026 11:06	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.1**	°F	1	02/12/2026 11:06	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.59**		1	02/12/2026 11:06	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1300**	µmhos/cm @25C	1	02/12/2026 11:06	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1080**	mg/L	1	02/18/2026 16:51	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/15/2026 20:01	R379074
Chloride	NELAP	5.00		**37.6**	mg/L	10	02/15/2026 20:01	R379074
Sulfate	NELAP	10.0		**390**	mg/L	10	02/15/2026 20:01	R379074
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**71.3**	µg/L	1	02/14/2026 16:36	251804
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 16:36	251804
Boron	NELAP	20.0		**2840**	µg/L	1	02/14/2026 16:36	251804
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 16:36	251804
Calcium	NELAP	0.100		**205**	mg/L	1	02/14/2026 16:36	251804
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:36	251804
Cobalt	NELAP	5.0		**6.3**	µg/L	1	02/14/2026 16:36	251804
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 16:36	251804
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 16:36	251804
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 5:59	251804
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	02/23/2026 20:41	251804
Lithium	*	3.0		**7.1**	µg/L	5	02/23/2026 20:41	251804
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/23/2026 20:41	251804
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 5:59	251804
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/17/2026 12:59	251890
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	03/11/2026 7:43	R381190
Combined 226/228 Uncertainty	*	0		**0.650**	pci/L	1	03/11/2026 7:43	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.100**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**ND**	pci/L	1	03/09/2026 13:01	R381189
Radium-228 Uncertainty	*	0		**0.550**	+/-	1	03/09/2026 13:01	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 02/12/2026 10:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	02/12/2026 10:15	R379198
Depth to water	*	-5.00		**7.43**	ft	1	02/12/2026 10:15	R379198
Depth to water from measuring point	*	0		**9.98**	ft	1	02/12/2026 10:15	R379198
Elevation of groundwater surface	*	0		**525.27**	ft	1	02/12/2026 10:15	R379198
Measuring Point Elevation	*	0		**535.25**	ft	1	02/12/2026 10:15	R379198
Measuring Point Height Above Land Surface	*	0		**2.55**	ft	1	02/12/2026 10:15	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**36**	NTU	1	02/12/2026 10:15	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**53.7**	°F	1	02/12/2026 10:15	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.62**		1	02/12/2026 10:15	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1320**	µmhos/cm @25C	1	02/12/2026 10:15	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1190**	mg/L	1	02/18/2026 16:51	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/15/2026 20:14	R379074
Chloride	NELAP	5.00		**72.8**	mg/L	10	02/15/2026 20:14	R379074
Sulfate	NELAP	10.0		**608**	mg/L	10	02/15/2026 20:14	R379074
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**134**	µg/L	1	02/14/2026 16:38	251804
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 16:38	251804
Boron	NELAP	20.0		**15900**	µg/L	1	02/14/2026 16:38	251804
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 16:38	251804
Calcium	NELAP	0.100		**195**	mg/L	1	02/14/2026 16:38	251804
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:38	251804
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:38	251804
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 16:38	251804
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 16:38	251804
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 6:04	251804
Arsenic	NELAP	1.0		**17.5**	µg/L	5	02/23/2026 20:46	251804
Lithium	*	3.0		**4.7**	µg/L	5	02/23/2026 20:46	251804
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/23/2026 20:46	251804
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 6:04	251804
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/17/2026 13:01	251890
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Combined 226/228 Uncertainty	*	0		**0.760**	+/-	1	02/27/2026 7:28	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**1.12**	pci/L	1	02/26/2026 13:46	R381189
Radium-228 Uncertainty	*	0		**0.680**	+/-	1	02/26/2026 13:46	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-005
Client Sample ID: AP-4
Matrix: GROUNDWATER
Collection Date: 02/11/2026 14:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.19**	ft	1	02/11/2026 14:21	R379198
Depth to water	*	-5.00		**9.80**	ft	1	02/11/2026 14:21	R379198
Depth to water from measuring point	*	0		**12.94**	ft	1	02/11/2026 14:21	R379198
Elevation of groundwater surface	*	0		**542.66**	ft	1	02/11/2026 14:21	R379198
Measuring Point Elevation	*	0		**555.60**	ft	1	02/11/2026 14:21	R379198
Measuring Point Height Above Land Surface	*	0		**3.14**	ft	1	02/11/2026 14:21	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.0**	NTU	1	02/11/2026 14:21	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.7**	°F	1	02/11/2026 14:21	R379198
SW-846 9040B								
pH, Field	*	1.00		**7.27**		1	02/11/2026 14:21	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**674**	µmhos/cm @25C	1	02/11/2026 14:21	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**426**	mg/L	1	02/18/2026 9:56	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 11:11	R379009
Chloride	NELAP	5.00		**12.5**	mg/L	10	02/13/2026 11:11	R379009
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/13/2026 11:11	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**243**	µg/L	1	02/14/2026 13:57	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 13:57	251742
Boron	NELAP	20.0		**96.2**	µg/L	1	02/14/2026 13:57	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 13:57	251742
Calcium	NELAP	0.100		**81.8**	mg/L	1	02/14/2026 13:57	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 13:57	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 13:57	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 13:57	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 13:57	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 22:52	251742
Arsenic	NELAP	1.0		**2.6**	µg/L	5	02/20/2026 22:52	251742
Lithium	*	3.0		**8.0**	µg/L	5	02/20/2026 22:52	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 22:52	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/20/2026 22:52	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:17	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Combined 226/228 Uncertainty	*	0		**0.770**	+/-	1	02/27/2026 7:28	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/26/2026 13:46	R381189
Radium-228 Uncertainty	*	0		**0.690**	+/-	1	02/26/2026 13:46	R381189

Client: City Water, Light & Power **Work Order:** 26020092

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Mar-26

Lab ID: 26020092-006 **Client Sample ID:** AP-5

Matrix: GROUNDWATER **Collection Date:** 02/11/2026 13:44

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**552.63**	ft	1	02/11/2026 13:44	R379198
Depth to water	*	-5.00		**16.92**	ft	1	02/11/2026 13:44	R379198
Depth to water from measuring point	*	0		**19.22**	ft	1	02/11/2026 13:44	R379198
Elevation of groundwater surface	*	0		**564.68**	ft	1	02/11/2026 13:44	R379198
Measuring Point Elevation	*	0		**583.90**	ft	1	02/11/2026 13:44	R379198
Measuring Point Height Above Land Surface	*	0		**2.30**	ft	1	02/11/2026 13:44	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	02/11/2026 13:44	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.7**	°F	1	02/11/2026 13:44	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.87**		1	02/11/2026 13:44	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**745**	µmhos/cm @25C	1	02/11/2026 13:44	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**496**	mg/L	1	02/18/2026 9:56	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 11:24	R379009
Chloride	NELAP	5.00		**10.0**	mg/L	10	02/13/2026 11:24	R379009
Sulfate	NELAP	10.0		**70.7**	mg/L	10	02/13/2026 11:24	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**64.4**	µg/L	1	02/14/2026 13:59	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 13:59	251742
Boron	NELAP	20.0		**37.3**	µg/L	1	02/14/2026 13:59	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 13:59	251742
Calcium	NELAP	0.100		**106**	mg/L	1	02/14/2026 13:59	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 13:59	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 13:59	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 13:59	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 13:59	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 22:58	251742
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 22:58	251742
Lithium	*	3.0		**6.0**	µg/L	5	02/20/2026 22:58	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 22:58	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/20/2026 22:58	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:19	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Combined 226/228 Uncertainty	*	0		**0.700**	+/-	1	02/27/2026 7:28	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/26/2026 13:46	R381189
Radium-228 Uncertainty	*	0		**0.620**	+/-	1	02/26/2026 13:46	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-007
Client Sample ID: AP-6
Matrix: GROUNDWATER
Collection Date: 02/12/2026 9:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.20**	ft	1	02/12/2026 9:47	R379198
Depth to water	*	-5.00		**8.87**	ft	1	02/12/2026 9:47	R379198
Depth to water from measuring point	*	0		**11.29**	ft	1	02/12/2026 9:47	R379198
Elevation of groundwater surface	*	0		**526.53**	ft	1	02/12/2026 9:47	R379198
Measuring Point Elevation	*	0		**537.82**	ft	1	02/12/2026 9:47	R379198
Measuring Point Height Above Land Surface	*	0		**2.42**	ft	1	02/12/2026 9:47	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**24**	NTU	1	02/12/2026 9:47	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**47.1**	°F	1	02/12/2026 9:47	R379198
SW-846 9040B								
pH, Field	*	1.00		**7.11**		1	02/12/2026 9:47	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**777**	µmhos/cm @25C	1	02/12/2026 9:47	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**402**	mg/L	1	02/18/2026 16:57	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**0.52**	mg/L	10	02/15/2026 20:26	R379074
Chloride	NELAP	5.00		**35.8**	mg/L	10	02/15/2026 20:26	R379074
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/15/2026 20:26	R379074
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**153**	µg/L	1	02/14/2026 16:40	251804
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 16:40	251804
Boron	NELAP	20.0		**269**	µg/L	1	02/14/2026 16:40	251804
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 16:40	251804
Calcium	NELAP	0.100		**68.8**	mg/L	1	02/14/2026 16:40	251804
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:40	251804
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:40	251804
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 16:40	251804
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 16:40	251804
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 6:10	251804
Arsenic	NELAP	1.0		**11.4**	µg/L	5	02/23/2026 20:52	251804
Lithium	*	3.0		**6.0**	µg/L	5	02/23/2026 20:52	251804
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/23/2026 20:52	251804
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 6:10	251804
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/17/2026 13:04	251890
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Combined 226/228 Uncertainty	*	0		**0.810**	+/-	1	02/27/2026 7:28	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**1.55**	pci/L	1	02/26/2026 13:46	R381189
Radium-228 Uncertainty	*	0		**0.740**	+/-	1	02/26/2026 13:46	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 02/11/2026 12:37

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	02/11/2026 12:37	R379198
Depth to water	*	-5.00		**11.48**	ft	1	02/11/2026 12:37	R379198
Depth to water from measuring point	*	0		**14.14**	ft	1	02/11/2026 12:37	R379198
Elevation of groundwater surface	*	0		**524.88**	ft	1	02/11/2026 12:37	R379198
Measuring Point Elevation	*	0		**539.02**	ft	1	02/11/2026 12:37	R379198
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	02/11/2026 12:37	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.8**	NTU	1	02/11/2026 12:37	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.2**	°F	1	02/11/2026 12:37	R379198
SW-846 9040B								
pH, Field	*	1.00		**7.13**		1	02/11/2026 12:37	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**807**	µmhos/cm @25C	1	02/11/2026 12:37	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**498**	mg/L	1	02/18/2026 9:56	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**0.59**	mg/L	10	02/13/2026 11:36	R379009
Chloride	NELAP	5.00		**84.9**	mg/L	10	02/13/2026 11:36	R379009
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/13/2026 11:36	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**157**	µg/L	1	02/14/2026 14:01	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:01	251742
Boron	NELAP	20.0		**462**	µg/L	1	02/14/2026 14:01	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:01	251742
Calcium	NELAP	0.100		**54.4**	mg/L	1	02/14/2026 14:01	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:01	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:01	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:01	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:01	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 23:03	251742
Arsenic	NELAP	1.0		**32.5**	µg/L	5	02/20/2026 23:03	251742
Lithium	*	3.0		**11.7**	µg/L	5	02/20/2026 23:03	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 23:03	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/20/2026 23:03	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:21	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Combined 226/228 Uncertainty	*	0		**0.700**	+/-	1	02/27/2026 7:28	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/26/2026 13:46	R381189
Radium-228 Uncertainty	*	0		**0.620**	+/-	1	02/26/2026 13:46	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 02/12/2026 11:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	02/12/2026 11:28	R379198
Depth to water	*	-5.00		**5.86**	ft	1	02/12/2026 11:28	R379198
Depth to water from measuring point	*	0		**8.76**	ft	1	02/12/2026 11:28	R379198
Elevation of groundwater surface	*	0		**528.44**	ft	1	02/12/2026 11:28	R379198
Measuring Point Elevation	*	0		**537.20**	ft	1	02/12/2026 11:28	R379198
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	02/12/2026 11:28	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.4**	NTU	1	02/12/2026 11:28	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.0**	°F	1	02/12/2026 11:28	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.93**		1	02/12/2026 11:28	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**856**	µmhos/cm @25C	1	02/12/2026 11:28	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**530**	mg/L	1	02/18/2026 16:57	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/15/2026 20:39	R379074
Chloride	NELAP	5.00		**23.4**	mg/L	10	02/15/2026 20:39	R379074
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/15/2026 20:39	R379074
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**373**	µg/L	1	02/14/2026 16:41	251804
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 16:41	251804
Boron	NELAP	20.0		**85.6**	µg/L	1	02/14/2026 16:41	251804
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 16:41	251804
Calcium	NELAP	0.100		**99.0**	mg/L	1	02/14/2026 16:41	251804
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:41	251804
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:41	251804
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 16:41	251804
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 16:41	251804
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 6:16	251804
Arsenic	NELAP	1.0		**39.4**	µg/L	5	02/24/2026 10:25	251804
Lithium	*	3.0		**6.8**	µg/L	5	02/24/2026 10:25	251804
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/24/2026 10:25	251804
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 6:16	251804
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/17/2026 13:06	251890
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**2.25**	pci/L	1	02/27/2026 7:28	R381190
Combined 226/228 Uncertainty	*	0		**0.990**	+/-	1	02/27/2026 7:28	R381190
Radium-226	*	1.00		**1.00**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.160**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**1.25**	pci/L	1	02/26/2026 13:46	R381189
Radium-228 Uncertainty	*	0		**0.830**	+/-	1	02/26/2026 13:46	R381189

Client: City Water, Light & Power **Work Order:** 26020092

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Mar-26

Lab ID: 26020092-010 **Client Sample ID:** AP-9

Matrix: GROUNDWATER **Collection Date:** 02/11/2026 10:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.70**	ft	1	02/11/2026 10:32	R379198
Depth to water	*	-5.00		**10.99**	ft	1	02/11/2026 10:32	R379198
Depth to water from measuring point	*	0		**14.09**	ft	1	02/11/2026 10:32	R379198
Elevation of groundwater surface	*	0		**526.21**	ft	1	02/11/2026 10:32	R379198
Measuring Point Elevation	*	0		**540.30**	ft	1	02/11/2026 10:32	R379198
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	02/11/2026 10:32	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	02/11/2026 10:32	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.4**	°F	1	02/11/2026 10:32	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.70**		1	02/11/2026 10:32	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**998**	µmhos/cm @25C	1	02/11/2026 10:32	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**630**	mg/L	1	02/18/2026 10:11	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 11:49	R379009
Chloride	NELAP	5.00		**24.6**	mg/L	10	02/13/2026 11:49	R379009
Sulfate	NELAP	10.0		**14.7**	mg/L	10	02/13/2026 11:49	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**440**	µg/L	1	02/14/2026 14:02	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:02	251742
Boron	NELAP	20.0		**98.5**	µg/L	1	02/14/2026 14:02	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:02	251742
Calcium	NELAP	0.100		**104**	mg/L	1	02/14/2026 14:02	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:02	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:02	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:02	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:02	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 23:09	251742
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	02/23/2026 15:32	251742
Lithium	*	3.0		**5.7**	µg/L	5	02/20/2026 23:09	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 23:09	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/20/2026 23:09	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:23	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Combined 226/228 Uncertainty	*	0		**1.03**	+/-	1	02/27/2026 7:28	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.120**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**1.22**	pci/L	1	02/26/2026 13:46	R381189
Radium-228 Uncertainty	*	0		**0.910**	+/-	1	02/26/2026 13:46	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-011
Client Sample ID: AP10
Matrix: GROUNDWATER
Collection Date: 02/12/2026 10:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**499.43**	ft	1	02/12/2026 10:53	R379198
Depth to water	*	-5.00		**4.29**	ft	1	02/12/2026 10:53	R379198
Depth to water from measuring point	*	0		**7.39**	ft	1	02/12/2026 10:53	R379198
Elevation of groundwater surface	*	0		**530.11**	ft	1	02/12/2026 10:53	R379198
Measuring Point Elevation	*	0		**537.50**	ft	1	02/12/2026 10:53	R379198
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	02/12/2026 10:53	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**1.7**	NTU	1	02/12/2026 10:53	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**53.1**	°F	1	02/12/2026 10:53	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.71**		1	02/12/2026 10:53	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1080**	µmhos/cm @25C	1	02/12/2026 10:53	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**796**	mg/L	1	02/18/2026 16:57	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/15/2026 20:52	R379074
Chloride	NELAP	5.00		**25.9**	mg/L	10	02/15/2026 20:52	R379074
Sulfate	NELAP	10.0		**91.2**	mg/L	10	02/15/2026 20:52	R379074
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**636**	µg/L	1	02/14/2026 16:43	251804
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 16:43	251804
Boron	NELAP	20.0		**3970**	µg/L	1	02/14/2026 16:43	251804
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 16:43	251804
Calcium	NELAP	0.100		**149**	mg/L	1	02/14/2026 16:43	251804
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:43	251804
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:43	251804
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 16:43	251804
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 16:43	251804
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 6:21	251804
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	02/24/2026 10:30	251804
Lithium	*	3.0		**9.0**	µg/L	5	02/24/2026 10:30	251804
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/24/2026 10:30	251804
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 6:21	251804
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/17/2026 13:08	251890
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**2.99**	pci/L	1	03/11/2026 7:43	R381190
Combined 226/228 Uncertainty	*	0		**0.750**	+/-	1	03/11/2026 7:43	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.170**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**2.01**	pci/L	1	03/09/2026 13:01	R381189
Radium-228 Uncertainty	*	0		**0.580**	+/-	1	03/09/2026 13:01	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-012
Client Sample ID: AP11
Matrix: GROUNDWATER
Collection Date: 02/11/2026 9:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.15**	ft	1	02/11/2026 9:54	R379198
Depth to water	*	-5.00		**12.62**	ft	1	02/11/2026 9:54	R379198
Depth to water from measuring point	*	0		**15.42**	ft	1	02/11/2026 9:54	R379198
Elevation of groundwater surface	*	0		**522.68**	ft	1	02/11/2026 9:54	R379198
Measuring Point Elevation	*	0		**538.10**	ft	1	02/11/2026 9:54	R379198
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	02/11/2026 9:54	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.2**	NTU	1	02/11/2026 9:54	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**50.4**	°F	1	02/11/2026 9:54	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.49**		1	02/11/2026 9:54	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1070**	µmhos/cm @25C	1	02/11/2026 9:54	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**676**	mg/L	1	02/18/2026 10:11	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 12:02	R379009
Chloride	NELAP	5.00		**112**	mg/L	10	02/13/2026 12:02	R379009
Sulfate	NELAP	10.0		**64.4**	mg/L	10	02/13/2026 12:02	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**124**	µg/L	1	02/14/2026 14:04	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:04	251742
Boron	NELAP	20.0		**268**	µg/L	1	02/14/2026 14:04	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:04	251742
Calcium	NELAP	0.100	S	**132**	mg/L	1	02/14/2026 14:04	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:04	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:04	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:04	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:04	251742
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 23:15	251742
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 23:15	251742
Lithium	*	3.0		**5.8**	µg/L	5	02/20/2026 23:15	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/20/2026 23:15	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/20/2026 23:15	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:29	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Combined 226/228 Uncertainty	*	0		**0.870**	+/-	1	02/27/2026 7:28	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**1.42**	pci/L	1	02/26/2026 13:46	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-012
Client Sample ID: AP11
Matrix: GROUNDWATER
Collection Date: 02/11/2026 9:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.800**	+/-	1	02/26/2026 13:46	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-013
Client Sample ID: AP12
Matrix: GROUNDWATER
Collection Date: 02/11/2026 11:11

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**510.30**	ft	1	02/11/2026 11:11	R379198
Depth to water	*	-5.00		**15.23**	ft	1	02/11/2026 11:11	R379198
Depth to water from measuring point	*	0		**18.13**	ft	1	02/11/2026 11:11	R379198
Elevation of groundwater surface	*	0		**522.57**	ft	1	02/11/2026 11:11	R379198
Measuring Point Elevation	*	0		**540.70**	ft	1	02/11/2026 11:11	R379198
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	02/11/2026 11:11	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**25**	NTU	1	02/11/2026 11:11	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**52.7**	°F	1	02/11/2026 11:11	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.51**		1	02/11/2026 11:11	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1470**	µmhos/cm @25C	1	02/11/2026 11:11	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1090**	mg/L	1	02/18/2026 10:11	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 12:14	R379009
Chloride	NELAP	5.00		**110**	mg/L	10	02/13/2026 12:14	R379009
Sulfate	NELAP	10.0		**362**	mg/L	10	02/13/2026 12:14	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**56.0**	µg/L	1	02/14/2026 14:09	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:09	251742
Boron	NELAP	20.0		**34.4**	µg/L	1	02/14/2026 14:09	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:09	251742
Calcium	NELAP	0.100		**190**	mg/L	1	02/14/2026 14:09	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:09	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:09	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:09	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:09	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:19	251742
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:19	251742
Lithium	*	3.0		**6.9**	µg/L	5	02/24/2026 11:39	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:19	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 0:19	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:32	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Combined 226/228 Uncertainty	*	0		**0.630**	+/-	1	02/27/2026 7:28	R381190
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R381190
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	02/27/2026 7:28	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/26/2026 13:46	R381189
Radium-228 Uncertainty	*	0		**0.560**	+/-	1	02/26/2026 13:46	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-014
Client Sample ID: AP13
Matrix: GROUNDWATER
Collection Date: 02/11/2026 11:51

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.00**	ft	1	02/11/2026 11:51	R379198
Depth to water	*	-5.00		**16.37**	ft	1	02/11/2026 11:51	R379198
Depth to water from measuring point	*	0		**19.77**	ft	1	02/11/2026 11:51	R379198
Elevation of groundwater surface	*	0		**522.23**	ft	1	02/11/2026 11:51	R379198
Measuring Point Elevation	*	0		**542.00**	ft	1	02/11/2026 11:51	R379198
Measuring Point Height Above Land Surface	*	0		**3.40**	ft	1	02/11/2026 11:51	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**30**	NTU	1	02/11/2026 11:51	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**51.5**	°F	1	02/11/2026 11:51	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.67**		1	02/11/2026 11:51	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**821**	µmhos/cm @25C	1	02/11/2026 11:51	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**556**	mg/L	1	02/18/2026 10:11	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 12:27	R379009
Chloride	NELAP	5.00		**25.9**	mg/L	10	02/13/2026 12:27	R379009
Sulfate	NELAP	10.0		**114**	mg/L	10	02/13/2026 12:27	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**120**	µg/L	1	02/14/2026 14:10	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:10	251742
Boron	NELAP	20.0		**32.2**	µg/L	1	02/14/2026 14:10	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:10	251742
Calcium	NELAP	0.100		**110**	mg/L	1	02/14/2026 14:10	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:10	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:10	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:10	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:10	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:25	251742
Arsenic	NELAP	1.0		**1.8**	µg/L	5	02/21/2026 0:25	251742
Lithium	*	3.0		**11.8**	µg/L	5	02/23/2026 16:24	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:25	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 0:25	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:34	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Combined 226/228 Uncertainty	*	0		**0.430**	+/-	1	03/02/2026 7:52	R381190
Radium-226	*	1.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	03/02/2026 7:52	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/27/2026 12:43	R381189
Radium-228 Uncertainty	*	0		**0.350**	+/-	1	02/27/2026 12:43	R381189

Client: City Water, Light & Power **Work Order:** 26020092

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Mar-26

Lab ID: 26020092-015 **Client Sample ID:** AP14

Matrix: GROUNDWATER **Collection Date:** 02/12/2026 9:41

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**508.40**	ft	1	02/12/2026 9:41	R379198
Depth to water	*	-5.00		**0.69**	ft	1	02/12/2026 9:41	R379198
Depth to water from measuring point	*	0		**3.49**	ft	1	02/12/2026 9:41	R379198
Elevation of groundwater surface	*	0		**536.11**	ft	1	02/12/2026 9:41	R379198
Measuring Point Elevation	*	0		**539.60**	ft	1	02/12/2026 9:41	R379198
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	02/12/2026 9:41	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	02/12/2026 9:41	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**50.5**	°F	1	02/12/2026 9:41	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.90**		1	02/12/2026 9:41	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1900**	µmhos/cm @25C	1	02/12/2026 9:41	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1950**	mg/L	1	02/18/2026 16:57	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/15/2026 21:04	R379074
Chloride	NELAP	5.00		**124**	mg/L	10	02/15/2026 21:04	R379074
Sulfate	NELAP	10.0		**1110**	mg/L	10	02/15/2026 21:04	R379074
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**51.9**	µg/L	1	02/14/2026 16:52	251804
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 16:52	251804
Boron	NELAP	200		**22700**	µg/L	10	02/18/2026 15:43	251804
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 16:52	251804
Calcium	NELAP	0.100		**312**	mg/L	1	02/14/2026 16:52	251804
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:52	251804
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:52	251804
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 16:52	251804
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 16:52	251804
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 6:27	251804
Arsenic	NELAP	1.0		**2.9**	µg/L	5	02/24/2026 11:44	251804
Lithium	*	3.0		**8.6**	µg/L	5	02/24/2026 11:44	251804
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/24/2026 11:44	251804
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 6:27	251804
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/17/2026 13:46	251890
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Combined 226/228 Uncertainty	*	0		**0.650**	+/-	1	03/02/2026 7:52	R381190
Radium-226	*	1.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Radium-226 Uncertainty	*	0		**0.100**	+/-	1	03/02/2026 7:52	R381190
Radium-228	*	1.00		**1.10**	pci/L	1	02/27/2026 12:43	R381189
Radium-228 Uncertainty	*	0		**0.550**	+/-	1	02/27/2026 12:43	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-016
Client Sample ID: T-01
Matrix: GROUNDWATER
Collection Date: 02/11/2026 12:41

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**512.70**	ft	1	02/11/2026 12:41	R379198
Depth to water	*	-5.00		**14.42**	ft	1	02/11/2026 12:41	R379198
Depth to water from measuring point	*	0		**14.75**	ft	1	02/11/2026 12:41	R379198
Elevation of groundwater surface	*	0		**520.90**	ft	1	02/11/2026 12:41	R379198
Measuring Point Elevation	*	0		**535.65**	ft	1	02/11/2026 12:41	R379198
Measuring Point Height Above Land Surface	*	0		**0.33**	ft	1	02/11/2026 12:41	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**21**	NTU	1	02/11/2026 12:41	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**52.7**	°F	1	02/11/2026 12:41	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.54**		1	02/11/2026 12:41	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1530**	µmhos/cm @25C	1	02/11/2026 12:41	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1020**	mg/L	1	02/18/2026 10:11	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 12:40	R379009
Chloride	NELAP	5.00		**249**	mg/L	10	02/13/2026 12:40	R379009
Sulfate	NELAP	10.0		**176**	mg/L	10	02/13/2026 12:40	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**64.8**	µg/L	1	02/14/2026 14:20	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:20	251742
Boron	NELAP	20.0		**159**	µg/L	1	02/14/2026 14:20	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:20	251742
Calcium	NELAP	0.100		**165**	mg/L	1	02/14/2026 14:20	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:20	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:20	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:20	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:20	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:30	251742
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:30	251742
Lithium	*	3.0		**15.8**	µg/L	5	02/23/2026 16:30	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:30	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 0:30	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:36	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Combined 226/228 Uncertainty	*	0		**0.370**	+/-	1	03/02/2026 7:52	R381190
Radium-226	*	1.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	03/02/2026 7:52	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/27/2026 12:43	R381189
Radium-228 Uncertainty	*	0		**0.310**	+/-	1	02/27/2026 12:43	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-017
Client Sample ID: T-02
Matrix: GROUNDWATER
Collection Date: 02/11/2026 10:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.18**	ft	1	02/11/2026 10:32	R379198
Depth to water	*	-5.00		**24.91**	ft	1	02/11/2026 10:32	R379198
Depth to water from measuring point	*	0		**27.31**	ft	1	02/11/2026 10:32	R379198
Elevation of groundwater surface	*	0		**522.31**	ft	1	02/11/2026 10:32	R379198
Measuring Point Elevation	*	0		**549.62**	ft	1	02/11/2026 10:32	R379198
Measuring Point Height Above Land Surface	*	0		**2.40**	ft	1	02/11/2026 10:32	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.3**	NTU	1	02/11/2026 10:32	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**51.3**	°F	1	02/11/2026 10:32	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.51**		1	02/11/2026 10:32	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2060**	µmhos/cm @25C	1	02/11/2026 10:32	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1270**	mg/L	1	02/18/2026 10:27	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 13:56	R379009
Chloride	NELAP	5.00		**462**	mg/L	10	02/13/2026 13:56	R379009
Sulfate	NELAP	10.0		**87.0**	mg/L	10	02/13/2026 13:56	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**200**	µg/L	1	02/14/2026 14:21	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:21	251742
Boron	NELAP	20.0		**47.9**	µg/L	1	02/14/2026 14:21	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:21	251742
Calcium	NELAP	0.100		**206**	mg/L	1	02/14/2026 14:21	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:21	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:21	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:21	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:21	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:36	251742
Arsenic	NELAP	1.0		**5.5**	µg/L	5	02/21/2026 0:36	251742
Lithium	*	3.0		**33.8**	µg/L	5	02/27/2026 13:19	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:36	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 0:36	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:42	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Combined 226/228 Uncertainty	*	0		**0.500**	+/-	1	03/02/2026 7:52	R381190
Radium-226	*	1.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Radium-226 Uncertainty	*	0		**0.110**	+/-	1	03/02/2026 7:52	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/27/2026 12:43	R381189
Radium-228 Uncertainty	*	0		**0.390**	+/-	1	02/27/2026 12:43	R381189

Client: City Water, Light & Power **Work Order:** 26020092

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Mar-26

Lab ID: 26020092-018 **Client Sample ID:** T-04

Matrix: GROUNDWATER **Collection Date:** 02/11/2026 9:51

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**521.52**	ft	1	02/11/2026 9:51	R379198
Depth to water	*	-5.00		**18.01**	ft	1	02/11/2026 9:51	R379198
Depth to water from measuring point	*	0		**20.39**	ft	1	02/11/2026 9:51	R379198
Elevation of groundwater surface	*	0		**528.55**	ft	1	02/11/2026 9:51	R379198
Measuring Point Elevation	*	0		**548.94**	ft	1	02/11/2026 9:51	R379198
Measuring Point Height Above Land Surface	*	0		**2.38**	ft	1	02/11/2026 9:51	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**81**	NTU	1	02/11/2026 9:51	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**52.8**	°F	1	02/11/2026 9:51	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.36**		1	02/11/2026 9:51	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**530**	µmhos/cm @25C	1	02/11/2026 9:51	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**340**	mg/L	1	02/18/2026 10:27	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 14:09	R379009
Chloride	NELAP	5.00		**ND**	mg/L	10	02/13/2026 14:09	R379009
Sulfate	NELAP	10.0		**76.0**	mg/L	10	02/13/2026 14:09	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**41.4**	µg/L	1	02/14/2026 14:23	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:23	251742
Boron	NELAP	20.0		**42.2**	µg/L	1	02/14/2026 14:23	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:23	251742
Calcium	NELAP	0.100		**61.9**	mg/L	1	02/14/2026 14:23	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:23	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:23	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:23	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:23	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:42	251742
Arsenic	NELAP	1.0		**2.6**	µg/L	5	02/21/2026 0:42	251742
Lithium	*	3.0		**31.6**	µg/L	5	02/24/2026 8:10	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:42	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 0:42	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:44	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Combined 226/228 Uncertainty	*	0		**0.450**	+/-	1	03/02/2026 7:52	R381190
Radium-226	*	1.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Radium-226 Uncertainty	*	0		**0.090**	+/-	1	03/02/2026 7:52	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/27/2026 12:43	R381189
Radium-228 Uncertainty	*	0		**0.360**	+/-	1	02/27/2026 12:43	R381189

Client: City Water, Light & Power **Work Order:** 26020092

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Mar-26

Lab ID: 26020092-019 **Client Sample ID:** T-05

Matrix: GROUNDWATER **Collection Date:** 02/11/2026 11:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**518.32**	ft	1	02/11/2026 11:26	R379198
Depth to water	*	-5.00		**12.00**	ft	1	02/11/2026 11:26	R379198
Depth to water from measuring point	*	0		**14.51**	ft	1	02/11/2026 11:26	R379198
Elevation of groundwater surface	*	0		**526.15**	ft	1	02/11/2026 11:26	R379198
Measuring Point Elevation	*	0		**540.66**	ft	1	02/11/2026 11:26	R379198
Measuring Point Height Above Land Surface	*	0		**2.51**	ft	1	02/11/2026 11:26	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.5**	NTU	1	02/11/2026 11:26	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.1**	°F	1	02/11/2026 11:26	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.68**		1	02/11/2026 11:26	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**813**	µmhos/cm @25C	1	02/11/2026 11:26	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**520**	mg/L	1	02/18/2026 10:27	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 14:21	R379009
Chloride	NELAP	5.00		**ND**	mg/L	10	02/13/2026 14:21	R379009
Sulfate	NELAP	10.0		**106**	mg/L	10	02/13/2026 14:21	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**98.6**	µg/L	1	02/14/2026 14:25	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:25	251742
Boron	NELAP	20.0		**134**	µg/L	1	02/14/2026 14:25	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:25	251742
Calcium	NELAP	0.100		**102**	mg/L	1	02/14/2026 14:25	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:25	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:25	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:25	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:25	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:47	251742
Arsenic	NELAP	1.0		**3.3**	µg/L	5	02/21/2026 0:47	251742
Lithium	*	3.0		**13.6**	µg/L	5	02/24/2026 8:58	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:47	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 0:47	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:47	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Combined 226/228 Uncertainty	*	0		**0.630**	+/-	1	03/02/2026 7:52	R381190
Radium-226	*	1.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Radium-226 Uncertainty	*	0		**0.090**	+/-	1	03/02/2026 7:52	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/27/2026 12:43	R381189
Radium-228 Uncertainty	*	0		**0.540**	+/-	1	02/27/2026 12:43	R381189

Client: City Water, Light & Power **Work Order:** 26020092

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Mar-26

Lab ID: 26020092-020 **Client Sample ID:** T-06

Matrix: GROUNDWATER **Collection Date:** 02/11/2026 12:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**494.70**	ft	1	02/11/2026 12:02	R379198
Depth to water	*	-5.00		**10.78**	ft	1	02/11/2026 12:02	R379198
Depth to water from measuring point	*	0		**13.14**	ft	1	02/11/2026 12:02	R379198
Elevation of groundwater surface	*	0		**525.18**	ft	1	02/11/2026 12:02	R379198
Measuring Point Elevation	*	0		**538.32**	ft	1	02/11/2026 12:02	R379198
Measuring Point Height Above Land Surface	*	0		**2.36**	ft	1	02/11/2026 12:02	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**66**	NTU	1	02/11/2026 12:02	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.2**	°F	1	02/11/2026 12:02	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.78**		1	02/11/2026 12:02	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**862**	µmhos/cm @25C	1	02/11/2026 12:02	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**534**	mg/L	1	02/18/2026 10:27	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 14:34	R379009
Chloride	NELAP	5.00		**20.1**	mg/L	10	02/13/2026 14:34	R379009
Sulfate	NELAP	10.0		**ND**	mg/L	10	02/13/2026 14:34	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**321**	µg/L	1	02/14/2026 14:26	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:26	251742
Boron	NELAP	20.0		**209**	µg/L	1	02/14/2026 14:26	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:26	251742
Calcium	NELAP	0.100		**93.2**	mg/L	1	02/14/2026 14:26	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:26	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:26	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:26	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:26	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:53	251742
Arsenic	NELAP	1.0		**11.4**	µg/L	5	02/21/2026 0:53	251742
Lithium	*	3.0		**20.1**	µg/L	5	02/24/2026 9:03	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:53	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 0:53	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:53	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Combined 226/228 Uncertainty	*	0		**0.630**	+/-	1	03/02/2026 7:52	R381190
Radium-226	*	1.00		**1.13**	pci/L	1	03/02/2026 7:52	R381190
Radium-226 Uncertainty	*	0		**0.150**	+/-	1	03/02/2026 7:52	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/27/2026 12:43	R381189
Radium-228 Uncertainty	*	0		**0.480**	+/-	1	02/27/2026 12:43	R381189

Client: City Water, Light & Power **Work Order:** 26020092

Client Project: Ash Pond Monitoring Wells **Report Date:** 27-Mar-26

Lab ID: 26020092-021 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 02/11/2026 12:52

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	02/11/2026 12:52	R379198
Depth to water	*	-5.00		**15.16**	ft	1	02/11/2026 12:52	R379198
Depth to water from measuring point	*	0		**17.91**	ft	1	02/11/2026 12:52	R379198
Elevation of groundwater surface	*	0		**537.69**	ft	1	02/11/2026 12:52	R379198
Measuring Point Elevation	*	0		**555.60**	ft	1	02/11/2026 12:52	R379198
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	02/11/2026 12:52	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	02/11/2026 12:52	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.2**	°F	1	02/11/2026 12:52	R379198
SW-846 9040B								
pH, Field	*	1.00		**6.66**		1	02/11/2026 12:52	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1600**	µmhos/cm @25C	1	02/11/2026 12:52	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1110**	mg/L	1	02/18/2026 10:27	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 14:47	R379009
Chloride	NELAP	5.00		**37.5**	mg/L	10	02/13/2026 14:47	R379009
Sulfate	NELAP	10.0		**397**	mg/L	10	02/13/2026 14:47	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**491**	µg/L	1	02/14/2026 14:28	251742
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 14:28	251742
Boron	NELAP	20.0		**9240**	µg/L	1	02/14/2026 14:28	251742
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 14:28	251742
Calcium	NELAP	0.100		**198**	mg/L	1	02/14/2026 14:28	251742
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:28	251742
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 14:28	251742
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 14:28	251742
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 14:28	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:59	251742
Arsenic	NELAP	1.0		**152**	µg/L	5	02/21/2026 0:59	251742
Lithium	*	3.0		**8.9**	µg/L	5	02/24/2026 9:08	251742
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 0:59	251742
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 0:59	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/14/2026 18:55	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Combined 226/228 Uncertainty	*	0		**0.520**	+/-	1	03/02/2026 7:52	R381190
Radium-226	*	1.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	03/02/2026 7:52	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/27/2026 12:43	R381189
Radium-228 Uncertainty	*	0		**0.440**	+/-	1	02/27/2026 12:43	R381189

Client: City Water, Light & Power
Work Order: 26020092
Client Project: Ash Pond Monitoring Wells
Report Date: 27-Mar-26
Lab ID: 26020092-022
Client Sample ID: G120
Matrix: GROUNDWATER
Collection Date: 02/12/2026 11:13

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	02/12/2026 11:13	R379198
Depth to water	*	-5.00		**19.60**	ft	1	02/12/2026 11:13	R379198
Depth to water from measuring point	*	0		**19.60**	ft	1	02/12/2026 11:13	R379198
Elevation of groundwater surface	*	0		**533.50**	ft	1	02/12/2026 11:13	R379198
Measuring Point Elevation	*	0		**553.10**	ft	1	02/12/2026 11:13	R379198
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	02/12/2026 11:13	R379198
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.6**	NTU	1	02/12/2026 11:13	R379198
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**54.8**	°F	1	02/12/2026 11:13	R379198
SW-846 9040B								
pH, Field	*	1.00		**7.01**		1	02/12/2026 11:13	R379198
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1870**	µmhos/cm @25C	1	02/12/2026 11:13	R379198
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1430**	mg/L	1	02/18/2026 16:57	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/15/2026 21:55	R379074
Chloride	NELAP	5.00		**37.3**	mg/L	10	02/15/2026 21:55	R379074
Sulfate	NELAP	10.0		**575**	mg/L	10	02/15/2026 21:55	R379074
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**498**	µg/L	1	02/14/2026 16:54	251804
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	02/14/2026 16:54	251804
Boron	NELAP	20.0		**7340**	µg/L	1	02/14/2026 16:54	251804
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	02/14/2026 16:54	251804
Calcium	NELAP	0.100		**256**	mg/L	1	02/14/2026 16:54	251804
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:54	251804
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	02/14/2026 16:54	251804
Lead	NELAP	7.5		**< 7.5**	µg/L	1	02/14/2026 16:54	251804
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	02/14/2026 16:54	251804
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	02/21/2026 6:33	251804
Arsenic	NELAP	1.0		**10.5**	µg/L	5	02/24/2026 11:49	251804
Lithium	*	3.0		**7.9**	µg/L	5	02/24/2026 11:49	251804
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	02/24/2026 11:49	251804
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	02/21/2026 6:33	251804
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	02/17/2026 13:49	251890
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Combined 226/228 Uncertainty	*	0		**0.520**	+/-	1	03/02/2026 7:52	R381190
Radium-226	*	1.00		**ND**	pci/L	1	03/02/2026 7:52	R381190
Radium-226 Uncertainty	*	0		**0.110**	+/-	1	03/02/2026 7:52	R381190
Radium-228	*	1.00		**ND**	pci/L	1	02/27/2026 12:43	R381189
Radium-228 Uncertainty	*	0		**0.410**	+/-	1	02/27/2026 12:43	R381189

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26020092
Report Date: 27-Mar-26

Carrier: Brett Gillihan

Received By: LEH

Completed by: Laura E Henson
On: 12-Feb-26

Reviewed by: Amber Dilallo
On: 13-Feb-26

Pages to follow: Chain of custody 4 Extra pages included 74

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 5.4
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #104524. -DM/ lhenson - 2/12/2026 11:12:14 AM

Additional nitric acid (109168) was needed for AW-1 upon arrival at the laboratory. - DM/lhenson - 2/12/2026 11:12:23 AM

Additional cooler temperatures: 10.0C, 7.8C, 3C LTG#9. LH 2/12/26.

Samples were received on 2/12/26 at 1326 on ice [temp10.4C, 8.0C, 6.6C - LTG#9]. pH#104524 -DM/lhenson - 2/13/2026 8:29:59 AM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 26020092

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

5.4/10.0

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 7.8/3.4 °C 9
Preserved in: [X] LAB [X] FIELD Am
FOR LAB USE ONLY
LAB NOTES: PH - 104524, Added HNO3 (109168) to AW-1 (1:1+w)

Client Comments: Am - 2-12-26
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME: Justin Culp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	CL F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26020092-001	RW-3		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
002	AP-1		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
003	AP-2		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
004	AP-3		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
005	AP-4	2-11 / 1421	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
006	AP-5	2-11 / 1344	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
007	AP-6		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
008	AP-7	2-11 / 1237	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
009	AP-8		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
010	AP-9	2-11 / 1032	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
011	AP10		Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	2-11-26 1646		2/11/26 1646

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 26020092

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Cdp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26020092-012	AP11	2-11 954	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
013	AP12	2-11 1111	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
014	AP13	2-11 1151	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
015	AP14		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
016	T-01	2-11 1241	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
017	T-02	2-11 1032	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
018	T-04	2-11 / 951	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
019	T-05	2-11 / 1126	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
020	T-06	2-11 / 1202	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
021	AW-1	2-11 1252	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
022	G120		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	2-11 2-11-26 1646		

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 26020092

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 8.0/6.6 °C 10.4 9
Preserved in: ☐ LAB ☒ FIELD FOR LAB USE ONLY
LAB NOTES: PH; 104524 Ini 2-16-26

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Brett Gillihan

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26020092-001	RW-3	2-12-26 1028	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
002	AP-1	2-12-26 1030	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
003	AP-2	2-12-26 1106	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
004	AP-3	2-12-26 1015	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
006	AP-5		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
007	AP-6	2-12-26 947	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
008	AP-7		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
009	AP-8	2-12-26 1128	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
010	AP-9		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
011	AP10	2-12-26 1053	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	2/12/26 1326		2/12/26 1326

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 26020092

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Cdp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26020092-012	AP11		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
013	AP12		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
014	AP13		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
015	AP14	2-12-26 941	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
016	T-01		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
017	T-02		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
018	T-04		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
019	T-05		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
020	T-06		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
021	AW-1		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
022	G120	2-12-26 1113	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	2/12/26 1326		2/12/26 1326

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Alliance Technical Group - Akron
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Website: http://www.settek.com

March 26, 2026

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 26020092

Dear Shelly Hennessy:

Order No.: 26021092

Alliance Technical Group - Akron received 22 sample(s) on 2/16/2026 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0828, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **26021092**
Date: **3/26/2026**

CLIENT: TEKLAB Inc,
Project: 26020092

WorkOrder Narrative:
26021092: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Alliance Technical Group - Akron
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Website: http://www.settek.com

Qualifiers and Acronyms

WO#: **26021092**
Date: **3/26/2026**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Alliance Technical Group - Akron
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Workorder Sample Summary

WO#: **26021092**

26-Mar-26

CLIENT: TEKLAB Inc,
Project: 26020092

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
26021092-001	26020092-001		2/12/2026 10:28:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-002	26020092-002		2/12/2026 10:30:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-003	26020092-003		2/12/2026 11:06:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-004	26020092-004		2/12/2026 10:15:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-005	26020092-005		2/11/2026 2:21:00 PM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-006	26020092-006		2/11/2026 1:44:00 PM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-007	26020092-007		2/12/2026 9:47:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-008	26020092-008		2/11/2026 12:37:00 PM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-009	26020092-009		2/12/2026 11:28:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-010	26020092-010		2/11/2026 10:32:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-011	26020092-011		2/12/2026 10:53:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-012	26020092-012		2/11/2026 9:54:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-013	26020092-013		2/11/2026 11:11:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-014	26020092-014		2/11/2026 11:51:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-015	26020092-015		2/12/2026 9:41:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-016	26020092-016		2/11/2026 12:41:00 PM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-017	26020092-017		2/11/2026 10:32:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-018	26020092-018		2/11/2026 9:51:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-019	26020092-019		2/11/2026 11:26:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-020	26020092-020		2/11/2026 12:02:00 PM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-021	26020092-021		2/11/2026 12:52:00 PM	2/16/2026 1:00:00 PM	Non-Potable Water
26021092-022	26020092-022		2/12/2026 11:13:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water

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DATES REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26021092-001A	26020092-001	2/12/2026 10:28:00 AM	Non-Potable Water	Radium-226 (903.0)		2/18/2026 7:20:00 AM	2/24/2026 10:44:47 AM
				Radium-226/228 (903.0/904.0)		2/18/2026 7:20:00 AM	2/24/2026 10:44:47 AM
				Radium-228 (904.0)		2/18/2026 7:20:00 AM	2/23/2026 12:19:42 PM
26021092-002A	26020092-002	2/12/2026 10:30:00 AM		Radium-226 (903.0)		2/18/2026 7:20:00 AM	2/24/2026 10:44:47 AM
				Radium-226 (903.0)		3/2/2026 8:00:00 AM	3/6/2026 7:23:17 AM
				Radium-226/228 (903.0/904.0)		2/18/2026 7:20:00 AM	2/24/2026 10:44:47 AM
				Radium-228 (904.0)		3/2/2026 8:00:00 AM	3/5/2026 1:09:11 PM
				Radium-228 (904.0)		2/18/2026 7:20:00 AM	2/23/2026 12:19:42 PM
26021092-003A	26020092-003	2/12/2026 11:06:00 AM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		3/3/2026 9:00:00 AM	3/11/2026 7:43:21 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
				Radium-228 (904.0)		3/3/2026 9:00:00 AM	3/9/2026 1:01:32 PM
26021092-004A	26020092-004	2/12/2026 10:15:00 AM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021092-005A	26020092-005	2/11/2026 2:21:00 PM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021092-006A	26020092-006	2/11/2026 1:44:00 PM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021092-007A	26020092-007	2/12/2026 9:47:00 AM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM

Original

Alliance Technical Group - Akron
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DATES REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26021092-007A	26020092-007	2/12/2026 9:47:00 AM	Non-Potable Water	Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021092-008A	26020092-008	2/11/2026 12:37:00 PM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021092-009A	26020092-009	2/12/2026 11:28:00 AM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021092-010A	26020092-010	2/11/2026 10:32:00 AM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021092-011A	26020092-011	2/12/2026 10:53:00 AM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		3/3/2026 9:00:00 AM	3/11/2026 7:43:21 AM
				Radium-228 (904.0)		3/3/2026 9:00:00 AM	3/9/2026 1:01:32 PM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021092-012A	26020092-012	2/11/2026 9:54:00 AM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021092-013A	26020092-013	2/11/2026 11:11:00 AM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021092-014A	26020092-014	2/11/2026 11:51:00 AM		Radium-226 (903.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-228 (904.0)		2/19/2026 11:41:00 AM	2/27/2026 12:43:09 PM

Original

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DATES REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26021092-015A	26020092-015	2/12/2026 9:41:00 AM	Non-Potable Water	Radium-226 (903.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-228 (904.0)		2/19/2026 11:41:00 AM	2/27/2026 12:43:09 PM
26021092-016A	26020092-016	2/11/2026 12:41:00 PM		Radium-226 (903.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-228 (904.0)		2/19/2026 11:41:00 AM	2/27/2026 12:43:09 PM
26021092-017A	26020092-017	2/11/2026 10:32:00 AM		Radium-226 (903.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-228 (904.0)		2/19/2026 11:41:00 AM	2/27/2026 12:43:09 PM
26021092-018A	26020092-018	2/11/2026 9:51:00 AM		Radium-226 (903.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-228 (904.0)		2/19/2026 11:41:00 AM	2/27/2026 12:43:09 PM
26021092-019A	26020092-019	2/11/2026 11:26:00 AM		Radium-226 (903.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-228 (904.0)		2/19/2026 11:41:00 AM	2/27/2026 12:43:09 PM
26021092-020A	26020092-020	2/11/2026 12:02:00 PM		Radium-226 (903.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-228 (904.0)		2/19/2026 11:41:00 AM	2/27/2026 12:43:09 PM
26021092-021A	26020092-021	2/11/2026 12:52:00 PM		Radium-226 (903.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-228 (904.0)		2/19/2026 11:41:00 AM	2/27/2026 12:43:09 PM
26021092-022A	26020092-022	2/12/2026 11:13:00 AM		Radium-226 (903.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 11:41:00 AM	3/2/2026 7:52:36 AM

Original

Alliance Technical Group - Akron
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Website: http://www.settek.com

DATES REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26021092-022A	26020092-022	2/12/2026 11:13:00 AM	Non-Potable Water	Radium-228 (904.0)		2/19/2026 11:41:00 AM	2/27/2026 12:43:09 PM

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/12/2026 10:28:00 AM

Project: 26020092

Lab ID: 26021092-001

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.500	1	2/24/2026 10:44:47 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	2/24/2026 10:44:47 AM
Yield	1.00					1	2/24/2026 10:44:47 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.420	1	2/23/2026 12:19:42 PM
Yield	1.00					1	2/23/2026 12:19:42 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,
Collection Date: 2/12/2026 10:30:00 AM
Project: 26020092
Lab ID: 26021092-002
Matrix: NON-POTABLE WATER
Client Sample ID: 26020092-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)					**MBDRA226RA22**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.620	1	2/24/2026 10:44:47 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00	QDR	pCi/L	± 0.140	1	2/24/2026 10:44:47 AM
Yield	0.990					1	2/24/2026 10:44:47 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00	QDR	pCi/L	± 0.480	1	2/23/2026 12:19:42 PM
Yield	0.950					1	2/23/2026 12:19:42 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
3310 Win St.
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,
Project: 26020092
Lab ID: 26021092-003
Client Sample ID: 26020092-003

Collection Date: 2/12/2026 11:06:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.650	1	3/11/2026 7:43:21 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)				**E903.0**	**E903-904**		Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.100	1	2/27/2026 7:28:00 AM
Yield	0.950					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)				**E904.0**	**E903-904**		Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.550	1	3/9/2026 1:01:32 PM
Yield	0.670					1	3/9/2026 1:01:32 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/12/2026 10:15:00 AM

Project: 26020092

Lab ID: 26021092-004

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **TAL**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.760	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	2/27/2026 7:28:00 AM
Yield	1.00					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	1.12	1.00		pCi/L	± 0.680	1	2/26/2026 1:46:00 PM
Yield	1.00					1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Alliance Technical Group - Akron
3310 Win St.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/11/2026 2:21:00 PM

Project: 26020092

Lab ID: 26021092-005

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-005

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **TAL**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.770	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	2/27/2026 7:28:00 AM
Yield	0.990					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.690	1	2/26/2026 1:46:00 PM
Yield	1.00					1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/11/2026 1:44:00 PM

Project: 26020092

Lab ID: 26021092-006

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-006

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **TAL**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.700	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	2/27/2026 7:28:00 AM
Yield	1.00					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.620	1	2/26/2026 1:46:00 PM
Yield	1.00					1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/12/2026 9:47:00 AM

Project: 26020092

Lab ID: 26021092-007

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-007

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **TAL**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.810	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	2/27/2026 7:28:00 AM
Yield	1.00					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	1.55	1.00		pCi/L	± 0.740	1	2/26/2026 1:46:00 PM
Yield	1.00					1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,
Project: 26020092
Lab ID: 26021092-008
Client Sample ID: 26020092-008

Collection Date: 2/11/2026 12:37:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **TAL**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.700	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	2/27/2026 7:28:00 AM
Yield	1.00					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.620	1	2/26/2026 1:46:00 PM
Yield	1.00					1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/12/2026 11:28:00 AM

Project: 26020092

Lab ID: 26021092-009

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **TAL**
Radium-226/Radium-228 Combined	2.25	2.00		pCi/L	± 0.990	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	1.00	1.00		pCi/L	± 0.160	1	2/27/2026 7:28:00 AM
Yield	1.00					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	1.25	1.00		pCi/L	± 0.830	1	2/26/2026 1:46:00 PM
Yield	1.00					1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/11/2026 10:32:00 AM

Project: 26020092

Lab ID: 26021092-010

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-010

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **TAL**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 1.03	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.120	1	2/27/2026 7:28:00 AM
Yield	0.960					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	1.22	1.00		pCi/L	± 0.910	1	2/26/2026 1:46:00 PM
Yield	0.850					1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/12/2026 10:53:00 AM

Project: 26020092

Lab ID: 26021092-011

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-011

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)					**MBDRA226RA22**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228 Combined	2.99	2.00		pCi/L	± 0.750	1	3/11/2026 7:43:21 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.170	1	2/27/2026 7:28:00 AM
Yield	0.890					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	2.01	1.00		pCi/L	± 0.580	1	3/9/2026 1:01:32 PM
Yield	1.00					1	3/9/2026 1:01:32 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,
Project: 26020092
Lab ID: 26021092-012
Client Sample ID: 26020092-012

Collection Date: 2/11/2026 9:54:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **TAL**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.870	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	2/27/2026 7:28:00 AM
Yield	0.950					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	1.42	1.00		pCi/L	± 0.800	1	2/26/2026 1:46:00 PM
Yield	1.00					1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,
Project: 26020092
Lab ID: 26021092-013
Client Sample ID: 26020092-013

Collection Date: 2/11/2026 11:11:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **TAL**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.630	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	2/27/2026 7:28:00 AM
Yield	1.00					1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.560	1	2/26/2026 1:46:00 PM
Yield	1.00					1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/11/2026 11:51:00 AM

Project: 26020092

Lab ID: 26021092-014

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-014

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)					**MBDRA226RA22**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.430	1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	3/2/2026 7:52:36 AM
Yield	0.880					1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.350	1	2/27/2026 12:43:09 PM
Yield	0.860					1	2/27/2026 12:43:09 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/12/2026 9:41:00 AM

Project: 26020092

Lab ID: 26021092-015

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-015

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.650	1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.100	1	3/2/2026 7:52:36 AM
Yield	0.910					1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	1.10	1.00		pCi/L	± 0.550	1	2/27/2026 12:43:09 PM
Yield	0.900					1	2/27/2026 12:43:09 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/11/2026 12:41:00 PM

Project: 26020092

Lab ID: 26021092-016

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-016

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.370	1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	3/2/2026 7:52:36 AM
Yield	0.980					1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.310	1	2/27/2026 12:43:09 PM
Yield	0.920					1	2/27/2026 12:43:09 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
3310 Win St.
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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,
Collection Date: 2/11/2026 10:32:00 AM
Project: 26020092
Lab ID: 26021092-017
Matrix: NON-POTABLE WATER
Client Sample ID: 26020092-017

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)					**MBDRA226RA22**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.500	1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.110	1	3/2/2026 7:52:36 AM
Yield	0.980					1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.390	1	2/27/2026 12:43:09 PM
Yield	0.930					1	2/27/2026 12:43:09 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Alliance Technical Group - Akron
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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/11/2026 9:51:00 AM

Project: 26020092

Lab ID: 26021092-018

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-018

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.450	1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0900	1	3/2/2026 7:52:36 AM
Yield	0.980					1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.360	1	2/27/2026 12:43:09 PM
Yield	0.960					1	2/27/2026 12:43:09 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/11/2026 11:26:00 AM

Project: 26020092

Lab ID: 26021092-019

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-019

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.630	1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0900	1	3/2/2026 7:52:36 AM
Yield	0.890					1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.540	1	2/27/2026 12:43:09 PM
Yield	0.840					1	2/27/2026 12:43:09 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/11/2026 12:02:00 PM

Project: 26020092

Lab ID: 26021092-020

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-020

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.630	1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	1.13	1.00		pCi/L	± 0.150	1	3/2/2026 7:52:36 AM
Yield	1.00					1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.480	1	2/27/2026 12:43:09 PM
Yield	0.980					1	2/27/2026 12:43:09 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,

Collection Date: 2/11/2026 12:52:00 PM

Project: 26020092

Lab ID: 26021092-021

Matrix: NON-POTABLE WATER

Client Sample ID: 26020092-021

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)				**MBDRA226RA22**	**E903-904**		Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.520	1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	3/2/2026 7:52:36 AM
Yield	0.930					1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.440	1	2/27/2026 12:43:09 PM
Yield	0.900					1	2/27/2026 12:43:09 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26021092**

Date Reported: **3/26/2026**

CLIENT: TEKLAB Inc,
Project: 26020092
Lab ID: 26021092-022
Client Sample ID: 26020092-022

Collection Date: 2/12/2026 11:13:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)					**MBDRA226RA22**	**E903-904**	Analyst: **KM**
Radium-226/Radium-228 Combined	ND	2.00		pCi/L	± 0.520	1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **KM**
Radium-226	ND	1.00		pCi/L	± 0.110	1	3/2/2026 7:52:36 AM
Yield	0.990					1	3/2/2026 7:52:36 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **KM**
Radium-228	ND	1.00		pCi/L	± 0.410	1	2/27/2026 12:43:09 PM
Yield	0.960					1	2/27/2026 12:43:09 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**
26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93281**

Sample ID: **26021234-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **230095**
Client ID: **BatchQC** Batch ID: **93281** TestNo: **E904.0** **E903-904** Analysis Date: **2/27/2026** SeqNo: **6067708**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			0.9700	3.05		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93281**

Sample ID: **MB-93281** SampType: **MBLK** TestCode: **RADIUM-228_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **230095**
Client ID: **BatchQC** Batch ID: **93281** TestNo: **E904.0** **E903-904** Analysis Date: **2/27/2026** SeqNo: **6067683**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.920			0	0						

Sample ID: **LCS-93281** SampType: **LCS** TestCode: **RADIUM-228_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **230095**
Client ID: **BatchQC** Batch ID: **93281** TestNo: **E904.0** **E903-904** Analysis Date: **2/27/2026** SeqNo: **6067684**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.89	1.00	5.000	0	97.8	50	130				QLR
Yield	0.970			0	0						

Sample ID: **LCSD-93281** SampType: **LCSD** TestCode: **RADIUM-228_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **230095**
Client ID: **BatchQC** Batch ID: **93281** TestNo: **E904.0** **E903-904** Analysis Date: **2/27/2026** SeqNo: **6067685**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.00	1.00	5.000	0	60.0	50	130	4.890	47.9	20	R
Yield	0.880			0	0			0.9700	9.73		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Cuyahoga Falls, Ohio 44223
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QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93281**

Sample ID: **26021177-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **230095**
Client ID: **BatchQC** Batch ID: **93281** TestNo: **E904.0** **E903-904** Analysis Date: **2/27/2026** SeqNo: **6067706**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	0.970			0	0			0.9600	1.04		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93281**

Sample ID: **26021234-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **230114**
Client ID: **BatchQC** Batch ID: **93281** TestNo: **E903.0** **E903-904** Analysis Date: **3/2/2026** SeqNo: **6068141**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.990							0.9700	2.04	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
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TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**
26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93281**

Sample ID: **MB-93281**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **230114**
Client ID: **BatchQC**	Batch ID: **93281**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/2/2026**	SeqNo: **6068123**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.920										

Sample ID: **LCS-93281**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **230114**
Client ID: **BatchQC**	Batch ID: **93281**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/2/2026**	SeqNo: **6068124**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.58	1.00	5.000	0	91.6	70	130				

Sample ID: **LCSD-93281**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **230114**
Client ID: **BatchQC**	Batch ID: **93281**	TestNo: **E903.0**	**E903-904**	Analysis Date: **3/2/2026**	SeqNo: **6068125**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.86	1.00	5.000	0	97.2	70	130	4.580	5.93	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
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TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93295**

Sample ID: **MB-93295** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **229951**
Client ID: **BatchQC** Batch ID: **93295** TestNo: **E904.0** **E903-904** Analysis Date: **2/26/2026** SeqNo: **6065009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-93295** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **229951**
Client ID: **BatchQC** Batch ID: **93295** TestNo: **E904.0** **E903-904** Analysis Date: **2/26/2026** SeqNo: **6065010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.83	1.00	5.000	0	56.6	50	130				QLR
Yield	0.810			0	0						

Sample ID: **LCSD-93295** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **229951**
Client ID: **BatchQC** Batch ID: **93295** TestNo: **E904.0** **E903-904** Analysis Date: **2/26/2026** SeqNo: **6065011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.69	1.00	5.000	0	73.8	50	130	2.830	26.4	20	R
Yield	1.00			0	0			0.8100	21.0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93295**

Sample ID: **26021092-004ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **229951**
Client ID: **26020092-004** Batch ID: **93295** TestNo: **E904.0** **E903-904** Analysis Date: **2/26/2026** SeqNo: **6065027**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.16	1.00		0	0			1.120	3.51	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93295**

Sample ID: **MB-93295**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229968**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/27/2026**	SeqNo: **6065175**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-93295**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229968**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/27/2026**	SeqNo: **6065176**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.58	1.00	5.000	0	91.6	70	130				

Sample ID: **LCSD-93295**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229968**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/27/2026**	SeqNo: **6065177**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.12	1.00	5.000	0	82.4	70	130	4.580	10.6	20	

Sample ID: **26021092-003ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229968**
Client ID: **26020092-003**	Batch ID: **93295**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/27/2026**	SeqNo: **6065191**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**
26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93295**

Sample ID: **26021092-003ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **229968**
Client ID: **26020092-003** Batch ID: **93295** TestNo: **E903.0** **E903-904** Analysis Date: **2/27/2026** SeqNo: **6065191**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	0.980							0.9500	3.11	0	

Sample ID: **26021092-004ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **229968**
Client ID: **26020092-004** Batch ID: **93295** TestNo: **E903.0** **E903-904** Analysis Date: **2/27/2026** SeqNo: **6065193**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	0.990							1.000	1.01	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93324**

Sample ID: **MB-93324**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/18/2026**	RunNo: **229759**
Client ID: **BatchQC**	Batch ID: **93324**	TestNo: **E904.0**	**E903-904**	Analysis Date: **2/23/2026**	SeqNo: **6059860**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.980			0	0						

Sample ID: **LCS-93324**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/18/2026**	RunNo: **229759**
Client ID: **BatchQC**	Batch ID: **93324**	TestNo: **E904.0**	**E903-904**	Analysis Date: **2/23/2026**	SeqNo: **6059861**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.29	1.00	5.000	0	106	50	130				QLR
Yield	0.880			0	0						

Sample ID: **LCSD-93324**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/18/2026**	RunNo: **229759**
Client ID: **BatchQC**	Batch ID: **93324**	TestNo: **E904.0**	**E903-904**	Analysis Date: **2/23/2026**	SeqNo: **6059862**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.52	1.00	5.000	0	70.4	50	130	5.290	40.2	20	R
Yield	0.990			0	0			0.8800	11.8		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93324**

Sample ID: **26021092-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/18/2026** RunNo: **229759**
Client ID: **26020092-001** Batch ID: **93324** TestNo: **E904.0** **E903-904** Analysis Date: **2/23/2026** SeqNo: **6059880**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Sample ID: **26021092-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **2/18/2026** RunNo: **229759**
Client ID: **26020092-002** Batch ID: **93324** TestNo: **E904.0** **E903-904** Analysis Date: **2/23/2026** SeqNo: **6059882**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			0.9500	5.13		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93324**

Sample ID: **MB-93324**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/18/2026**	RunNo: **229764**
Client ID: **BatchQC**	Batch ID: **93324**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/24/2026**	SeqNo: **6059943**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-93324**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/18/2026**	RunNo: **229764**
Client ID: **BatchQC**	Batch ID: **93324**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/24/2026**	SeqNo: **6059944**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.70	1.00	5.000	0	114	70	130				

Sample ID: **LCSD-93324**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/18/2026**	RunNo: **229764**
Client ID: **BatchQC**	Batch ID: **93324**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/24/2026**	SeqNo: **6059945**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.75	1.00	5.000	0	95.0	70	130	5.700	18.2	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**
26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93324**

Sample ID: **26021092-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/18/2026** RunNo: **229764**
Client ID: **26020092-001** Batch ID: **93324** TestNo: **E903.0** **E903-904** Analysis Date: **2/24/2026** SeqNo: **6059955**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	0.980							1.000	2.02	0	

Sample ID: **26021092-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/18/2026** RunNo: **229764**
Client ID: **26020092-002** Batch ID: **93324** TestNo: **E903.0** **E903-904** Analysis Date: **2/24/2026** SeqNo: **6059957**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	R
Yield	1.00							0.9900	1.01	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93324**

Sample ID: **26021092-001ADUP** SampType: **DUP** TestCode: **Ra-Combined** Units: **pCi/L** Prep Date: **2/18/2026** RunNo: **229764**
Client ID: **26020092-001** Batch ID: **93324** TestNo: **CmbdRa226R E903-904** Analysis Date: **2/24/2026** SeqNo: **6059960**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226/Radium-228 Combined	ND	2.00		0	0			0	0	20	

Sample ID: **26021092-002ADUP** SampType: **DUP** TestCode: **Ra-Combined** Units: **pCi/L** Prep Date: **2/18/2026** RunNo: **229764**
Client ID: **26020092-002** Batch ID: **93324** TestNo: **CmbdRa226R E903-904** Analysis Date: **2/24/2026** SeqNo: **6059962**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226/Radium-228 Combined	ND	2.00		0	0			0	0	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**
26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93578**

Sample ID: **MB-93578**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **3/3/2026**	RunNo: **230877**
Client ID: **BatchQC**	Batch ID: **93578**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/9/2026**	SeqNo: **6086923**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-93578**	SampType: **LCS**	TestCode: **RADIUM-228_**	Units: **pCi/L**	Prep Date: **3/3/2026**	RunNo: **230877**
Client ID: **BatchQC**	Batch ID: **93578**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/9/2026**	SeqNo: **6086924**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.79	1.00	5.000	0	95.8	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-93578**	SampType: **LCSD**	TestCode: **RADIUM-228_**	Units: **pCi/L**	Prep Date: **3/3/2026**	RunNo: **230877**
Client ID: **BatchQC**	Batch ID: **93578**	TestNo: **E904.0**	**E903-904**	Analysis Date: **3/9/2026**	SeqNo: **6086925**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.57	1.00	5.000	0	71.4	50	130	4.790	29.2	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021092**

26-Mar-26

Client: TEKLAB Inc,
Project: 26020092 **BatchID:** **93578**

Sample ID: **26021917-010ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/3/2026** RunNo: **230877**
Client ID: **BatchQC** Batch ID: **93578** TestNo: **E904.0** **E903-904** Analysis Date: **3/9/2026** SeqNo: **6086946**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.41	1.00		0	0			0.6900	68.6	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **26021917-011ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **3/3/2026** RunNo: **230877**
Client ID: **BatchQC** Batch ID: **93578** TestNo: **E904.0** **E903-904** Analysis Date: **3/9/2026** SeqNo: **6086949**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.17	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Pg ___ of ___

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

26021092

Are the samples chilled? YES ☑ NO ☐ With: ☑ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: | Sampler: teklab employee | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per your usual methods.
State of Sample Origin = IL
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.

Project# 26020092

Contact: Shelly Hennessy | Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT | Billing/PO: 40450 | Phone: (618) 344-1004 x1024

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Radium 226	Radium 228	CPM
pH<2,2,2	26020092-001	2/12/26 1028	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	55.50,40
pH<2,2,2	26020092-002	2/12/26 1030	☐	☐	☐	☐	☐	Groundwater	✔	✔	✔	30,30,32
pH<2,2,2	26020092-003	2/12/26 1106	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	24,26,22
pH<2,2,2	26020092-004	2/12/26 1015	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	32,34,30
pH<2,2,2	26020092-005	2/11/26 1421	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	42,40,44
pH<2,2,2	26020092-006	2/11/26 1344	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	42,36,38
pH<2,2,2	26020092-007	2/12/26 947	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	42,42,44
pH<2,2,2	26020092-008	2/11/26 1237	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	46,40,44
pH<2,2,2	26020092-009	2/12/26 1128	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	50,52,46
pH<2,2,2	26020092-010	2/11/26 1032	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	50,46,42
pH<2,2,2	26020092-011	2/12/26 1053	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	52,56,58

*Relinquished By	Date/Time	Received By	Date/Time
	2/13/26 1000	2/16/26	C.S. intact
		Fax 1300	2/13
		21.8+6.0=21.8	

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevB
1/12/2026

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Are the samples chilled? YES ☑ NO ☐ With: ☑ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: | Sampler: teklab employee | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per your usual methods.
State of Sample Origin = IL
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.

Project# 26020092

Contact: Shelly Hennessy | Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT | Billing/PO: 40450 | Phone: (618) 344-1004 x 1024

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Radium 226	Radium 228	CDM:
pHc2,2,2	26020092-012	2/11/26 954	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	30, 38, 32
pHc2,2,2	26020092-013	2/11/26 1111	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	36, 28, 30
pHc2,2,2	26020092-014	2/11/26 1151	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	40, 40, 46
pHc2,2,2	26020092-015	2/12/26 941	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	28, 26, 24
pHc2,2,2	26020092-016	2/11/26 1241	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	26, 32, 30
pHc2,2,2	26020092-017	2/11/26 1032	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	28, 30, 40
pHc2,2,2	26020092-018	2/11/26 9.51	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	30, 30, 32
pHc2,2,2	26020092-019	2/11/26 1126	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	22, 24, 20
pHc2,2,2	26020092-020	2/11/26 1202	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	20, 28, 26
pHc2,2,2	26020092-021	2/11/26 1252	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	30, 36, 38
pHc2,2,2	26020092-022	2/12/26 1113	☐	☑	☐	☐	☐	Groundwater	✔	✔	✔	40, 38, 38

*Relinquished By	Date/Time	Received By	Date/Time
	2/13/26 1700		

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state, federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevB
1/12/2026

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **26021092** RcptNo: **1**

Logged by:	**Spencer M. Hartwell**	**2/16/2026 1:00:00 PM**	Spencer M. Hartwell
Completed By:	**Spencer M. Hartwell**	**2/16/2026 3:10:01 PM**	Spencer M. Hartwell
Reviewed By:	**Jennifer Woolf**	**2/23/2026 2:16:09 PM**	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐ NA ☐
   No. Seal Date: 2/13/2026 Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	21.8	Good	Yes		2/13/2026	

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 26020092
Monitoring Point: RW-3
Sample ID: 001
Date (s): 2/12/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 40 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/12/26 10:08 AM
Static Water Level: 12.85 feet below TOC
Total Depth: 44.01 feet below TOC
Water Column: 31.16 feet

Purging Activities

Purged By: AL Purge Date: 2/12/2026
Purge Method: Bladder Pump Well Diameter: 2"
Purge Volume Calculation (L): 31.16 ft. x 0.022 = 0.69 L x 3 Vol. = 2.07 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Clear Odor: Moderate Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:08	0.0	200	purge start time						
10:19	2.2	↓	7.19	791.20	12.51	0.76	-127.40	3.86	
10:22	2.8		7.18	792.00	12.55	0.68	-131.80	2.85	
10:25	3.4		7.18	792.60	12.56	0.62	-134.30	3.10	
10:28	4.0		7.18	792.60	12.59	0.57	-135.90	5.43	

Sampling Activities

Sampled By: DN Sample Date/Time: 2/12/2026 10:28
Sample Method: Low Flow Sample Equipment: Bladder Pump
Sample Parameters: 7.18 pH 792.60 Spec. Cond. 12.59 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 14.31 feet below TOC Drawdown: 1.46 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 218076

Form Completed By: A Nieters **Date:** 2/12/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-1
Project Location:	Springfield, IL	**Sample ID:**	002
W.O. Number (s):	26020092	**Date (s):**	2/12/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 40 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing		X
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Yes				

Groundwater Level Measurements

Date/Time Measured: 2/12/26 10:05 AM

Static Water Level: 11.05 feet below TOC

Total Depth: 31.08 feet below TOC

Water Column: 20.03 feet

Purging Activities

Purged By: DC Purge Date: 2/12/2026

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 20.03 ft. x 0.022 = 0.44 L x 3 Vol. = 1.32 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:05	0.0	160	purge start time						
10:18	2.1	↓	6.67	1,669.20	13.03	0.85	-84.00	13.70	
10:21	2.6		6.67	1,688.60	13.02	0.78	-87.60	10.12	
10:24	3.0		6.67	1,718.90	13.02	0.73	-90.00	8.51	
10:27	3.5		6.67	1,738.80	13.03	0.70	-91.60	5.20	
10:30	4.0		6.67	1,752.80	13.01	0.66	-92.80	4.25	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/12/2026 10:30

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.67 pH 1,752.80 Spec. Cond. 13.01 Temp

Field Filtered: No Filter Type:

Water Level: 11.85 feet below TOC Drawdown: 0.80 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Brett Gillihan **Date:** 2/12/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-2
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	26020092	**Date (s):**	2/12/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 41 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☐ None ☑ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/12/26 10:40 AM

Static Water Level: 8.93 feet below TOC

Total Depth: 21.33 feet below TOC

Water Column: 12.40 feet

Purging Activities

Purged By: DC Purge Date: 2/12/2026

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 12.4 ft. x 0.022 = 0.27 L x 3 Vol. = 0.81 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:40	0.0	154	purge start time						
10:54	2.2	↓	6.60	1,298.20	12.22	0.94	7.10	38.55	
10:57	2.6		6.60	1,299.80	12.17	0.87	10.00	25.86	
11:00	3.1		6.60	1,299.30	12.13	0.83	12.20	18.90	
11:03	3.5		6.59	1,300.80	12.23	0.79	13.80	13.49	
11:06	4.0		6.59	1,301.60	12.27	0.76	15.30	8.56	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/12/2026 11:06

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.59 pH 1,301.60 Spec. Cond. 12.27 Temp

Field Filtered: No Filter Type:

Water Level: 9.59 feet below TOC Drawdown: 0.66 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Brett Gillihan **Date:** 2/12/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-3
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	26020092	**Date (s):**	2/12/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 41 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing		X
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Yes				

Groundwater Level Measurements

Date/Time Measured: 2/12/26 9:56 AM

Static Water Level: 9.98 feet below TOC

Total Depth: 20.80 feet below TOC

Water Column: 10.82 feet

Purging Activities

Purged By: JC Purge Date: 2/12/2026

Purge Method: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 10.82 ft. x 0.022 = 0.24 L x 3 Vol. = 0.72 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: lt brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:57	0.0	222	purge start time						
10:03	1.3	↓	6.67	1,325.00	11.98	3.89	-105.40	35.90	
10:06	2.0		6.63	1,331.40	12.17	2.85	-101.40	40.29	
10:09	2.7		6.62	1,326.60	12.17	2.36	-100.50	33.36	
10:12	3.3		6.62	1,321.30	12.73	2.22	-98.30	35.50	
10:15	4.0		6.62	1,315.90	12.06	2.29	-94.60	36.37	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/12/2026 10:15

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.62 pH 1,315.90 Spec. Cond. 12.06 Temp

Field Filtered: No Filter Type:

Water Level: 10.36 feet below TOC Drawdown: 0.38 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp **Date:** 2/12/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-4
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 46 °F — Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/11/26 1:59 PM

Static Water Level: 12.94 feet below TOC

Total Depth: 60.41 feet below TOC

Water Column: 47.47 feet

Purging Activities

Purged By: JC — Purge Date: 2/11/2026

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 47.47 ft. x 0.022 = 1.04 L x 3 Vol. = 3.12 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
14:00	0.0	238	purge start time						
14:06	1.4	↓	7.33	672.80	16.02	5.47	43.50	2.35	
14:09	2.1		7.31	673.40	15.98	4.86	46.00	2.24	
14:12	2.9		7.30	673.30	15.90	4.57	47.70	2.63	
14:15	3.6		7.29	673.50	15.98	4.39	49.20	2.99	
14:18	4.3		7.28	673.70	15.97	4.25	50.80	3.97	
14:21	5.0		7.27	674.10	15.95	4.16	52.00	3.04	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/11/2026 14:21

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 7.27 pH — 674.10 Spec. Cond. — 15.95 Temp

Field Filtered: No — Filter Type:

Water Level: 12.94 feet below TOC — Drawdown: 0.00 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp — **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-5
Project Location:	Springfield, IL	**Sample ID:**	006
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 46 °F — Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/11/26 1:04 PM

Static Water Level: 19.22 feet below TOC

Total Depth: 31.27 feet below TOC

Water Column: 12.05 feet

Purging Activities

Purged By: JC — Purge Date: 2/11/2026

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 12.05 ft. x 0.022 = 0.27 L x 3 Vol. = 0.81 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.50 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:05	0.0	192	purge start time						
13:11	1.2	↓	6.92	717.20	13.52	4.53	20.50	10.39	
13:14	1.7		6.89	733.50	12.93	3.76	24.50	7.54	
13:17	2.3		6.87	736.00	12.69	3.11	26.90	7.13	
13:20	2.9		6.86	735.70	12.77	2.67	29.10	5.36	
13:23	3.5		6.86	736.90	12.67	2.41	31.00	4.05	
13:26	4.0		6.86	738.00	12.59	2.22	32.90	3.64	
13:29	4.6		6.86	731.90	12.86	2.06	34.20	3.17	
13:32	5.2		6.86	739.70	13.44	1.94	34.70	2.26	
13:35	5.8		6.86	740.40	13.83	1.85	35.30	2.14	
13:38	6.3		6.87	741.80	14.43	1.78	35.70	1.61	
13:41	6.9		6.87	743.40	14.73	1.72	36.30	1.35	
13:44	7.5		6.87	745.10	14.81	1.68	36.90	0.77	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/11/2026 13:44

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.87 pH — 745.10 Spec. Cond. — 14.81 Temp

Field Filtered: No — Filter Type:

Water Level: 20.09 feet below TOC — Drawdown: 0.87 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp — **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-6
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	26020092	**Date (s):**	2/12/2026

Field Team Members

Name: Allison Lampe — Affiliation: TekLab, Inc.

Name: Drew Nieters — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 40 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/12/26 9:24 AM

Static Water Level: 11.29 feet below TOC

Total Depth: 39.62 feet below TOC

Water Column: 28.33 feet

Purging Activities

Purged By: AL — Purge Date: 2/12/2026

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 28.33 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:24	0.0	130	purge start time						
9:38	1.8	↓	7.11	785.10	9.45	3.14	-37.60	10.19	
9:41	2.2		7.11	783.20	8.85	3.28	-44.50	19.78	
9:44	2.6		7.11	779.40	8.51	3.58	-44.40	23.97	
9:47	3.0		7.11	776.90	8.37	3.99	-42.20	23.75	

Sampling Activities

Sampled By: DN — Sample Date/Time: 2/12/2026 9:47

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 7.11 pH — 776.90 Spec. Cond. — 8.37 Temp

Field Filtered: No — Filter Type:

Water Level: 13.13 feet below TOC — Drawdown: 1.84 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 218076

Form Completed By: A Nieters — **Date:** 2/12/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-7
Project Location:	Springfield, IL	**Sample ID:**	008
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 45 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 12:12 PM

Static Water Level: 14.14 feet below TOC

Total Depth: 42.52 feet below TOC

Water Column: 28.38 feet

Purging Activities

Purged By: JC — Purge Date: 2/11/2026

Purge Method: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 28.38 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:13	0.0	208	purge start time						
12:19	1.3	↓	7.19	796.00	12.86	3.80	-63.30	9.62	
12:22	1.9		7.19	798.10	12.90	2.67	-68.50	12.73	
12:25	2.5		7.15	800.50	12.89	2.15	-77.00	10.93	
12:28	3.1		7.14	801.40	12.91	1.84	-84.40	10.09	
12:31	3.8		7.14	802.60	12.89	1.66	-86.20	7.57	
12:34	4.4		7.14	804.70	12.92	1.52	-87.20	7.12	
12:37	5.0		7.13	807.00	12.91	1.44	-88.00	7.75	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/11/2026 12:37

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 7.13 pH — 807.00 Spec. Cond. — 12.91 Temp

Field Filtered: No — Filter Type:

Water Level: 18.62 feet below TOC — Drawdown: 4.48 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp — **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-8
Project Location:	Springfield, IL	**Sample ID:**	009
W.O. Number (s):	26020092	**Date (s):**	2/12/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 41 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/12/26 11:05 AM

Static Water Level: 8.76 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 30.84 feet

Purging Activities

Purged By: JC Purge Date: 2/12/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.84 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:06	0.0	227	purge start time						
11:13	1.6	↓	6.95	856.20	12.72	2.72	-90.00	8.85	
11:16	2.3		6.94	857.30	12.79	2.15	-102.30	6.38	
11:19	3.0		6.93	857.30	12.76	1.85	-108.40	5.05	
11:22	3.6		6.93	856.30	12.71	1.66	-112.10	4.06	
11:25	4.3		6.93	855.10	12.69	1.53	-114.60	4.52	
11:28	5.0		6.93	855.70	12.76	1.43	-116.20	4.42	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/12/2026 11:28

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.93 pH 855.70 Spec. Cond. 12.76 Temp

Field Filtered: No Filter Type:

Water Level: 9.71 feet below TOC Drawdown: 0.95 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp **Date:** 2/12/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-9
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 37 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 10:02 AM

Static Water Level: 14.09 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 25.51 feet

Purging Activities

Purged By: JC Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 25.51 ft. x 0.022 = 0.56 L x 3 Vol. = 1.68 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.50 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:03	0.0	224	purge start time						
10:08	1.1	↓	6.65	1,003.30	12.74	4.55	-94.20	21.01	
10:11	1.8		6.67	1,002.10	12.94	3.24	-100.90	21.17	
10:14	2.5		6.68	1,002.90	13.14	2.63	-104.30	20.21	
10:17	3.1		6.69	1,000.40	13.18	2.29	-105.90	18.71	
10:20	3.8		6.69	999.60	13.17	2.07	-107.20	16.09	
10:23	4.5		6.69	998.60	13.24	1.91	-108.20	15.00	
10:26	5.2		6.70	998.40	13.27	1.79	-108.70	14.66	
10:29	5.8		6.70	999.00	13.29	1.70	-109.00	14.01	
10:32	6.5		6.70	997.70	13.56	1.62	-109.40	12.76	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/11/2026 10:32

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.70 pH 997.70 Spec. Cond. 13.56 Temp

Field Filtered: No Filter Type:

Water Level: 16.19 feet below TOC Drawdown: 2.10 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP10
Project Location:	Springfield, IL	**Sample ID:**	011
W.O. Number (s):	26020092	**Date (s):**	2/12/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 41 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/12/26 10:27 AM

Static Water Level: 7.39 feet below TOC

Total Depth: 38.07 feet below TOC

Water Column: 30.68 feet

Purging Activities

Purged By: JC — Purge Date: 2/12/2026

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 30.68 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:28	0.0	240	purge start time						
10:32	1.0	↓	6.77	1,091.40	12.18	4.23	-59.20	4.08	
10:35	1.7		6.73	1,089.80	12.15	2.91	-74.30	2.50	
10:38	2.4		6.72	1,085.60	11.81	2.47	-80.80	2.20	
10:41	3.1		6.72	1,081.10	11.72	2.22	-84.40	2.67	
10:44	3.8		6.72	1,080.40	11.70	2.04	-86.90	3.13	
10:47	4.6		6.71	1,077.50	11.68	1.89	-88.50	2.37	
10:50	5.3		6.71	1,077.00	11.74	1.77	-89.90	2.33	
10:53	6.0		6.71	1,075.40	11.74	1.68	-90.90	1.73	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/12/2026 10:53

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.71 pH — 1,075.40 Spec. Cond. — 11.74 Temp

Field Filtered: No — Filter Type:

Water Level: 7.91 feet below TOC — Drawdown: 0.52 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp — **Date:** 2/12/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP11
Project Location:	Springfield, IL	**Sample ID:**	012
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 35 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 9:33 AM

Static Water Level: 15.42 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 7.53 feet

Purging Activities

Purged By: DC Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.53 ft. x 0.022 = 0.17 L x 3 Vol. = 0.51 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:33	0.0	190	purge start time						
9:42	1.7	↓	6.49	1,098.20	9.43	2.31	-14.60	17.82	
9:45	2.3		6.48	1,069.80	9.98	1.87	4.30	14.34	
9:48	2.9		6.49	1,076.70	9.70	1.74	12.20	15.05	
9:51	3.4		6.49	1,067.90	9.94	1.60	19.50	10.41	
9:54	4.0		6.49	1,066.10	10.21	1.47	20.60	9.15	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/11/2026 9:54

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.49 pH 1,066.10 Spec. Cond. 10.21 Temp

Field Filtered: No Filter Type:

Water Level: 16.31 feet below TOC Drawdown: 0.89 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Brett Gillihan **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP12
Project Location:	Springfield, IL	**Sample ID:**	013
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 41 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 10:53 AM

Static Water Level: 18.13 feet below TOC

Total Depth: 30.40 feet below TOC

Water Column: 12.27 feet

Purging Activities

Purged By: DC Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 12.27 ft. x 0.022 = 0.27 L x 3 Vol. = 0.81 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:53	0.0	222	purge start time						
10:59	1.3	↓	6.54	1,467.70	11.58	2.04	-59.40	15.38	
11:02	2.0		6.52	1,463.80	11.53	1.62	-55.00	15.55	
11:05	2.7		6.51	1,466.00	11.64	1.36	-53.70	15.06	
11:08	3.3		6.51	1,469.60	11.42	1.23	-52.70	17.26	
11:11	4.0		6.51	1,471.00	11.49	1.15	-54.30	25.36	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/11/2026 11:11

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.51 pH 1,471.00 Spec. Cond. 11.49 Temp

Field Filtered: No Filter Type:

Water Level: 18.83 feet below TOC Drawdown: 0.70 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Brett Gillihan **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP13
Project Location:	Springfield, IL	**Sample ID:**	014
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 43 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 11:31 AM

Static Water Level: 19.77 feet below TOC

Total Depth: 31.00 feet below TOC

Water Column: 11.23 feet

Purging Activities

Purged By: DC Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 11.23 ft. x 0.022 = 0.25 L x 3 Vol. = 0.75 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:31	0.0	200	purge start time						
11:39	1.6	↓	6.67	823.60	11.19	1.59	-81.90	26.07	
11:42	2.2		6.68	820.60	11.30	1.39	-88.30	29.54	
11:45	2.8		6.67	818.70	11.05	1.27	-89.00	37.55	
11:48	3.4		6.67	822.00	10.87	1.20	-90.40	32.58	
11:51	4.0		6.67	821.00	10.82	1.14	-92.10	29.89	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/11/2026 11:51

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.67 pH 821.00 Spec. Cond. 10.82 Temp

Field Filtered: No Filter Type:

Water Level: 20.02 feet below TOC Drawdown: 0.25 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Brett Gillihan **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP14
Project Location:	Springfield, IL	**Sample ID:**	015
W.O. Number (s):	26020092	**Date (s):**	2/12/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 38 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/12/26 9:16 AM

Static Water Level: 3.49 feet below TOC

Total Depth: 31.20 feet below TOC

Water Column: 27.71 feet

Purging Activities

Purged By: JC — Purge Date: 2/12/2026

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 27.71 ft. x 0.022 = 0.61 L x 3 Vol. = 1.83 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:17	0.0	208	purge start time						
9:23	1.3	↓	6.88	1,937.70	10.79	4.42	-44.00	2.43	
9:26	1.9		6.87	1,924.60	10.90	3.29	-44.20	94.31	
9:29	2.5		6.87	1,914.00	11.05	2.71	-45.00	24.70	
9:32	3.1		6.88	1,911.00	11.09	2.34	-44.80	2.45	
9:35	3.8		6.88	1,905.90	11.23	2.08	-45.00	1.02	
9:38	4.4		6.89	1,909.40	11.11	1.92	-45.10	1.32	
9:41	5.0		6.90	1,896.60	10.30	1.95	-44.10	0.94	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/12/2026 9:41

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.90 pH — 1,896.60 Spec. Cond. — 10.30 Temp

Field Filtered: No — Filter Type:

Water Level: 3.55 feet below TOC — Drawdown: 0.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp — **Date:** 2/12/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-01
Project Location:	Springfield, IL	**Sample ID:**	016
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 45 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 12:12 PM

Static Water Level: 14.75 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 8.20 feet

Purging Activities

Purged By: DC Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 8.2 ft. x 0.022 = 0.18 L x 3 Vol. = 0.54 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:12	0.0	138	purge start time						
12:29	2.3	↓	6.54	1,527.00	11.14	1.75	34.10	33.23	
12:32	2.8		6.54	1,526.50	11.20	1.61	36.80	29.49	
12:35	3.2		6.54	1,530.40	11.15	1.54	38.70	28.28	
12:38	3.6		6.54	1,529.90	11.35	1.56	40.40	25.27	
12:41	4.0		6.54	1,529.90	11.48	1.52	42.30	21.22	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/11/2026 12:41

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.54 pH 1,529.90 Spec. Cond. 11.48 Temp

Field Filtered: No Filter Type:

Water Level: 14.81 feet below TOC Drawdown: 0.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Brett Gillihan **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-02
Project Location:	Springfield, IL	**Sample ID:**	017
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 38 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 10:16 AM

Static Water Level: 27.31 feet below TOC

Total Depth: 34.44 feet below TOC

Water Column: 7.13 feet

Purging Activities

Purged By: DC Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.13 ft. x 0.022 = 0.16 L x 3 Vol. = 0.48 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear Odor: Slight Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:16	0.0	188	purge start time						
10:20	0.8	↓	6.53	2,037.20	10.88	2.68	-79.50	12.02	
10:23	1.3		6.51	2,074.40	10.62	1.88	-78.20	5.83	
10:26	1.9		6.51	2,073.50	10.75	1.57	-79.50	5.45	
10:29	2.4		6.51	2,067.40	10.73	1.43	-80.60	5.15	
10:32	3.0		6.51	2,060.00	10.73	1.35	-81.10	5.34	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/11/2026 10:32

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.51 pH 2,060.00 Spec. Cond. 10.73 Temp

Field Filtered: No Filter Type:

Water Level: 27.84 feet below TOC Drawdown: 0.53 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Brett Gillihan **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-04
Project Location:	Springfield, IL	**Sample ID:**	018
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 35 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/11/26 9:28 AM

Static Water Level: 20.39 feet below TOC

Total Depth: 27.42 feet below TOC

Water Column: 7.03 feet

Purging Activities

Purged By: JC Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.03 ft. x 0.022 = 0.15 L x 3 Vol. = 0.45 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:29	0.0	227	purge start time						
9:39	2.3	↓	6.71	871.70	11.51	4.15	-74.30	56.46	
9:42	3.0		6.63	763.10	11.39	3.67	-63.40	46.08	
9:45	3.6		6.48	598.80	11.27	3.57	-43.80	75.27	
9:48	4.3		6.39	542.50	11.42	3.55	-23.20	81.29	
9:51	5.0		6.36	529.90	11.54	3.49	-9.70	80.62	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/11/2026 9:51

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.36 pH 529.90 Spec. Cond. 11.54 Temp

Field Filtered: No Filter Type:

Water Level: 20.92 feet below TOC Drawdown: 0.53 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-05
Project Location:	Springfield, IL	**Sample ID:**	019
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 40 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 10:48 AM

Static Water Level: 14.51 feet below TOC

Total Depth: 22.34 feet below TOC

Water Column: 7.83 feet

Purging Activities

Purged By: JC Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.83 ft. x 0.022 = 0.17 L x 3 Vol. = 0.51 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 8.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:49	0.0	216	purge start time						
10:56	1.5	↓	6.67	788.80	13.39	5.21	33.10	6.42	
10:59	2.2		6.66	789.10	13.27	4.83	41.80	10.61	
11:02	2.8		6.66	794.30	13.37	4.50	48.20	12.15	
11:05	3.5		6.66	801.40	13.52	4.19	52.30	10.92	
11:08	4.1		6.67	810.20	13.52	3.89	55.70	9.87	
11:11	4.8		6.67	816.10	13.26	3.72	58.50	9.57	
11:14	5.4		6.67	818.80	13.27	3.51	61.40	8.09	
11:17	6.1		6.68	817.50	13.46	3.35	64.00	7.25	
11:20	6.7		6.69	820.50	13.32	3.19	65.80	7.02	
11:23	7.4		6.68	814.50	13.15	3.10	67.90	7.68	
11:26	8.0		6.68	812.60	13.39	3.07	70.00	7.49	

Sampling Activities

Sampled By: JC Sample Date/Time: 2/11/2026 11:26

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.68 pH 812.60 Spec. Cond. 13.39 Temp

Field Filtered: No Filter Type:

Water Level: 16.40 feet below TOC Drawdown: 1.89 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-06
Project Location:	Springfield, IL	**Sample ID:**	020
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 43 °F — Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/11/26 11:39 AM

Static Water Level: 13.14 feet below TOC

Total Depth: 43.62 feet below TOC

Water Column: 30.48 feet

Purging Activities

Purged By: JC — Purge Date: 2/11/2026

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 30.48 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy — Odor: None — Color: slight

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:40	0.0	227	purge start time						
11:47	1.6	↓	6.78	863.20	12.72	2.97	-105.10	36.18	
11:50	2.3		6.78	863.70	12.84	2.35	-114.40	46.29	
11:53	3.0		6.77	863.90	12.84	2.01	-118.50	42.92	
11:56	3.6		6.78	862.70	12.89	1.78	-122.10	52.03	
11:59	4.3		6.78	863.60	12.89	1.63	-124.10	55.62	
12:02	5.0		6.78	861.70	12.89	1.51	-123.70	66.32	

Sampling Activities

Sampled By: JC — Sample Date/Time: 2/11/2026 12:02

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.78 pH — 861.70 Spec. Cond. — 12.89 Temp

Field Filtered: No — Filter Type:

Water Level: 13.29 feet below TOC — Drawdown: 0.15 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp — **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AW-1
Project Location:	Springfield, IL	**Sample ID:**	021
W.O. Number (s):	26020092	**Date (s):**	2/11/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 41 °F Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 12:29 PM

Static Water Level: 17.91 feet below TOC

Total Depth: 54.81 feet below TOC

Water Column: 36.90 feet

Purging Activities

Purged By: AL Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 36.9 ft. x 0.022 = 0.81 L x 3 Vol. = 2.43 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:29	0.0	130	purge start time						
12:40	1.4	↓	6.66	1,601.10	13.36	1.33	-96.30	2.21	
12:43	1.8		6.65	1,595.20	13.42	1.20	-97.20	1.52	
12:46	2.2		6.65	1,595.60	13.67	1.11	-98.00	1.30	
12:49	2.6		6.66	1,595.90	13.83	1.07	-98.90	0.79	
12:52	3.0		6.66	1,597.00	14.00	1.03	-99.90	0.49	

Sampling Activities

Sampled By: PY Sample Date/Time: 2/11/2026 12:52

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

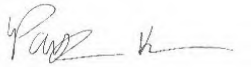
Sample Parameters: 6.66 pH 1,597.00 Spec. Cond. 14.00 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 19.97 feet below TOC Drawdown: 2.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 218076

Form Completed By:  **Date:** 2/11/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	G120
Project Location:	Springfield, IL	**Sample ID:**	022
W.O. Number (s):	26020092	**Date (s):**	2/12/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 40 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☐ None ☑ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/12/26 10:59 AM

Static Water Level: 19.60 feet below TOC

Total Depth: 50.37 feet below TOC

Water Column: 30.77 feet

Purging Activities

Purged By: AL Purge Date: 2/12/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.77 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear Odor: Moderate Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:55	0.0	167	purge start time						
11:04	1.5	↓	6.98	1,854.20	12.24	1.46	-29.70	7.64	
11:07	2.0		7.00	1,857.10	12.50	1.34	-37.50	6.23	
11:10	2.5		7.02	1,861.60	12.52	1.23	-45.30	5.83	
11:13	3.0		7.01	1,866.10	12.67	1.16	-62.20	6.61	

Sampling Activities

Sampled By: DN Sample Date/Time: 2/12/2026 11:13

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 7.01 pH 1,866.10 Spec. Cond. 12.67 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 19.69 feet below TOC Drawdown: 0.09 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 218076

Form Completed By: Allison Lampe **Date:** 2/12/2026

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 26020092
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 1Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 218076 Technician(s): A.Lampe Date: 2/12/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	127.00	2/11/26 8:47
7.0 Buffer	WC251017B	7.00	-42.10	2/11/26 8:51
10.0 Buffer	WC251017C	10.00	-209.10	2/11/26 8:54
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	108769	1412	2/11/26 8:57

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.23	2/11/26 9:05
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-AL	LCS	2/11/26 9:04	6.4	7.05	1,415	0.26		
CCV-1-AL	CCV	2/11/26 14:49	12.2	7.09	1,394	0.23		

Comments:

Field Meter ID: Pine 218076 Technician(s): A.Lampe Date: 2/12/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	124.40	2/12/26 8:57
7.0 Buffer	WC251017B	7.00	-44.60	2/12/26 8:59
10.0 Buffer	WC251017C	10.00	-208.20	2/12/26 9:02
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	108769	1412	2/12/26 9:06

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.72	2/12/26 9:11
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-AL	LCS	2/12/26 9:11	6.3	7.05	1,411	0.72		
CCV-2-AL	CCV	2/12/26 11:22	7.8	7.09	1,393	0.56		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 26020092
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 1Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 217941 Technician(s): Brett Gillihan Date: 2/11/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	143.20	2/11/26 9:01
7.0 Buffer	WC251017B	7.00	0.00	2/11/26 8:56
10.0 Buffer	WC251017C	10.00	-196.30	2/11/26 9:05
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	108769	1412	2/11/26 9:08

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.23	2/11/26 9:15
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	2/11/26 9:17	7.8	7.01	1,422	0.28		
CCV-1-BG	CCV	2/11/26 14:45	9.3	7.01	1,426	0.29		

Comments:

Field Meter ID: Pine 217941 Technician(s): Brett Gillihan Date: 2/12/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	140.30	2/12/26 8:56
7.0 Buffer	WC251017B	7.00	-30.80	2/12/26 8:48
10.0 Buffer	WC251017C	10.02	-197.80	2/12/26 8:58
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	108769	1413	2/12/26 9:09

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.35	2/12/26 9:11
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	2/12/26 9:18	7.3	7.02	1,422	0.41		
CCV-2-BG	CCV	2/12/26 11:12	7.9	7.03	1,428	0.43		

Comments:

Site Samping Event: Ash Pond Monitoring Wells
LIMS Workorder: 26020092
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 1Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223344 Technician(s): justin colp Date: 2/11/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	141.90	2/11/26 8:45
7.0 Buffer	WC251017B	7.00	-26.80	2/11/26 8:42
10.0 Buffer	WC251017C	10.00	-192.10	2/11/26 8:48
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	108769	1412	2/11/26 8:55

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.42	2/11/26 8:56
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	2/11/26 8:58	15.6	7.02	1,407	0.4		
CCV-1-JC	CCV	2/11/26 14:25	16.3	7.04	1,366	0.49		

Comments:

Field Meter ID: Pine 223344 Technician(s): justin colp Date: 2/12/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	142.20	2/12/26 9:00
7.0 Buffer	WC251017B	7.00	-25.10	2/12/26 8:57
10.0 Buffer	WC251017C	10.00	-190.70	2/12/26 9:03
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	108769	1412	2/12/26 9:09

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.53	2/12/26 9:10
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	2/12/26 9:12	14.3	7.01	1,411	0.49		
CCV-2-JC	CCV	2/12/26 11:31	13.9	7.03	1,389	0.44		

Comments:

March 12, 2026

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100467
Kansas	E-10374
Kansas	E-10438
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 26020093

Dear Eric Staley:

TEKLAB, INC received 5 samples on 2/12/2026 1:15:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Work Order: 26020093
Client Project: FGDS Landfill
Report Date: 12-Mar-26

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Client: City Water, Light & Power **Work Order:** 26020093

Client Project: FGDS Landfill **Report Date:** 12-Mar-26

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 26020093
Client Project: FGDS Landfill
Report Date: 12-Mar-26

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 26020093
Client Project: FGDS Landfill
Report Date: 12-Mar-26

Cooler Receipt Temp: 5.4 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville
Address 5445 Horseshoe Lake Road, Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville
Address 120 United Drive, Collinsville, IL 62234-7433
Phone (618) 344-1004
Fax
Email jhriley@teklabinc.com

Springfield
Address 3920 Pintail Dr, Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City
Address 8421 Nieman Road, Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air
Address 120 United Drive, Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago
Address 1319 Butterfield Rd., Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power **Work Order:** 26020093

Client Project: FGDS Landfill **Report Date:** 12-Mar-26

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100467	NELAP	1/31/2027	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2026	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2026	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2026	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2026	Collinsville
Arkansas	ADEQ	88-0966		3/14/2026	Collinsville
Illinois	IDPH	17584		5/31/2026	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kansas	KDHE	E-92716		1/31/2027	Collinsville
Kentucky	KWLCP	KY98050		12/31/2026	Collinsville
Kentucky	KWLCP	KY98006		12/31/2026	Collinsville
Kentucky	UST	0073		1/31/2027	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power **Work Order:** 26020093

Client Project: FGDS Landfill **Report Date:** 12-Mar-26

Lab ID: 26020093-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 02/11/2026 9:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	02/11/2026 9:46	R379199
Depth to water	*	-5.00		**6.04**	ft	1	02/11/2026 9:46	R379199
Depth to water from measuring point	*	0		**8.84**	ft	1	02/11/2026 9:46	R379199
Elevation of groundwater surface	*	0		**537.96**	ft	1	02/11/2026 9:46	R379199
Measuring Point Elevation	*	0		**546.80**	ft	1	02/11/2026 9:46	R379199
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	02/11/2026 9:46	R379199
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.8**	NTU	1	02/11/2026 9:46	R379199
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**47.7**	°F	1	02/11/2026 9:46	R379199
SW-846 9040B								
pH, Field	*	1.00		**7.33**		1	02/11/2026 9:46	R379199
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1260**	µmhos/cm @25C	1	02/11/2026 9:46	R379199
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**834**	mg/L	1	02/18/2026 10:27	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 14:59	R379009
Chloride	NELAP	5.00		**109**	mg/L	10	02/13/2026 14:59	R379009
Sulfate	NELAP	10.0		**255**	mg/L	10	02/13/2026 14:59	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.148**	mg/L	1	02/14/2026 14:29	251742
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/14/2026 14:29	251742
Boron	NELAP	0.0200		**0.135**	mg/L	1	02/14/2026 14:29	251742
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/14/2026 14:29	251742
Calcium	NELAP	0.100		**132**	mg/L	1	02/14/2026 14:29	251742
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/14/2026 14:29	251742
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/14/2026 14:29	251742
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/14/2026 14:29	251742
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/14/2026 14:29	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0020**	mg/L	5	02/21/2026 1:57	251742
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2026 1:57	251742
Lithium	*	0.0030		**0.0177**	mg/L	5	02/23/2026 18:01	251742
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2026 1:57	251742
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/21/2026 1:57	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/14/2026 18:57	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**6.24**	pci/L	1	02/27/2026 7:28	R380064
Combined 226/228 Uncertainty	*	0		**1.47**	+/-	1	02/27/2026 7:28	R380064
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R380064
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	02/27/2026 7:28	R380064
Radium-228	*	1.00		**6.14**	pci/L	1	02/26/2026 13:46	R380064
Radium-228 Uncertainty	*	0		**1.40**	+/-	1	02/26/2026 13:46	R380064

Client: City Water, Light & Power **Work Order:** 26020093

Client Project: FGDS Landfill **Report Date:** 12-Mar-26

Lab ID: 26020093-002 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 02/11/2026 13:41

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	02/11/2026 13:41	R379199
Depth to water	*	-5.00		**29.04**	ft	1	02/11/2026 13:41	R379199
Depth to water from measuring point	*	0		**30.91**	ft	1	02/11/2026 13:41	R379199
Elevation of groundwater surface	*	0		**524.69**	ft	1	02/11/2026 13:41	R379199
Measuring Point Elevation	*	0		**555.60**	ft	1	02/11/2026 13:41	R379199
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	02/11/2026 13:41	R379199
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	02/11/2026 13:41	R379199
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.3**	°F	1	02/11/2026 13:41	R379199
SW-846 9040B								
pH, Field	*	1.00		**6.95**		1	02/11/2026 13:41	R379199
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1540**	µmhos/cm @25C	1	02/11/2026 13:41	R379199
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1040**	mg/L	1	02/18/2026 10:35	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 15:12	R379009
Chloride	NELAP	5.00		**31.6**	mg/L	10	02/13/2026 15:12	R379009
Sulfate	NELAP	10.0		**316**	mg/L	10	02/13/2026 15:12	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.380**	mg/L	1	02/14/2026 14:39	251742
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/14/2026 14:39	251742
Boron	NELAP	0.0200		**3.36**	mg/L	1	02/14/2026 14:39	251742
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/14/2026 14:39	251742
Calcium	NELAP	0.100	S	**182**	mg/L	1	02/14/2026 14:39	251742
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/14/2026 14:39	251742
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/14/2026 14:39	251742
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/14/2026 14:39	251742
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/14/2026 14:39	251742
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0010**	mg/L	5	02/21/2026 2:02	251742
Arsenic	NELAP	0.0010		**0.0075**	mg/L	5	02/21/2026 2:02	251742
Lithium	*	0.0030		**0.0065**	mg/L	5	02/24/2026 9:13	251742
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2026 2:02	251742
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/21/2026 2:02	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/14/2026 18:59	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	02/27/2026 7:28	R380064
Combined 226/228 Uncertainty	*	0		**0.630**	+/-	1	02/27/2026 7:28	R380064
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R380064
Radium-226 Uncertainty	*	0		**0.110**	+/-	1	02/27/2026 7:28	R380064
Radium-228	*	1.00		**ND**	pci/L	1	02/26/2026 13:46	R380064

Client: City Water, Light & Power
Work Order: 26020093
Client Project: FGDS Landfill
Report Date: 12-Mar-26
Lab ID: 26020093-002
Client Sample ID: G121
Matrix: GROUNDWATER
Collection Date: 02/11/2026 13:41

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.520**	+/-	1	02/26/2026 13:46	R380064

Client: City Water, Light & Power **Work Order:** 26020093

Client Project: FGDS Landfill **Report Date:** 12-Mar-26

Lab ID: 26020093-003 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 02/11/2026 14:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	02/11/2026 14:38	R379199
Depth to water	*	-5.00		**30.74**	ft	1	02/11/2026 14:38	R379199
Depth to water from measuring point	*	0		**32.48**	ft	1	02/11/2026 14:38	R379199
Elevation of groundwater surface	*	0		**521.92**	ft	1	02/11/2026 14:38	R379199
Measuring Point Elevation	*	0		**554.40**	ft	1	02/11/2026 14:38	R379199
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	02/11/2026 14:38	R379199
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**15**	NTU	1	02/11/2026 14:38	R379199
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.0**	°F	1	02/11/2026 14:38	R379199
SW-846 9040B								
pH, Field	*	1.00		**6.66**		1	02/11/2026 14:38	R379199
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1710**	µmhos/cm @25C	1	02/11/2026 14:38	R379199
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1370**	mg/L	1	02/18/2026 10:35	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 15:25	R379009
Chloride	NELAP	5.00		**38.4**	mg/L	10	02/13/2026 15:25	R379009
Sulfate	NELAP	10.0		**558**	mg/L	10	02/13/2026 15:25	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.425**	mg/L	1	02/14/2026 13:40	251742
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/14/2026 13:40	251742
Boron	NELAP	0.0200		**12.0**	mg/L	1	02/14/2026 13:40	251742
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/14/2026 13:40	251742
Calcium	NELAP	0.100		**256**	mg/L	1	02/14/2026 13:40	251742
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/14/2026 13:40	251742
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/14/2026 13:40	251742
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/14/2026 13:40	251742
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/14/2026 13:40	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2026 2:08	251742
Arsenic	NELAP	0.0010		**0.0025**	mg/L	5	02/21/2026 2:08	251742
Lithium	*	0.0030		**0.0072**	mg/L	5	02/23/2026 18:07	251742
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2026 2:08	251742
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/21/2026 2:08	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/14/2026 19:02	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**3.42**	pci/L	1	02/27/2026 7:28	R380064
Combined 226/228 Uncertainty	*	0		**1.11**	+/-	1	02/27/2026 7:28	R380064
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R380064
Radium-226 Uncertainty	*	0		**0.160**	+/-	1	02/27/2026 7:28	R380064
Radium-228	*	1.00		**2.44**	pci/L	1	02/26/2026 13:46	R380064
Radium-228 Uncertainty	*	0		**0.950**	+/-	1	02/26/2026 13:46	R380064

Client: City Water, Light & Power **Work Order:** 26020093

Client Project: FGDS Landfill **Report Date:** 12-Mar-26

Lab ID: 26020093-004 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 02/11/2026 14:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	02/11/2026 14:43	R379199
Depth to water	*	-5.00		**3.37**	ft	1	02/11/2026 14:43	R379199
Depth to water from measuring point	*	0		**6.67**	ft	1	02/11/2026 14:43	R379199
Elevation of groundwater surface	*	0		**523.31**	ft	1	02/11/2026 14:43	R379199
Measuring Point Elevation	*	0		**529.98**	ft	1	02/11/2026 14:43	R379199
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	02/11/2026 14:43	R379199
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.0**	NTU	1	02/11/2026 14:43	R379199
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**55.8**	°F	1	02/11/2026 14:43	R379199
SW-846 9040B								
pH, Field	*	1.00		**7.02**		1	02/11/2026 14:43	R379199
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1040**	µmhos/cm @25C	1	02/11/2026 14:43	R379199
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**648**	mg/L	1	02/18/2026 10:35	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/13/2026 15:37	R379009
Chloride	NELAP	5.00		**23.3**	mg/L	10	02/13/2026 15:37	R379009
Sulfate	NELAP	10.0		**78.4**	mg/L	10	02/13/2026 15:37	R379009
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.422**	mg/L	1	02/14/2026 13:42	251742
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/14/2026 13:42	251742
Boron	NELAP	0.0200		**1.92**	mg/L	1	02/14/2026 13:42	251742
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/14/2026 13:42	251742
Calcium	NELAP	0.100		**138**	mg/L	1	02/14/2026 13:42	251742
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/14/2026 13:42	251742
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/14/2026 13:42	251742
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/14/2026 13:42	251742
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/14/2026 13:42	251742
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2026 2:14	251742
Arsenic	NELAP	0.0010		**0.0099**	mg/L	5	02/21/2026 2:14	251742
Lithium	*	0.0030		**0.0057**	mg/L	5	02/23/2026 18:12	251742
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2026 2:14	251742
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/21/2026 2:14	251742
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/14/2026 19:08	251768
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**2.29**	pci/L	1	02/27/2026 7:28	R380064
Combined 226/228 Uncertainty	*	0		**0.880**	+/-	1	02/27/2026 7:28	R380064
Radium-226	*	1.00		**ND**	pci/L	1	02/27/2026 7:28	R380064
Radium-226 Uncertainty	*	0		**0.120**	+/-	1	02/27/2026 7:28	R380064
Radium-228	*	1.00		**1.83**	pci/L	1	02/26/2026 13:46	R380064
Radium-228 Uncertainty	*	0		**0.760**	+/-	1	02/26/2026 13:46	R380064

Client: City Water, Light & Power **Work Order:** 26020093

Client Project: FGDS Landfill **Report Date:** 12-Mar-26

Lab ID: 26020093-005 **Client Sample ID:** P07D

Matrix: GROUNDWATER **Collection Date:** 02/12/2026 9:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.71**	ft	1	02/12/2026 9:50	R379199
Depth to water	*	-5.00		**3.16**	ft	1	02/12/2026 9:50	R379199
Depth to water from measuring point	*	0		**6.16**	ft	1	02/12/2026 9:50	R379199
Elevation of groundwater surface	*	0		**522.09**	ft	1	02/12/2026 9:50	R379199
Measuring Point Elevation	*	0		**528.25**	ft	1	02/12/2026 9:50	R379199
Measuring Point Height Above Land Surface	*	0		**3.00**	ft	1	02/12/2026 9:50	R379199
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**77**	NTU	1	02/12/2026 9:50	R379199
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**51.8**	°F	1	02/12/2026 9:50	R379199
SW-846 9040B								
pH, Field	*	1.00		**6.87**		1	02/12/2026 9:50	R379199
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1290**	µmhos/cm @25C	1	02/12/2026 9:50	R379199
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**994**	mg/L	1	02/18/2026 16:51	R379405
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	02/15/2026 22:08	R379074
Chloride	NELAP	5.00		**30.7**	mg/L	10	02/15/2026 22:08	R379074
Sulfate	NELAP	10.0		**306**	mg/L	10	02/15/2026 22:08	R379074
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.917**	mg/L	1	02/14/2026 16:56	251804
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	02/14/2026 16:56	251804
Boron	NELAP	0.0200		**4.87**	mg/L	1	02/14/2026 16:56	251804
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	02/14/2026 16:56	251804
Calcium	NELAP	0.100		**190**	mg/L	1	02/14/2026 16:56	251804
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	02/14/2026 16:56	251804
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	02/14/2026 16:56	251804
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	02/14/2026 16:56	251804
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	02/14/2026 16:56	251804
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	02/21/2026 6:39	251804
Arsenic	NELAP	0.0010		**0.0294**	mg/L	5	02/24/2026 10:35	251804
Lithium	*	0.0030		**0.0091**	mg/L	5	02/24/2026 10:35	251804
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	02/24/2026 10:35	251804
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	02/21/2026 6:39	251804
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	02/17/2026 13:51	251890
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**3.39**	pci/L	1	02/27/2026 7:28	R380064
Combined 226/228 Uncertainty	*	0		**1.00**	+/-	1	02/27/2026 7:28	R380064
Radium-226	*	1.00		**1.50**	pci/L	1	02/27/2026 7:28	R380064
Radium-226 Uncertainty	*	0		**0.200**	+/-	1	02/27/2026 7:28	R380064
Radium-228	*	1.00		**1.89**	pci/L	1	02/26/2026 13:46	R380064
Radium-228 Uncertainty	*	0		**0.800**	+/-	1	02/26/2026 13:46	R380064

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 26020093
Report Date: 12-Mar-26

Carrier: Brett Gillihan

Received By: LEH

Completed by: Laura E Henson
On: 12-Feb-26

Reviewed by: Amber Dilallo
On: 13-Feb-26

Pages to follow: Chain of custody 2 Extra pages included 23

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 5.4
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #104524. -JD/ lhenson - 2/12/2026 11:24:39 AM

Additional cooler temperatures: 10.0C, 7.8C, 3.4C. LTG#9. LH 2/12/26

Samples were received on 2/12/26 at 1315 on ice [temp10.4C, 8.0C, 6.6C - LTG#9]. pH#104524. - DM/lhenson - 2/13/2026 7:24:40 AM

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 26020093

5.4 10.0
7.8 3.4

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 4 °C
Preserved in: [ ] LAB [x] FIELD FOR LAB USE ONLY
LAB NOTES: PH104524

JD 2/12/26

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS
Brett Gillihan

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
26020093-001	R101	2.11 | 946	Groundwater	1	4								✓	✓	✓	✓	✓	✓
002	G121	2.11 | 1341	Groundwater	1	4								✓	✓	✓	✓	✓	✓
003	G122	2.11 | 1438	Groundwater	1	4								✓	✓	✓	✓	✓	✓
004	AW-2	2.11 | 1443	Groundwater	1	4								✓	✓	✓	✓	✓	✓
005	P07D		Groundwater	1	4								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	2.11 | 1646	[signature]	2/11/26 1646

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Print PDF

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 26020093

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

10.4

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 8.0/6.6 °C 9
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: PH-104524 Ai 2-13-26

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Britt Gillihan

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
26020093-001	R101		Groundwater	1	4								✓	✓	✓	✓	✓	✓
002	G121		Groundwater	1	4								✓	✓	✓	✓	✓	✓
003	G122		Groundwater	1	4								✓	✓	✓	✓	✓	✓
004	AW-2		Groundwater	1	4								✓	✓	✓	✓	✓	✓
005	P07D	2-12-26 950	Groundwater	1	4								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	2-12-26 1315	[signature]	2/12/26 1315

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	R101
Project Location:	Springfield, IL	**Sample ID:**	001
W.O. Number (s):	26020093	**Date (s):**	2/11/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 33 °F Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 9:26 AM

Static Water Level: 8.84 feet below TOC

Total Depth: 35.27 feet below TOC

Water Column: 26.43 feet

Purging Activities

Purged By: AL Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 26.43 ft. x 0.022 = 0.58 L x 3 Vol. = 1.74 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:26	0.0	150	purge start time						
9:34	1.2	↓	7.32	1,260.70	7.69	1.83	174.60	13.03	
9:37	1.7		7.30	1,256.40	8.28	1.61	175.60	9.94	
9:40	2.1		7.32	1,259.30	8.27	1.44	175.70	8.54	
9:43	2.5		7.33	1,263.10	8.42	1.32	176.70	9.28	
9:46	3.0		7.33	1,260.60	8.70	1.26	177.20	7.79	

Sampling Activities

Sampled By: PY Sample Date/Time: 2/11/2026 9:46

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

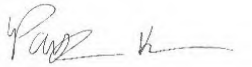
Sample Parameters: 7.33 pH 1,260.60 Spec. Cond. 8.70 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 11.11 feet below TOC Drawdown: 2.27 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 218076

Form Completed By:  **Date:** 2/11/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G121
Project Location:	Springfield, IL	**Sample ID:**	002
W.O. Number (s):	26020093	**Date (s):**	2/11/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 46 °F Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/11/26 1:43 PM

Static Water Level: 30.91 feet below TOC

Total Depth: 58.56 feet below TOC

Water Column: 27.65 feet

Purging Activities

Purged By: AL Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 27.65 ft. x 0.022 = 0.61 L x 3 Vol. = 1.83 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
13:19	0.0	136	purge start time						
13:32	1.8	↓	6.97	1,543.30	13.04	1.56	-58.40	1.01	
13:35	2.2		6.96	1,543.30	12.64	1.44	-60.90	0.74	
13:38	2.6		6.95	1,540.90	12.89	1.37	-63.30	0.57	
13:41	3.0		6.95	1,543.20	12.94	1.33	-65.60	0.38	

Sampling Activities

Sampled By: PY Sample Date/Time: 2/11/2026 13:41

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.95 pH 1,543.20 Spec. Cond. 12.94 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 31.12 feet below TOC Drawdown: 0.21 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 218076

Form Completed By:  **Date:** 2/11/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G122
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	26020093	**Date (s):**	2/11/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 48 °F Wind Direction: ☐ N ☑ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/11/26 2:09 PM

Static Water Level: 32.48 feet below TOC

Total Depth: 49.29 feet below TOC

Water Column: 16.81 feet

Purging Activities

Purged By: DC Purge Date: 2/11/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 16.81 ft. x 0.022 = 0.37 L x 3 Vol. = 1.11 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
14:09	0.0	103	purge start time						
14:26	1.8	↓	6.67	1,698.20	13.12	1.52	-106.30	11.41	
14:29	2.1		6.67	1,700.40	12.92	1.20	-109.60	14.81	
14:32	2.4		6.67	1,701.50	13.12	1.06	-110.90	15.57	
14:35	2.7		6.66	1,706.60	13.23	0.97	-112.10	14.44	
14:38	3.0		6.66	1,710.20	13.34	0.92	-113.10	14.74	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/11/2026 14:38

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.66 pH 1,710.20 Spec. Cond. 13.34 Temp

Field Filtered: No Filter Type:

Water Level: 33.75 feet below TOC Drawdown: 1.27 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Brett Gillihan **Date:** 2/11/2026

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield, IL
W.O. Number (s): 26020093
Monitoring Point: AW-2
Sample ID: 004
Date (s): 2/11/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 41 °F Wind Direction: ☐ N ☐ S ☐ E ☑ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 2/11/26 2:27 PM
Static Water Level: 6.67 feet below TOC
Total Depth: 32.64 feet below TOC
Water Column: 25.97 feet

Purging Activities

Purged By: AL Purge Date: 2/11/2026
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 25.97 ft. x 0.022 = 0.57 L x 3 Vol. = 1.71 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Clear Odor: Moderate Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
14:27	0.0	187	purge start time						
14:34	1.3	↓	7.04	1,042.00	13.03	1.21	54.90	9.17	
14:37	1.9		7.02	1,041.60	13.10	1.05	54.90	10.70	
14:40	2.4		7.02	1,041.70	13.19	0.96	53.40	8.16	
14:43	3.0		7.02	1,042.10	13.23	0.90	50.50	7.03	

Sampling Activities

Sampled By: PY Sample Date/Time: 2/11/2026 14:43
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 7.02 pH 1,042.10 Spec. Cond. 13.23 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 6.71 feet below TOC Drawdown: 0.04 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 218076

Form Completed By: Allison Lampe **Date:** 2/11/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	P07D
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	26020093	**Date (s):**	2/12/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 39 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 2/12/26 9:19 AM

Static Water Level: 6.16 feet below TOC

Total Depth: 32.54 feet below TOC

Water Column: 26.38 feet

Purging Activities

Purged By: DC Purge Date: 2/12/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 26.38 ft. x 0.022 = 0.58 L x 3 Vol. = 1.74 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Lt Brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:19	0.0	129	purge start time						
9:38	2.5	↓	6.86	1,293.40	10.89	1.12	-119.50	70.82	
9:41	2.8		6.86	1,295.20	10.86	1.01	-121.30	81.85	
9:44	3.2		6.86	1,292.30	10.87	0.96	-122.20	92.23	
9:47	3.6		6.87	1,292.40	10.94	0.95	-122.70	80.63	
9:50	4.0		6.87	1,292.20	11.00	0.92	-123.00	76.92	

Sampling Activities

Sampled By: BG Sample Date/Time: 2/12/2026 9:50

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.87 pH 1,292.20 Spec. Cond. 11.00 Temp

Field Filtered: No Filter Type:

Water Level: 7.72 feet below TOC Drawdown: 1.56 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Brett Gillihan **Date:** 2/12/2026

Site Samping Event: FGDS Landfill
LIMS Workorder: 26020093
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 1Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 218076 Technician(s): A.Lampe Date: 2/12/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	127.00	2/11/26 8:47
7.0 Buffer	WC251017B	7.00	-42.10	2/11/26 8:51
10.0 Buffer	WC251017C	10.00	-209.10	2/11/26 8:54
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	108769	1412	2/11/26 8:57

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.23	2/11/26 9:05
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-AL	LCS	2/11/26 9:04	6.4	7.05	1,415	0.26		
CCV-1-AL	CCV	2/11/26 14:49	12.2	7.09	1,394	0.23		

Comments:

Field Meter ID: Pine 218076 Technician(s): A.Lampe Date: 2/12/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	124.40	2/12/26 8:57
7.0 Buffer	WC251017B	7.00	-44.60	2/12/26 8:59
10.0 Buffer	WC251017C	10.00	-208.20	2/12/26 9:02
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	108769	1412	2/12/26 9:06

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.72	2/12/26 9:11
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-AL	LCS	2/12/26 9:11	6.3	7.05	1,411	0.72		
CCV-2-AL	CCV	2/12/26 11:22	7.8	7.09	1,393	0.56		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 26020093
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 1Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 217941 Technician(s): Brett Gillihan Date: 2/11/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	143.20	2/11/26 9:01
7.0 Buffer	WC251017B	7.00	0.00	2/11/26 8:56
10.0 Buffer	WC251017C	10.00	-196.30	2/11/26 9:05
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	108769	1412	2/11/26 9:08

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.23	2/11/26 9:15
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	2/11/26 9:17	7.8	7.01	1,422	0.28		
CCV-1-BG	CCV	2/11/26 14:45	9.3	7.01	1,426	0.29		

Comments:

Field Meter ID: Pine 217941 Technician(s): Brett Gillihan Date: 2/12/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	140.30	2/12/26 8:56
7.0 Buffer	WC251017B	7.00	-30.80	2/12/26 8:48
10.0 Buffer	WC251017C	10.02	-197.80	2/12/26 8:58
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	108769	1413	2/12/26 9:09

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.35	2/12/26 9:11
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading	Date/Time

D.O. Saturation	LIMS ID/Lot#	Reading	Date/Time
100%	N/A		

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	2/12/26 9:18	7.3	7.02	1,422	0.41		
CCV-2-BG	CCV	2/12/26 11:12	7.9	7.03	1,428	0.43		

Comments:

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March 04, 2026

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 26020093

Dear Shelly Hennessy: Order No.: 26021091

Alliance Technical Group - Akron received 5 sample(s) on 2/16/2026 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0828, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **26021091**
Date: **3/4/2026**

CLIENT: TEKLAB Inc,
Project: 26020093

WorkOrder Narrative:
26021091: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence Sample Notes:
26021091-001A Radium-228_DW(904.0): Sample result to be reported at client's request without confirmation due to limited volume.
26021091-003A Radium-228_DW(904.0): Sample result to be reported at client's request without confirmation due to limited volume.

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Qualifiers and Acronyms

WO#: **26021091**
Date: **3/4/2026**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **26021091**

04-Mar-26

CLIENT: TEKLAB Inc,
Project: 26020093

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
26021091-001	26020093-001		2/11/2026 9:46:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water
26021091-002	26020093-002		2/11/2026 1:41:00 PM	2/16/2026 1:00:00 PM	Non-Potable Water
26021091-003	26020093-003		2/11/2026 2:38:00 PM	2/16/2026 1:00:00 PM	Non-Potable Water
26021091-004	26020093-004		2/11/2026 2:43:00 PM	2/16/2026 1:00:00 PM	Non-Potable Water
26021091-005	26020093-005		2/12/2026 9:50:00 AM	2/16/2026 1:00:00 PM	Non-Potable Water

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DATES REPORT

WO#: **26021091**

04-Mar-26

Client: TEKLAB Inc,
Project: 26020093

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26021091-001A	26020093-001	2/11/2026 9:46:00 AM	Non-Potable Water	Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021091-002A	26020093-002	2/11/2026 1:41:00 PM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021091-003A	26020093-003	2/11/2026 2:38:00 PM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021091-004A	26020093-004	2/11/2026 2:43:00 PM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM
26021091-005A	26020093-005	2/12/2026 9:50:00 AM		Radium-226 (903.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-226/228 (903.0/904.0)		2/19/2026 7:50:00 AM	2/27/2026 7:28:00 AM
				Radium-228 (904.0)		2/19/2026 7:50:00 AM	2/26/2026 1:46:00 PM

Original

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Analytical Report

(consolidated)

WO#: **26021091**

Date Reported: **3/4/2026**

CLIENT: TEKLAB Inc,
Project: 26020093
Lab ID: 26021091-001
Client Sample ID: 26020093-001

Collection Date: 2/11/2026 9:46:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	MDL	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)					**PA 903.0/EPA904.(**		**900 SERIES**	Analyst: **TAL**
Radium-226/Radium-228 Combined	6.24	2.00	2.00	*	pCi/L	± 1.47	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)						**EPA 903.0**	**900 SERIES**	Analyst: **TAL**
Radium-226	0.1	0.627	1.00	U	pCi/L	± 0.07	1	2/27/2026 7:28:00 AM
Yield	0.910						1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)						**EPA 904.0**	**900 SERIES**	Analyst: **TAL**
Radium-228	6.14	0.640	1.00	*	pCi/L	± 1.4	1	2/26/2026 1:46:00 PM
Yield	0.840						1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
U	Samples with CalcVal < MDL
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

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Analytical Report

(consolidated)

WO#: **26021091**

Date Reported: **3/4/2026**

CLIENT: TEKLAB Inc,
Project: 26020093
Lab ID: 26021091-002
Client Sample ID: 26020093-002

Collection Date: 2/11/2026 1:41:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	MDL	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0)					**EPA 903.0/EPA904.0**		**900 SERIES**	Analyst: **TAL**
RADIUM-226/228 (903.0/904.0)								
Radium-226/Radium-228 Combined	ND	2.00	2.00	U	pCi/L	± 0.63	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0)					**EPA 903.0**		**900 SERIES**	Analyst: **TAL**
RADIUM-226 (903.0)								
Radium-226	ND	0.627	1.00	U	pCi/L	± 0.11	1	2/27/2026 7:28:00 AM
Yield	1.00						1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0)					**EPA 904.0**		**900 SERIES**	Analyst: **TAL**
RADIUM-228 (904.0)								
Radium-228	ND	0.640	1.00	U	pCi/L	± 0.52	1	2/26/2026 1:46:00 PM
Yield	1.00						1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
U	Samples with CalcVal < MDL
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

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Analytical Report

(consolidated)

WO#: **26021091**

Date Reported: **3/4/2026**

CLIENT: TEKLAB Inc,
Project: 26020093
Lab ID: 26021091-003
Client Sample ID: 26020093-003

Collection Date: 2/11/2026 2:38:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	MDL	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)					**EPA 903.0/EPA904.0**		**900 SERIES**	Analyst: **TAL**
Radium-226/Radium-228 Combined	3.42	2.00	2.00		pCi/L	± 1.11	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**EPA 903.0**		**900 SERIES**	Analyst: **TAL**
Radium-226	0.980	0.627	1.00	J	pCi/L	± 0.16	1	2/27/2026 7:28:00 AM
Yield	1.00						1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**EPA 904.0**		**900 SERIES**	Analyst: **TAL**
Radium-228	2.44	0.640	1.00		pCi/L	± 0.95	1	2/26/2026 1:46:00 PM
Yield	0.880						1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at testcode

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26021091**

Date Reported: **3/4/2026**

CLIENT: TEKLAB Inc,
Project: 26020093
Lab ID: 26021091-004
Client Sample ID: 26020093-004

Collection Date: 2/11/2026 2:43:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	MDL	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0)					**EPA 903.0/EPA904.0**		**900 SERIES**	Analyst: **TAL**
RADIUM-226/228 (903.0/904.0)								
Radium-226/Radium-228 Combined	2.29	2.00	2.00		pCi/L	± 0.88	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0)					**EPA 903.0**		**900 SERIES**	Analyst: **TAL**
RADIUM-226 (903.0)								
Radium-226	0.46	0.627	1.00	U	pCi/L	± 0.12	1	2/27/2026 7:28:00 AM
Yield	0.980						1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0)					**EPA 904.0**		**900 SERIES**	Analyst: **TAL**
RADIUM-228 (904.0)								
Radium-228	1.83	0.640	1.00		pCi/L	± 0.76	1	2/26/2026 1:46:00 PM
Yield	1.00						1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
U	Samples with CalcVal < MDL
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26021091**

Date Reported: **3/4/2026**

CLIENT: TEKLAB Inc,
Project: 26020093
Lab ID: 26021091-005
Client Sample ID: 26020093-005

Collection Date: 2/12/2026 9:50:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	MDL	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226/228 (903.0/904.0)					**PA 903.0/EPA904.(**		**900 SERIES**	Analyst: **TAL**
Radium-226/Radium-228 Combined	3.39	2.00	2.00		pCi/L	± 1	1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-226 (903.0)					**EPA 903.0**		**900 SERIES**	Analyst: **TAL**
Radium-226	1.50	0.627	1.00		pCi/L	± 0.2	1	2/27/2026 7:28:00 AM
Yield	0.890						1	2/27/2026 7:28:00 AM
COMBINED RADIUM-226/228 (EPA 903.0/904.0) RADIUM-228 (904.0)					**EPA 904.0**		**900 SERIES**	Analyst: **TAL**
Radium-228	1.89	0.640	1.00		pCi/L	± 0.8	1	2/26/2026 1:46:00 PM
Yield	1.00						1	2/26/2026 1:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at testcode

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021091**

04-Mar-26

Client: TEKLAB Inc,
Project: 26020093 **BatchID:** **93295**

Sample ID: **MB-93295**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229951**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E904.0**	**E903-904**	Analysis Date: **2/26/2026**	SeqNo: **6065009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	1.00			0	0						

Sample ID: **LCS-93295**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229951**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E904.0**	**E903-904**	Analysis Date: **2/26/2026**	SeqNo: **6065010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.83	1.00	5.000	0	56.6	50	130				QLR
Yield	0.810			0	0						

Sample ID: **LCSD-93295**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229951**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E904.0**	**E903-904**	Analysis Date: **2/26/2026**	SeqNo: **6065011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.69	1.00	5.000	0	73.8	50	130	2.830	26.4	20	R
Yield	1.00			0	0			0.8100	21.0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spec

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021091**

04-Mar-26

Client: TEKLAB Inc,
Project: 26020093 **BatchID:** **93295**

Sample ID: **26021092-004ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229951**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E904.0**	**E903-904**	Analysis Date: **2/26/2026**	SeqNo: **6065027**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.16	1.00		0	0			1.120	3.51	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spec

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021091**

04-Mar-26

Client: TEKLAB Inc,
Project: 26020093 **BatchID:** **93295**

Sample ID: **MB-93295**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229968**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/27/2026**	SeqNo: **6065175**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	1.00										

Sample ID: **LCS-93295**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229968**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/27/2026**	SeqNo: **6065176**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.58	1.00	5.000	0	91.6	70	130				

Sample ID: **LCSD-93295**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229968**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/27/2026**	SeqNo: **6065177**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.12	1.00	5.000	0	82.4	70	130	4.580	10.6	20	

Sample ID: **26021092-003ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **2/19/2026**	RunNo: **229968**
Client ID: **BatchQC**	Batch ID: **93295**	TestNo: **E903.0**	**E903-904**	Analysis Date: **2/27/2026**	SeqNo: **6065191**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spec

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26021091**

04-Mar-26

Client: TEKLAB Inc,
Project: 26020093 **BatchID:** **93295**

Sample ID: **26021092-003ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **229968**
Client ID: **BatchQC** Batch ID: **93295** TestNo: **E903.0** **E903-904** Analysis Date: **2/27/2026** SeqNo: **6065191**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	0.980							0.9500	3.11	0	

Sample ID: **26021092-004ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **2/19/2026** RunNo: **229968**
Client ID: **BatchQC** Batch ID: **93295** TestNo: **E903.0** **E903-904** Analysis Date: **2/27/2026** SeqNo: **6065193**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	0.990							1.000	1.01	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spec

Original

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

26021091

Are the samples chilled? YES ☑ NO ☐ With: ☑ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: | Sampler: teklab employee | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per your usual methods.
State of Sample Origin = IL
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.

Project# 26020093

Contact: Shelly Hennessy | Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT | Billing/PO: 40451 | Phone: (618) 344-1004 x 1024

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Radium 226	Radium 228	(CW)
~~pH<2,2,2~~	26020093-001	2/11/26 946	☐	☑	☐	☐	☐	Groundwater	☐	✔	✔	~~30,40,37~~
~~pH<2,2,2~~	26020093-002	2/11/26 1341	☐	☑	☐	☐	☐	Groundwater	☐	✔	✔	~~18,20,20~~ SN
~~pH<2,2,2~~ SN	26020093-003	2/11/26 1438	☐	☑	☐	☐	☐	Groundwater	☐	✔	✔	~~20,26,28~~ 2/16/26
~~pH<2,2,2~~ 2/11	26020093-004	2/11/26 1443	☐	☑	☐	☐	☐	Groundwater	☐	✔	✔	~~20,15,20~~
~~pH<2,2,2~~	26020093-005	2/12/26 950	☐	☑	☐	☐	☐	Groundwater	☐	✔	✔	~~18,16,16~~
			☐	☐	☐	☐	☐	Aqueous				
			☐	☐	☐	☐	☐	Aqueous				
			☐	☐	☐	☐	☐	Aqueous				
			☐	☐	☐	☐	☐	Aqueous				
			☐	☐	☐	☐	☐	Aqueous				
			☐	☐	☐	☐	☐	Aqueous				

*Relinquished By	Date/Time	Received By	Date/Time
	2/13/26 1700	2/16/26	
		Faex 1300	C.S. intact
		21.8+0.0=21.8	2/13

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **26021091** RcptNo: **1**

Logged by:	**Spencer M. Hartwell**	**2/16/2026 1:00:00 PM**	Spencer M. Hartwell
Completed By:	**Spencer M. Hartwell**	**2/16/2026 2:34:19 PM**	Spencer M. Hartwell
Reviewed By:	**Jennifer Woolf**	**2/23/2026 2:12:02 PM**	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐ NA ☐
   No. Seal Date: 2/13/2026 Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	21.8	Good	Yes		2/13/2026	

May 22, 2026

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100467
Kansas	E-10374
Kansas	E-10438
Louisiana	05002
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 26041298

Dear Eric Staley:

TEKLAB, INC received 22 samples on 4/23/2026 1:04:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26041298
Report Date: 22-May-26

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	40
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 26041298

Client Project: Ash Pond Monitoring Wells **Report Date:** 22-May-26

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26041298
Report Date: 22-May-26

Cooler Receipt Temp: 2.4 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville

Address 120 United Drive
Collinsville, IL 62234-7433
Phone (618) 344-1004
Fax
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 120 United Drive
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100467	NELAP	1/31/2027	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2027	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2027	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2026	Collinsville
Arkansas	ADEQ	88-0966		3/14/2027	Collinsville
Illinois	IDPH	17584		5/31/2026	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kansas	KDHE	E-92716		1/31/2027	Collinsville
Kentucky	KWLCP	KY98050		12/31/2026	Collinsville
Kentucky	KWLCP	KY98006		12/31/2026	Collinsville
Kentucky	UST	0073		1/31/2027	Collinsville
Louisiana	LDEQ	05003		6/30/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 04/22/2026 11:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	04/22/2026 11:07	R383248
Depth to water	*	-5.00		**7.28**	ft	1	04/22/2026 11:07	R383248
Depth to water from measuring point	*	0		**9.98**	ft	1	04/22/2026 11:07	R383248
Elevation of groundwater surface	*	0		**529.52**	ft	1	04/22/2026 11:07	R383248
Measuring Point Elevation	*	0		**539.50**	ft	1	04/22/2026 11:07	R383248
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	04/22/2026 11:07	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	04/22/2026 11:07	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.9**	°F	1	04/22/2026 11:07	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.97**		1	04/22/2026 11:07	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**650**	µmhos/cm @25C	1	04/22/2026 11:07	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**454**	mg/L	1	04/23/2026 9:51	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 12:22	R382935
Chloride	NELAP	5.00		**27.2**	mg/L	10	04/26/2026 12:22	R382935
Sulfate	NELAP	10.0		**ND**	mg/L	10	04/26/2026 12:22	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**154**	µg/L	1	04/23/2026 18:54	255438
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 18:54	255438
Boron	NELAP	20.0		**161**	µg/L	1	04/23/2026 18:54	255438
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 18:54	255438
Calcium	NELAP	0.100		**71.5**	mg/L	1	04/23/2026 18:54	255438
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 18:54	255438
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 18:54	255438
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 18:54	255438
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 18:54	255438
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**14.2**	µg/L	5	05/18/2026 20:15	256647
Arsenic	NELAP	1.0		**87.4**	µg/L	5	05/03/2026 17:51	255438
Lithium	*	3.0		**8.4**	µg/L	5	05/14/2026 9:01	255438
Selenium	NELAP	1.0		**10.8**	µg/L	5	05/03/2026 17:51	255438
Thallium	NELAP	2.0		**2.3**	µg/L	5	05/03/2026 17:51	255438
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:00	255467
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.310**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223
Radium-228 Uncertainty	*	0		**0.260**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-002
Client Sample ID: AP-1
Matrix: GROUNDWATER
Collection Date: 04/22/2026 10:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**504.29**	ft	1	04/22/2026 10:43	R383248
Depth to water	*	-5.00		**7.48**	ft	1	04/22/2026 10:43	R383248
Depth to water from measuring point	*	0		**9.75**	ft	1	04/22/2026 10:43	R383248
Elevation of groundwater surface	*	0		**525.62**	ft	1	04/22/2026 10:43	R383248
Measuring Point Elevation	*	0		**535.37**	ft	1	04/22/2026 10:43	R383248
Measuring Point Height Above Land Surface	*	0		**2.27**	ft	1	04/22/2026 10:43	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.8**	NTU	1	04/22/2026 10:43	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.6**	°F	1	04/22/2026 10:43	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.49**		1	04/22/2026 10:43	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1240**	µmhos/cm @25C	1	04/22/2026 10:43	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1860**	mg/L	1	04/23/2026 9:51	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 12:35	R382935
Chloride	NELAP	5.00		**50.1**	mg/L	10	04/26/2026 12:35	R382935
Sulfate	NELAP	10.0		**837**	mg/L	10	04/26/2026 12:35	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**266**	µg/L	1	04/23/2026 18:56	255438
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 18:56	255438
Boron	NELAP	200		**23600**	µg/L	10	04/27/2026 11:49	255438
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 18:56	255438
Calcium	NELAP	0.100		**255**	mg/L	1	04/23/2026 18:56	255438
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 18:56	255438
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 18:56	255438
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 18:56	255438
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 18:56	255438
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**13.6**	µg/L	5	05/18/2026 20:38	256647
Arsenic	NELAP	1.0		**3.0**	µg/L	5	05/03/2026 17:55	255438
Lithium	*	3.0		**11.3**	µg/L	5	05/14/2026 9:05	255438
Selenium	NELAP	1.0		**2.5**	µg/L	5	05/03/2026 17:55	255438
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/03/2026 17:55	255438
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:02	255467
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.490**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223
Radium-228 Uncertainty	*	0		**0.420**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 04/21/2026 12:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	04/21/2026 12:27	R383248
Depth to water	*	-5.00		**4.82**	ft	1	04/21/2026 12:27	R383248
Depth to water from measuring point	*	0		**7.32**	ft	1	04/21/2026 12:27	R383248
Elevation of groundwater surface	*	0		**528.78**	ft	1	04/21/2026 12:27	R383248
Measuring Point Elevation	*	0		**536.10**	ft	1	04/21/2026 12:27	R383248
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	04/21/2026 12:27	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**30**	NTU	1	04/21/2026 12:27	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.5**	°F	1	04/21/2026 12:27	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.50**		1	04/21/2026 12:27	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1410**	µmhos/cm @25C	1	04/21/2026 12:27	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1370**	mg/L	1	04/23/2026 9:51	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 12:48	R382935
Chloride	NELAP	5.00		**34.9**	mg/L	10	04/26/2026 12:48	R382935
Sulfate	NELAP	10.0		**424**	mg/L	10	04/26/2026 12:48	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**81.7**	µg/L	1	04/23/2026 21:15	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:15	255378
Boron	NELAP	20.0		**3600**	µg/L	1	04/23/2026 21:15	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:15	255378
Calcium	NELAP	0.100		**231**	mg/L	1	04/23/2026 21:15	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:15	255378
Cobalt	NELAP	5.0		**7.2**	µg/L	1	04/23/2026 21:15	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:15	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:15	255378
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**7.0**	µg/L	5	05/20/2026 14:25	255378
Arsenic	NELAP	1.0		**1.9**	µg/L	5	05/17/2026 12:38	255378
Lithium	*	3.0		**5.8**	µg/L	5	05/04/2026 18:51	255378
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/09/2026 0:40	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 22:38	255378
Contamination present in the CCB for Se. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 16:37	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.460**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 04/21/2026 12:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.420**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 04/21/2026 13:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	04/21/2026 13:02	R383248
Depth to water	*	-5.00		**6.75**	ft	1	04/21/2026 13:02	R383248
Depth to water from measuring point	*	0		**9.30**	ft	1	04/21/2026 13:02	R383248
Elevation of groundwater surface	*	0		**525.95**	ft	1	04/21/2026 13:02	R383248
Measuring Point Elevation	*	0		**535.25**	ft	1	04/21/2026 13:02	R383248
Measuring Point Height Above Land Surface	*	0		**2.55**	ft	1	04/21/2026 13:02	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**100**	NTU	1	04/21/2026 13:02	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.4**	°F	1	04/21/2026 13:02	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.56**		1	04/21/2026 13:02	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1460**	µmhos/cm @25C	1	04/21/2026 13:02	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1360**	mg/L	1	04/23/2026 10:11	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 13:00	R382935
Chloride	NELAP	5.00		**66.4**	mg/L	10	04/26/2026 13:00	R382935
Sulfate	NELAP	10.0		**592**	mg/L	10	04/26/2026 13:00	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**140**	µg/L	1	04/23/2026 21:25	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:25	255378
Boron	NELAP	20.0		**16300**	µg/L	1	04/23/2026 21:25	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:25	255378
Calcium	NELAP	0.100		**207**	mg/L	1	04/23/2026 21:25	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:25	255378
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:25	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:25	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:25	255378
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**6.3**	µg/L	5	05/20/2026 14:28	255378
Arsenic	NELAP	1.0		**22.0**	µg/L	5	05/15/2026 22:42	255378
Lithium	*	3.0		**4.2**	µg/L	5	05/04/2026 18:56	255378
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/09/2026 0:45	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 22:42	255378

Sample result(s) for As exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.
Contamination present in the CCB for Se. Sample results below the reporting limit are reportable per the TNI Standard.

SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 16:39	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**2.45**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.650**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	05/05/2026 8:35	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 04/21/2026 13:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	1.00		**2.45**	pci/L	1	05/04/2026 13:02	R384223
Radium-228 Uncertainty	*	0		**0.590**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-005
Client Sample ID: AP-4
Matrix: GROUNDWATER
Collection Date: 04/21/2026 9:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.19**	ft	1	04/21/2026 9:59	R383248
Depth to water	*	-5.00		**7.68**	ft	1	04/21/2026 9:59	R383248
Depth to water from measuring point	*	0		**10.82**	ft	1	04/21/2026 9:59	R383248
Elevation of groundwater surface	*	0		**544.78**	ft	1	04/21/2026 9:59	R383248
Measuring Point Elevation	*	0		**555.60**	ft	1	04/21/2026 9:59	R383248
Measuring Point Height Above Land Surface	*	0		**3.14**	ft	1	04/21/2026 9:59	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**22**	NTU	1	04/21/2026 9:59	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.5**	°F	1	04/21/2026 9:59	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.82**		1	04/21/2026 9:59	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**922**	µmhos/cm @25C	1	04/21/2026 9:59	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**520**	mg/L	1	04/23/2026 10:11	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 13:51	R382935
Chloride	NELAP	5.00		**12.3**	mg/L	10	04/26/2026 13:51	R382935
Sulfate	NELAP	10.0		**ND**	mg/L	10	04/26/2026 13:51	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**431**	µg/L	1	04/23/2026 21:26	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:26	255378
Boron	NELAP	20.0		**92.3**	µg/L	1	04/23/2026 21:26	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:26	255378
Calcium	NELAP	0.100		**136**	mg/L	1	04/23/2026 21:26	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:26	255378
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:26	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:26	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:26	255378
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**6.2**	µg/L	5	05/20/2026 14:32	255378
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2026 22:45	255378
Lithium	*	3.0		**5.8**	µg/L	5	05/04/2026 19:00	255378
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/17/2026 12:45	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 22:45	255378
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 16:45	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.550**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**1.23**	pci/L	1	05/04/2026 13:02	R384223
Radium-228 Uncertainty	*	0		**0.480**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power **Work Order:** 26041298

Client Project: Ash Pond Monitoring Wells **Report Date:** 22-May-26

Lab ID: 26041298-006 **Client Sample ID:** AP-5

Matrix: GROUNDWATER **Collection Date:** 04/21/2026 12:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**552.63**	ft	1	04/21/2026 12:00	R383248
Depth to water	*	-5.00		**12.36**	ft	1	04/21/2026 12:00	R383248
Depth to water from measuring point	*	0		**14.66**	ft	1	04/21/2026 12:00	R383248
Elevation of groundwater surface	*	0		**569.24**	ft	1	04/21/2026 12:00	R383248
Measuring Point Elevation	*	0		**583.90**	ft	1	04/21/2026 12:00	R383248
Measuring Point Height Above Land Surface	*	0		**2.30**	ft	1	04/21/2026 12:00	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.0**	NTU	1	04/21/2026 12:00	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.6**	°F	1	04/21/2026 12:00	R383248
SW-846 9040B								
pH, Field	*	1.00		**7.01**		1	04/21/2026 12:00	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**553**	µmhos/cm @25C	1	04/21/2026 12:00	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**588**	mg/L	1	04/23/2026 10:11	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 14:04	R382935
Chloride	NELAP	5.00		**8.09**	mg/L	10	04/26/2026 14:04	R382935
Sulfate	NELAP	10.0		**70.8**	mg/L	10	04/26/2026 14:04	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**59.5**	µg/L	1	04/23/2026 21:28	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:28	255378
Boron	NELAP	20.0		**42.0**	µg/L	1	04/23/2026 21:28	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:28	255378
Calcium	NELAP	0.100		**114**	mg/L	1	04/23/2026 21:28	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:28	255378
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:28	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:28	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:28	255378
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**6.6**	µg/L	5	05/20/2026 14:36	255378
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/17/2026 12:49	255378
Lithium	*	3.0		**< 3.0**	µg/L	5	05/04/2026 19:04	255378
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/09/2026 0:54	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 22:49	255378
Contamination present in the CCB for Se. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 16:47	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.340**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-006
Client Sample ID: AP-5
Matrix: GROUNDWATER
Collection Date: 04/21/2026 12:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.300**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-007
Client Sample ID: AP-6
Matrix: GROUNDWATER
Collection Date: 04/21/2026 11:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.20**	ft	1	04/21/2026 11:17	R383248
Depth to water	*	-5.00		**8.30**	ft	1	04/21/2026 11:17	R383248
Depth to water from measuring point	*	0		**10.72**	ft	1	04/21/2026 11:17	R383248
Elevation of groundwater surface	*	0		**527.10**	ft	1	04/21/2026 11:17	R383248
Measuring Point Elevation	*	0		**537.82**	ft	1	04/21/2026 11:17	R383248
Measuring Point Height Above Land Surface	*	0		**2.42**	ft	1	04/21/2026 11:17	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**21**	NTU	1	04/21/2026 11:17	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.7**	°F	1	04/21/2026 11:17	R383248
SW-846 9040B								
pH, Field	*	1.00		**7.20**		1	04/21/2026 11:17	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**757**	µmhos/cm @25C	1	04/21/2026 11:17	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**478**	mg/L	1	04/23/2026 10:11	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**0.53**	mg/L	10	04/26/2026 14:42	R382935
Chloride	NELAP	5.00		**34.3**	mg/L	10	04/26/2026 14:42	R382935
Sulfate	NELAP	10.0		**ND**	mg/L	10	04/26/2026 14:42	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**156**	µg/L	1	04/23/2026 21:30	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:30	255378
Boron	NELAP	20.0		**268**	µg/L	1	04/23/2026 21:30	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:30	255378
Calcium	NELAP	0.100		**73.9**	mg/L	1	04/23/2026 21:30	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:30	255378
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:30	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:30	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:30	255378
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**6.9**	µg/L	5	05/20/2026 14:40	255378
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2026 22:53	255378
Lithium	*	3.0		**8.1**	µg/L	5	05/04/2026 19:09	255378
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/09/2026 0:59	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 22:53	255378
Contamination present in the CCB for Se. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 16:50	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.250**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-007
Client Sample ID: AP-6
Matrix: GROUNDWATER
Collection Date: 04/21/2026 11:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.210**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 04/21/2026 11:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	04/21/2026 11:17	R383248
Depth to water	*	-5.00		**10.16**	ft	1	04/21/2026 11:17	R383248
Depth to water from measuring point	*	0		**12.82**	ft	1	04/21/2026 11:17	R383248
Elevation of groundwater surface	*	0		**526.20**	ft	1	04/21/2026 11:17	R383248
Measuring Point Elevation	*	0		**539.02**	ft	1	04/21/2026 11:17	R383248
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	04/21/2026 11:17	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.3**	NTU	1	04/21/2026 11:17	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.3**	°F	1	04/21/2026 11:17	R383248
SW-846 9040B								
pH, Field	*	1.00		**7.04**		1	04/21/2026 11:17	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**614**	µmhos/cm @25C	1	04/21/2026 11:17	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**508**	mg/L	1	04/23/2026 10:12	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 14:54	R382935
Chloride	NELAP	5.00		**47.7**	mg/L	10	04/26/2026 14:54	R382935
Sulfate	NELAP	10.0		**27.1**	mg/L	10	04/26/2026 14:54	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**127**	µg/L	1	04/23/2026 22:00	255376
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 22:00	255376
Boron	NELAP	20.0		**279**	µg/L	1	04/23/2026 22:00	255376
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 22:00	255376
Calcium	NELAP	0.100		**85.7**	mg/L	1	04/23/2026 22:00	255376
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:00	255376
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:00	255376
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 22:00	255376
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 22:00	255376
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:02	255376
Arsenic	NELAP	1.0		**22.2**	µg/L	5	05/01/2026 23:02	255376
Lithium	*	3.0		**8.0**	µg/L	5	05/01/2026 23:02	255376
Selenium	NELAP	1.0		**2.4**	µg/L	5	05/01/2026 23:02	255376
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/01/2026 23:02	255376
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 16:52	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.460**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223
Radium-228 Uncertainty	*	0		**0.410**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 04/21/2026 11:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	04/21/2026 11:56	R383248
Depth to water	*	-5.00		**3.03**	ft	1	04/21/2026 11:56	R383248
Depth to water from measuring point	*	0		**5.93**	ft	1	04/21/2026 11:56	R383248
Elevation of groundwater surface	*	0		**531.27**	ft	1	04/21/2026 11:56	R383248
Measuring Point Elevation	*	0		**537.20**	ft	1	04/21/2026 11:56	R383248
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	04/21/2026 11:56	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**27**	NTU	1	04/21/2026 11:56	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.3**	°F	1	04/21/2026 11:56	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.99**		1	04/21/2026 11:56	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**941**	µmhos/cm @25C	1	04/21/2026 11:56	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**592**	mg/L	1	04/23/2026 10:12	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 15:07	R382935
Chloride	NELAP	5.00		**23.0**	mg/L	10	04/26/2026 15:07	R382935
Sulfate	NELAP	10.0		**ND**	mg/L	10	04/26/2026 15:07	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**393**	µg/L	1	04/23/2026 22:09	255376
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 22:09	255376
Boron	NELAP	20.0		**88.2**	µg/L	1	04/23/2026 22:09	255376
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 22:09	255376
Calcium	NELAP	0.100		**105**	mg/L	1	04/23/2026 22:09	255376
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:09	255376
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:09	255376
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 22:09	255376
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 22:09	255376
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:05	255376
Arsenic	NELAP	1.0		**36.6**	µg/L	5	05/01/2026 23:05	255376
Lithium	*	3.0		**7.4**	µg/L	5	05/01/2026 23:05	255376
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:05	255376
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/01/2026 23:05	255376
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 14:54	255492
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.480**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223
Radium-228 Uncertainty	*	0		**0.420**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-010
Client Sample ID: AP-9
Matrix: GROUNDWATER
Collection Date: 04/21/2026 9:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.70**	ft	1	04/21/2026 9:50	R383248
Depth to water	*	-5.00		**8.72**	ft	1	04/21/2026 9:50	R383248
Depth to water from measuring point	*	0		**11.82**	ft	1	04/21/2026 9:50	R383248
Elevation of groundwater surface	*	0		**528.48**	ft	1	04/21/2026 9:50	R383248
Measuring Point Elevation	*	0		**540.30**	ft	1	04/21/2026 9:50	R383248
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	04/21/2026 9:50	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**81**	NTU	1	04/21/2026 9:50	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.4**	°F	1	04/21/2026 9:50	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.74**		1	04/21/2026 9:50	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**770**	µmhos/cm @25C	1	04/21/2026 9:50	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**638**	mg/L	1	04/23/2026 10:25	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 15:20	R382935
Chloride	NELAP	5.00		**24.1**	mg/L	10	04/26/2026 15:20	R382935
Sulfate	NELAP	10.0		**14.1**	mg/L	10	04/26/2026 15:20	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**431**	µg/L	1	04/23/2026 22:11	255376
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 22:11	255376
Boron	NELAP	20.0		**107**	µg/L	1	04/23/2026 22:11	255376
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 22:11	255376
Calcium	NELAP	0.100		**114**	mg/L	1	04/23/2026 22:11	255376
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:11	255376
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:11	255376
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 22:11	255376
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 22:11	255376
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:07	255376
Arsenic	NELAP	1.0		**1.2**	µg/L	5	05/01/2026 23:07	255376
Lithium	*	3.0		**7.1**	µg/L	5	05/01/2026 23:07	255376
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:07	255376
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/01/2026 23:07	255376
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 17:00	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.450**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223
Radium-228 Uncertainty	*	0		**0.370**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-011
Client Sample ID: AP10
Matrix: GROUNDWATER
Collection Date: 04/22/2026 10:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**499.43**	ft	1	04/22/2026 10:17	R383248
Depth to water	*	-5.00		**1.50**	ft	1	04/22/2026 10:17	R383248
Depth to water from measuring point	*	0		**4.60**	ft	1	04/22/2026 10:17	R383248
Elevation of groundwater surface	*	0		**532.90**	ft	1	04/22/2026 10:17	R383248
Measuring Point Elevation	*	0		**537.50**	ft	1	04/22/2026 10:17	R383248
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	04/22/2026 10:17	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.6**	NTU	1	04/22/2026 10:17	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.8**	°F	1	04/22/2026 10:17	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.51**		1	04/22/2026 10:17	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**901**	µmhos/cm @25C	1	04/22/2026 10:17	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**824**	mg/L	1	04/23/2026 10:26	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 15:32	R382935
Chloride	NELAP	5.00		**25.3**	mg/L	10	04/26/2026 15:32	R382935
Sulfate	NELAP	10.0		**88.5**	mg/L	10	04/26/2026 15:32	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**602**	µg/L	1	04/23/2026 18:58	255438
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 18:58	255438
Boron	NELAP	20.0		**3700**	µg/L	1	04/23/2026 18:58	255438
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 18:58	255438
Calcium	NELAP	0.100		**138**	mg/L	1	04/23/2026 18:58	255438
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 18:58	255438
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 18:58	255438
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 18:58	255438
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 18:58	255438
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**13.6**	µg/L	5	05/18/2026 20:42	256647
Arsenic	NELAP	1.0		**1.7**	µg/L	5	05/03/2026 17:59	255438
Lithium	*	3.0		**7.1**	µg/L	5	05/21/2026 11:19	256647
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/03/2026 17:59	255438
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/03/2026 17:59	255438
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:04	255467
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.470**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.090**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223
Radium-228 Uncertainty	*	0		**0.380**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-012
Client Sample ID: AP11
Matrix: GROUNDWATER
Collection Date: 04/21/2026 10:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.15**	ft	1	04/21/2026 10:00	R383248
Depth to water	*	-5.00		**11.23**	ft	1	04/21/2026 10:00	R383248
Depth to water from measuring point	*	0		**14.03**	ft	1	04/21/2026 10:00	R383248
Elevation of groundwater surface	*	0		**524.07**	ft	1	04/21/2026 10:00	R383248
Measuring Point Elevation	*	0		**538.10**	ft	1	04/21/2026 10:00	R383248
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	04/21/2026 10:00	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.8**	NTU	1	04/21/2026 10:00	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.8**	°F	1	04/21/2026 10:00	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.34**		1	04/21/2026 10:00	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**985**	µmhos/cm @25C	1	04/21/2026 10:00	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**728**	mg/L	1	04/23/2026 10:26	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 15:45	R382935
Chloride	NELAP	5.00		**111**	mg/L	10	04/26/2026 15:45	R382935
Sulfate	NELAP	10.0		**66.5**	mg/L	10	04/26/2026 15:45	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**125**	µg/L	1	04/23/2026 21:31	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:31	255378
Boron	NELAP	20.0		**260**	µg/L	1	04/23/2026 21:31	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:31	255378
Calcium	NELAP	0.100		**146**	mg/L	1	04/23/2026 21:31	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:31	255378
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:31	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:31	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:31	255378
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**7.5**	µg/L	5	05/20/2026 14:44	255378
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2026 22:57	255378
Lithium	*	3.0		**5.4**	µg/L	5	05/04/2026 19:13	255378
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/09/2026 1:03	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 22:57	255378
Contamination present in the CCB for Se. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 17:02	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.370**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.030**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-012
Client Sample ID: AP11
Matrix: GROUNDWATER
Collection Date: 04/21/2026 10:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.340**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power **Work Order:** 26041298

Client Project: Ash Pond Monitoring Wells **Report Date:** 22-May-26

Lab ID: 26041298-013 **Client Sample ID:** AP12

Matrix: GROUNDWATER **Collection Date:** 04/21/2026 11:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**510.30**	ft	1	04/21/2026 11:15	R383248
Depth to water	*	-5.00		**12.77**	ft	1	04/21/2026 11:15	R383248
Depth to water from measuring point	*	0		**15.67**	ft	1	04/21/2026 11:15	R383248
Elevation of groundwater surface	*	0		**525.03**	ft	1	04/21/2026 11:15	R383248
Measuring Point Elevation	*	0		**540.70**	ft	1	04/21/2026 11:15	R383248
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	04/21/2026 11:15	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**80**	NTU	1	04/21/2026 11:15	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.7**	°F	1	04/21/2026 11:15	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.35**		1	04/21/2026 11:15	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1330**	µmhos/cm @25C	1	04/21/2026 11:15	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1240**	mg/L	1	04/23/2026 10:26	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 16:36	R382935
Chloride	NELAP	5.00		**110**	mg/L	10	04/26/2026 16:36	R382935
Sulfate	NELAP	10.0		**375**	mg/L	10	04/26/2026 16:36	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**66.7**	µg/L	1	04/23/2026 21:33	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:33	255378
Boron	NELAP	20.0		**27.2**	µg/L	1	04/23/2026 21:33	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:33	255378
Calcium	NELAP	0.100	S	**198**	mg/L	1	04/23/2026 21:33	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:33	255378
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:33	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:33	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:33	255378
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**6.8**	µg/L	5	05/20/2026 14:47	255378
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2026 23:06	255378
Lithium	*	3.0		**4.7**	µg/L	5	05/04/2026 19:17	255378
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2026 23:06	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 23:06	255378
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 17:04	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.430**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-013
Client Sample ID: AP12
Matrix: GROUNDWATER
Collection Date: 04/21/2026 11:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.390**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power **Work Order:** 26041298

Client Project: Ash Pond Monitoring Wells **Report Date:** 22-May-26

Lab ID: 26041298-014 **Client Sample ID:** AP13

Matrix: GROUNDWATER **Collection Date:** 04/21/2026 11:44

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.00**	ft	1	04/21/2026 11:44	R383248
Depth to water	*	-5.00		**13.64**	ft	1	04/21/2026 11:44	R383248
Depth to water from measuring point	*	0		**17.04**	ft	1	04/21/2026 11:44	R383248
Elevation of groundwater surface	*	0		**524.96**	ft	1	04/21/2026 11:44	R383248
Measuring Point Elevation	*	0		**542.00**	ft	1	04/21/2026 11:44	R383248
Measuring Point Height Above Land Surface	*	0		**3.40**	ft	1	04/21/2026 11:44	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.2**	NTU	1	04/21/2026 11:44	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.0**	°F	1	04/21/2026 11:44	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.58**		1	04/21/2026 11:44	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**751**	µmhos/cm @25C	1	04/21/2026 11:44	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**642**	mg/L	1	04/23/2026 10:26	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 17:01	R382935
Chloride	NELAP	5.00		**25.1**	mg/L	10	04/26/2026 17:01	R382935
Sulfate	NELAP	10.0		**100**	mg/L	10	04/26/2026 17:01	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**119**	µg/L	1	04/23/2026 21:38	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:38	255378
Boron	NELAP	20.0		**38.8**	µg/L	1	04/23/2026 21:38	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:38	255378
Calcium	NELAP	0.100		**117**	mg/L	1	04/23/2026 21:38	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:38	255378
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:38	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:38	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:38	255378
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**6.4**	µg/L	5	05/20/2026 14:57	255378
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/17/2026 13:37	255378
Lithium	*	3.0		**10.5**	µg/L	5	05/04/2026 19:42	255378
Selenium	NELAP	1.0		**2.9**	µg/L	5	05/09/2026 1:21	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 23:10	255378
Sample result(s) for Se exceed 10 times the CCB. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 17:11	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.440**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-014
Client Sample ID: AP13
Matrix: GROUNDWATER
Collection Date: 04/21/2026 11:44

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.380**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-015
Client Sample ID: AP14
Matrix: GROUNDWATER
Collection Date: 04/21/2026 12:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**508.40**	ft	1	04/21/2026 12:35	R383248
Depth to water	*	-5.00		**-0.19**	ft	1	04/21/2026 12:35	R383248
Depth to water from measuring point	*	0		**2.61**	ft	1	04/21/2026 12:35	R383248
Elevation of groundwater surface	*	0		**536.99**	ft	1	04/21/2026 12:35	R383248
Measuring Point Elevation	*	0		**539.60**	ft	1	04/21/2026 12:35	R383248
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	04/21/2026 12:35	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.4**	NTU	1	04/21/2026 12:35	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.6**	°F	1	04/21/2026 12:35	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.91**		1	04/21/2026 12:35	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1510**	µmhos/cm @25C	1	04/21/2026 12:35	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**2200**	mg/L	1	04/23/2026 10:26	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 17:14	R382935
Chloride	NELAP	5.00		**121**	mg/L	10	04/26/2026 17:14	R382935
Sulfate	NELAP	10.0		**1070**	mg/L	10	04/26/2026 17:14	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**52.1**	µg/L	1	04/23/2026 21:47	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:47	255378
Boron	NELAP	200		**25900**	µg/L	10	04/27/2026 15:48	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:47	255378
Calcium	NELAP	0.100		**326**	mg/L	1	04/23/2026 21:47	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:47	255378
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:47	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:47	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:47	255378
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**7.1**	µg/L	5	05/20/2026 15:28	255378
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2026 23:40	255378
Lithium	*	3.0		**7.0**	µg/L	5	05/04/2026 19:47	255378
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/09/2026 1:26	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 23:40	255378
Contamination present in the CCB for Se. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 17:13	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.320**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-015
Client Sample ID: AP14
Matrix: GROUNDWATER
Collection Date: 04/21/2026 12:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.270**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-016
Client Sample ID: T-01
Matrix: GROUNDWATER
Collection Date: 04/21/2026 12:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**512.70**	ft	1	04/21/2026 12:20	R383248
Depth to water	*	-5.00		**12.49**	ft	1	04/21/2026 12:20	R383248
Depth to water from measuring point	*	0		**12.82**	ft	1	04/21/2026 12:20	R383248
Elevation of groundwater surface	*	0		**522.83**	ft	1	04/21/2026 12:20	R383248
Measuring Point Elevation	*	0		**535.65**	ft	1	04/21/2026 12:20	R383248
Measuring Point Height Above Land Surface	*	0		**0.33**	ft	1	04/21/2026 12:20	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**13**	NTU	1	04/21/2026 12:20	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.8**	°F	1	04/21/2026 12:20	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.34**		1	04/21/2026 12:20	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1270**	µmhos/cm @25C	1	04/21/2026 12:20	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**946**	mg/L	1	04/23/2026 11:13	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 17:26	R382935
Chloride	NELAP	5.00		**233**	mg/L	10	04/26/2026 17:26	R382935
Sulfate	NELAP	10.0		**114**	mg/L	10	04/26/2026 17:26	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**65.7**	µg/L	1	04/23/2026 21:49	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:49	255378
Boron	NELAP	20.0		**214**	µg/L	1	04/23/2026 21:49	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:49	255378
Calcium	NELAP	0.100		**150**	mg/L	1	04/23/2026 21:49	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:49	255378
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:49	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:49	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:49	255378
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**7.1**	µg/L	5	05/20/2026 15:32	255378
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/17/2026 13:44	255378
Lithium	*	3.0		**12.8**	µg/L	5	05/04/2026 19:51	255378
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/09/2026 1:30	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 23:44	255378
Contamination present in the CCB for Se. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 17:15	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.470**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-016
Client Sample ID: T-01
Matrix: GROUNDWATER
Collection Date: 04/21/2026 12:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.410**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-017
Client Sample ID: T-02
Matrix: GROUNDWATER
Collection Date: 04/21/2026 10:34

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.18**	ft	1	04/21/2026 10:34	R383248
Depth to water	*	-5.00		**23.36**	ft	1	04/21/2026 10:34	R383248
Depth to water from measuring point	*	0		**25.76**	ft	1	04/21/2026 10:34	R383248
Elevation of groundwater surface	*	0		**523.86**	ft	1	04/21/2026 10:34	R383248
Measuring Point Elevation	*	0		**549.62**	ft	1	04/21/2026 10:34	R383248
Measuring Point Height Above Land Surface	*	0		**2.40**	ft	1	04/21/2026 10:34	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**3.3**	NTU	1	04/21/2026 10:34	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.0**	°F	1	04/21/2026 10:34	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.37**		1	04/21/2026 10:34	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1910**	µmhos/cm @25C	1	04/21/2026 10:34	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1780**	mg/L	1	04/23/2026 11:13	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 18:04	R382935
Chloride	NELAP	5.00		**535**	mg/L	10	04/26/2026 18:04	R382935
Sulfate	NELAP	10.0		**138**	mg/L	10	04/26/2026 18:04	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**226**	µg/L	1	04/23/2026 22:12	255376
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 22:12	255376
Boron	NELAP	20.0		**55.0**	µg/L	1	04/23/2026 22:12	255376
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 22:12	255376
Calcium	NELAP	0.100		**242**	mg/L	1	04/23/2026 22:12	255376
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:12	255376
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:12	255376
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 22:12	255376
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 22:12	255376
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:10	255376
Arsenic	NELAP	1.0		**4.3**	µg/L	5	05/01/2026 23:10	255376
Lithium	*	3.0		**37.2**	µg/L	5	05/01/2026 23:10	255376
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:10	255376
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/01/2026 23:10	255376
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 17:17	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Combined 226/228 Uncertainty	*	0		**0.140**	+/-	1	05/05/2026 8:35	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/05/2026 8:35	R384223
Radium-226 Uncertainty	*	0		**0.100**	+/-	1	05/05/2026 8:35	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/04/2026 13:02	R384223
Radium-228 Uncertainty	*	0		**0.400**	+/-	1	05/04/2026 13:02	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-018
Client Sample ID: T-04
Matrix: GROUNDWATER
Collection Date: 04/21/2026 10:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**521.52**	ft	1	04/21/2026 10:24	R383248
Depth to water	*	-5.00		**16.27**	ft	1	04/21/2026 10:24	R383248
Depth to water from measuring point	*	0		**18.65**	ft	1	04/21/2026 10:24	R383248
Elevation of groundwater surface	*	0		**530.29**	ft	1	04/21/2026 10:24	R383248
Measuring Point Elevation	*	0		**548.94**	ft	1	04/21/2026 10:24	R383248
Measuring Point Height Above Land Surface	*	0		**2.38**	ft	1	04/21/2026 10:24	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**12**	NTU	1	04/21/2026 10:24	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**56.3**	°F	1	04/21/2026 10:24	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.51**		1	04/21/2026 10:24	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**479**	µmhos/cm @25C	1	04/21/2026 10:24	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**554**	mg/L	1	04/23/2026 11:13	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 18:17	R382935
Chloride	NELAP	5.00		**ND**	mg/L	10	04/26/2026 18:17	R382935
Sulfate	NELAP	10.0		**127**	mg/L	10	04/26/2026 18:17	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**54.9**	µg/L	1	04/23/2026 22:14	255376
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 22:14	255376
Boron	NELAP	20.0		**63.8**	µg/L	1	04/23/2026 22:14	255376
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 22:14	255376
Calcium	NELAP	0.100	S	**96.1**	mg/L	1	04/23/2026 22:14	255376
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:14	255376
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:14	255376
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 22:14	255376
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 22:14	255376
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:13	255376
Arsenic	NELAP	1.0		**4.9**	µg/L	5	05/01/2026 23:13	255376
Lithium	*	3.0		**16.3**	µg/L	5	05/01/2026 23:13	255376
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:13	255376
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/01/2026 23:13	255376
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:15	255467
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/06/2026 6:28	R384223
Combined 226/228 Uncertainty	*	0		**0.660**	+/-	1	05/06/2026 6:28	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/06/2026 6:28	R384223
Radium-226 Uncertainty	*	0		**0.090**	+/-	1	05/06/2026 6:28	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/05/2026 13:50	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-018
Client Sample ID: T-04
Matrix: GROUNDWATER
Collection Date: 04/21/2026 10:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.570**	+/-	1	05/05/2026 13:50	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-019
Client Sample ID: T-05
Matrix: GROUNDWATER
Collection Date: 04/21/2026 10:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**518.32**	ft	1	04/21/2026 10:40	R383248
Depth to water	*	-5.00		**3.53**	ft	1	04/21/2026 10:40	R383248
Depth to water from measuring point	*	0		**6.04**	ft	1	04/21/2026 10:40	R383248
Elevation of groundwater surface	*	0		**534.62**	ft	1	04/21/2026 10:40	R383248
Measuring Point Elevation	*	0		**540.66**	ft	1	04/21/2026 10:40	R383248
Measuring Point Height Above Land Surface	*	0		**2.51**	ft	1	04/21/2026 10:40	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**15**	NTU	1	04/21/2026 10:40	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.3**	°F	1	04/21/2026 10:40	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.62**		1	04/21/2026 10:40	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**341**	µmhos/cm @25C	1	04/21/2026 10:40	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**344**	mg/L	1	04/23/2026 11:13	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 18:30	R382935
Chloride	NELAP	5.00		**ND**	mg/L	10	04/26/2026 18:30	R382935
Sulfate	NELAP	10.0		**39.3**	mg/L	10	04/26/2026 18:30	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**51.7**	µg/L	1	04/23/2026 22:19	255376
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 22:19	255376
Boron	NELAP	20.0		**74.5**	µg/L	1	04/23/2026 22:19	255376
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 22:19	255376
Calcium	NELAP	0.100		**58.6**	mg/L	1	04/23/2026 22:19	255376
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:19	255376
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 22:19	255376
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 22:19	255376
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 22:19	255376
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:21	255376
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/01/2026 23:21	255376
Lithium	*	3.0		**8.7**	µg/L	5	05/01/2026 23:21	255376
Selenium	NELAP	1.0		**2.3**	µg/L	5	05/01/2026 23:21	255376
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/01/2026 23:21	255376
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 17:19	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/06/2026 6:28	R384223
Combined 226/228 Uncertainty	*	0		**0.650**	+/-	1	05/06/2026 6:28	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/06/2026 6:28	R384223
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	05/06/2026 6:28	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/05/2026 13:50	R384223
Radium-228 Uncertainty	*	0		**0.580**	+/-	1	05/05/2026 13:50	R384223

Client: City Water, Light & Power **Work Order:** 26041298

Client Project: Ash Pond Monitoring Wells **Report Date:** 22-May-26

Lab ID: 26041298-020 **Client Sample ID:** T-06

Matrix: GROUNDWATER **Collection Date:** 04/21/2026 10:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**494.70**	ft	1	04/21/2026 10:54	R383248
Depth to water	*	-5.00		**9.62**	ft	1	04/21/2026 10:54	R383248
Depth to water from measuring point	*	0		**11.98**	ft	1	04/21/2026 10:54	R383248
Elevation of groundwater surface	*	0		**526.34**	ft	1	04/21/2026 10:54	R383248
Measuring Point Elevation	*	0		**538.32**	ft	1	04/21/2026 10:54	R383248
Measuring Point Height Above Land Surface	*	0		**2.36**	ft	1	04/21/2026 10:54	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.9**	NTU	1	04/21/2026 10:54	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.6**	°F	1	04/21/2026 10:54	R383248
SW-846 9040B								
pH, Field	*	1.00		**7.06**		1	04/21/2026 10:54	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**653**	µmhos/cm @25C	1	04/21/2026 10:54	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**584**	mg/L	1	04/23/2026 12:08	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 18:42	R382935
Chloride	NELAP	5.00		**19.6**	mg/L	10	04/26/2026 18:42	R382935
Sulfate	NELAP	10.0		**ND**	mg/L	10	04/26/2026 18:42	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**322**	µg/L	1	04/23/2026 21:50	255378
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 21:50	255378
Boron	NELAP	20.0		**220**	µg/L	1	04/23/2026 21:50	255378
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 21:50	255378
Calcium	NELAP	0.100	S	**97.2**	mg/L	1	04/23/2026 21:50	255378
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:50	255378
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 21:50	255378
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 21:50	255378
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 21:50	255378
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**7.0**	µg/L	5	05/20/2026 15:36	255378
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2026 23:53	255378
Lithium	*	3.0		**7.2**	µg/L	5	05/04/2026 19:55	255378
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/15/2026 23:53	255378
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/15/2026 23:53	255378
Contamination present in the MBLK for As. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/22/2026 17:21	255394
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/06/2026 6:28	R384223
Combined 226/228 Uncertainty	*	0		**0.770**	+/-	1	05/06/2026 6:28	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/06/2026 6:28	R384223
Radium-226 Uncertainty	*	0		**0.110**	+/-	1	05/06/2026 6:28	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-020
Client Sample ID: T-06
Matrix: GROUNDWATER
Collection Date: 04/21/2026 10:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	1.00		**ND**	pci/L	1	05/05/2026 13:50	R384223
Radium-228 Uncertainty	*	0		**0.660**	+/-	1	05/05/2026 13:50	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-021
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 04/23/2026 10:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	04/23/2026 10:02	R383248
Depth to water	*	-5.00		**12.21**	ft	1	04/23/2026 10:02	R383248
Depth to water from measuring point	*	0		**14.96**	ft	1	04/23/2026 10:02	R383248
Elevation of groundwater surface	*	0		**540.64**	ft	1	04/23/2026 10:02	R383248
Measuring Point Elevation	*	0		**555.60**	ft	1	04/23/2026 10:02	R383248
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	04/23/2026 10:02	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**63**	NTU	1	04/23/2026 10:02	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.6**	°F	1	04/23/2026 10:02	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.72**		1	04/23/2026 10:02	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1290**	µmhos/cm @25C	1	04/23/2026 10:02	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1180**	mg/L	1	04/27/2026 9:30	R383124
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 19:33	R382935
Chloride	NELAP	5.00		**36.5**	mg/L	10	04/26/2026 19:33	R382935
Sulfate	NELAP	10.0		**394**	mg/L	10	04/26/2026 19:33	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**118**	µg/L	1	05/01/2026 12:12	255531
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/01/2026 12:12	255531
Boron	NELAP	20.0		**10500**	µg/L	1	05/01/2026 12:12	255531
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/01/2026 12:12	255531
Calcium	NELAP	0.100		**195**	mg/L	1	04/27/2026 17:55	255531
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:12	255531
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:12	255531
Lead	NELAP	7.5		**< 7.5**	µg/L	1	05/01/2026 12:12	255531
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 12:12	255531
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/13/2026 18:02	255531
Arsenic	NELAP	1.0		**20.2**	µg/L	5	05/13/2026 18:02	255531
Lithium	*	3.0		**11.9**	µg/L	5	05/04/2026 23:14	255531
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/13/2026 18:02	255531
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/14/2026 23:40	255531
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/27/2026 16:19	255547
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	05/06/2026 6:28	R384223
Combined 226/228 Uncertainty	*	0		**0.640**	+/-	1	05/06/2026 6:28	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/06/2026 6:28	R384223
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	05/06/2026 6:28	R384223
Radium-228	*	1.00		**ND**	pci/L	1	05/05/2026 13:50	R384223
Radium-228 Uncertainty	*	0		**0.580**	+/-	1	05/05/2026 13:50	R384223

Client: City Water, Light & Power
Work Order: 26041298
Client Project: Ash Pond Monitoring Wells
Report Date: 22-May-26
Lab ID: 26041298-022
Client Sample ID: G120
Matrix: GROUNDWATER
Collection Date: 04/22/2026 10:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	04/22/2026 10:23	R383248
Depth to water	*	-5.00		**16.43**	ft	1	04/22/2026 10:23	R383248
Depth to water from measuring point	*	0		**16.43**	ft	1	04/22/2026 10:23	R383248
Elevation of groundwater surface	*	0		**536.67**	ft	1	04/22/2026 10:23	R383248
Measuring Point Elevation	*	0		**553.10**	ft	1	04/22/2026 10:23	R383248
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	04/22/2026 10:23	R383248
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**83**	NTU	1	04/22/2026 10:23	R383248
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.8**	°F	1	04/22/2026 10:23	R383248
SW-846 9040B								
pH, Field	*	1.00		**6.69**		1	04/22/2026 10:23	R383248
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1780**	µmhos/cm @25C	1	04/22/2026 10:23	R383248
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1630**	mg/L	1	04/23/2026 12:08	R382858
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 19:46	R382935
Chloride	NELAP	5.00		**36.0**	mg/L	10	04/26/2026 19:46	R382935
Sulfate	NELAP	10.0		**559**	mg/L	10	04/26/2026 19:46	R382935
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**502**	µg/L	1	04/23/2026 18:59	255438
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/23/2026 18:59	255438
Boron	NELAP	20.0		**7190**	µg/L	1	04/23/2026 18:59	255438
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/23/2026 18:59	255438
Calcium	NELAP	0.100		**250**	mg/L	1	04/23/2026 18:59	255438
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 18:59	255438
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/23/2026 18:59	255438
Lead	NELAP	7.5		**< 7.5**	µg/L	1	04/23/2026 18:59	255438
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	04/23/2026 18:59	255438
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**13.7**	µg/L	5	05/18/2026 20:45	256647
Arsenic	NELAP	1.0		**10.6**	µg/L	5	05/03/2026 18:03	255438
Lithium	*	3.0		**7.5**	µg/L	5	05/14/2026 9:12	255438
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	05/03/2026 18:03	255438
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/03/2026 18:03	255438
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:21	255467
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**2.72**	pci/L	1	05/06/2026 6:28	R384223
Combined 226/228 Uncertainty	*	0		**0.930**	+/-	1	05/06/2026 6:28	R384223
Radium-226	*	1.00		**ND**	pci/L	1	05/06/2026 6:28	R384223
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	05/06/2026 6:28	R384223
Radium-228	*	1.00		**2.72**	pci/L	1	05/05/2026 13:50	R384223
Radium-228 Uncertainty	*	0		**0.860**	+/-	1	05/05/2026 13:50	R384223

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26041298
Report Date: 22-May-26

Carrier: Allison Lampe

Received By: LEH

Completed by: Laura E Henson
On: 22-Apr-26

Reviewed by: Allison Simpson
On: 23-Apr-26

Pages to follow: Chain of custody 5 Extra pages included 70

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 2.4
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #104524. - lhenson - 4/22/2026 8:51:31 AM

Additional nitric acid (109879) was needed for T-04 and T-06 upon arrival at the laboratory. - lhenson - 4/22/2026 8:56:15 AM

Samples were received on 4/22/2026 at 14:57 on ice [10.4C, 13.6, 12.8 - LTG#9]. pH strip #104524. Additional nitric acid (109879) was needed for 2 of 3 1L AP10 and G120 upon arrival at the laboratory. - ekossakoski - 4/22/2026 4:03:50 PM

Samples were received on 4/23/2026 at 13:04 on ice [18.4C - LTG#9]. pH strip #104524. - CRS/ekossakoski - 4/23/2026 2:27:28 PM

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 26041298

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

5-2|4.4

Client: City Water, Light & Power

Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building

City/State/Zip: Springfield IL 62712

Contact: Eric Staley Phone: (217) 757-8610

Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE 2.4|0.2°C9

Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES: PW 104524

added HNO3 (109879) to T04, T06 LH 4/22/26

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No

Are these samples known to be hazardous? ☐ Yes ☑ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:

*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26041298-001	RW-3		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
002	AP-1		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
003	AP-2	4-21 1227	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
004	AP-3	4-21 1302	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
005	AP-4	4-21 959	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
006	AP-5	4-21 1200	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
007	AP-6	4-21 1117	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
008	AP-7	4-21 1117	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
009	AP-8	4-21 1156	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
010	AP-9	4-21 950	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
011	AP10		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
[signature]	4-21-26 1450	[signature]	4/21/26 1450

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 26041298

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

10.4, 13.6

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 12.8 °C 9
Preserved in: ☒ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: pH√ 104524 Added HNO3 (109879) to 2/3 IL APID: 6120 - EAF 4/22/26

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26041298-001	RW-3	4-22 1107	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
002	AP-1	4-22 1043	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
003	AP-2		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
004	AP-3		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
006	AP-5		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
007	AP-6		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
008	AP-7		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
009	AP-8		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
010	AP-9		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
011	AP10	4-22 1017	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	4/22/26 1457	Cindy Kamakasli	4/22/26 1457

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 26041298

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26041298-012	AP11	4-21 1000	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
013	AP12	4-21 1115	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
014	AP13	4-21 1144	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
015	AP14	4-21 1235	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
016	T-01	4-21 1220	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
017	T-02	4-21 1034	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
018	T-04	4-21 1024	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
019	T-05	4-21 1040	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
020	T-06	4-21 1054	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
021	AW-1		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
022	G120		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
Allen Lane	4-21-26 1450	[signature]	4/21/26 1450

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 26041298

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 18.4 °C #9
Preserved in: ☐ LAB ☒ FIELD FOR LAB USE ONLY
LAB NOTES: PHV 104524 CRS 4.23.26

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	CI F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26041298-012	AP11		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
013	AP12		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
014	AP13		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
015	AP14		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
016	T-01		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
017	T-02		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
018	T-04		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
019	T-05		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
020	T-06		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
021	AW-1	4-23 1002	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
022	G120		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	4-23-26 1304	Caroline Spencer	4-23-26 1304

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 26041298

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26041298-012	AP11		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
013	AP12		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
014	AP13		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
015	AP14		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
016	T-01		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
017	T-02		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
018	T-04		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
019	T-05		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
020	T-06		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
021	AW-1		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
022	G120	4-22 1023	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	4/22/26 1457	Cindy Kovakovski	4/22/26 1457

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Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

May 17, 2026

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 26041298

Order No.: 26042100

Dear Shelly Hennessy:

Alliance Technical Group - Akron received 22 sample(s) on 4/27/2026 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0828, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **26042100**
Date: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298

WorkOrder Narrative:
26042100: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence Sample Notes:
26042100-001A Radium-228_NPW(904.0): Parent sample and duplicate exhibit a high RPD, results are below reporting limit and do not need reanalysis.

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

Qualifiers and Acronyms

WO#: **26042100**
Date: **5/17/2026**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

Workorder Sample Summary

WO#: **26042100**

17-May-26

CLIENT: TEKLAB Inc,
Project: 26041298

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
26042100-001	26041298-001		4/22/2026 11:07:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-002	26041298-002		4/22/2026 10:43:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-003	26041298-003		4/21/2026 12:27:00 PM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-004	26041298-004		4/21/2026 1:02:00 PM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-005	26041298-005		4/21/2026 9:59:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-006	26041298-006		4/21/2026 12:00:00 PM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-007	26041298-007		4/21/2026 11:17:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-008	26041298-008		4/21/2026 11:17:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-009	26041298-009		4/21/2026 11:56:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-010	26041298-010		4/21/2026 9:50:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-011	26041298-011		4/22/2026 10:17:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-012	26041298-012		4/21/2026 10:00:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-013	26041298-013		4/21/2026 11:15:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-014	26041298-014		4/21/2026 11:44:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-015	26041298-015		4/21/2026 12:35:00 PM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-016	26041298-016		4/21/2026 12:20:00 PM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-017	26041298-017		4/21/2026 10:34:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-018	26041298-018		4/21/2026 10:24:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-019	26041298-019		4/21/2026 10:40:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-020	26041298-020		4/21/2026 10:54:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-021	26041298-021		4/23/2026 10:02:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water
26042100-022	26041298-022		4/22/2026 10:23:00 AM	4/27/2026 11:00:00 AM	Non-Potable Water

Alliance Technical Group - Akron
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Website: http://www.settek.com

DATES REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26042100-001A	26041298-001	4/22/2026 11:07:00 AM	Non-Potable Water	Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-002A	26041298-002	4/22/2026 10:43:00 AM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-003A	26041298-003	4/21/2026 12:27:00 PM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-004A	26041298-004	4/21/2026 1:02:00 PM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-005A	26041298-005	4/21/2026 9:59:00 AM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-006A	26041298-006	4/21/2026 12:00:00 PM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-007A	26041298-007	4/21/2026 11:17:00 AM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-008A	26041298-008			Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM

Original

Alliance Technical Group - Akron
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26042100-008A	26041298-008	4/21/2026 11:17:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-009A	26041298-009	4/21/2026 11:56:00 AM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-010A	26041298-010	4/21/2026 9:50:00 AM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-011A	26041298-011	4/22/2026 10:17:00 AM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-012A	26041298-012	4/21/2026 10:00:00 AM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-013A	26041298-013	4/21/2026 11:15:00 AM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-014A	26041298-014	4/21/2026 11:44:00 AM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-015A	26041298-015	4/21/2026 12:35:00 PM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-016A	26041298-016	4/21/2026 12:20:00 PM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM

Original

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DATES REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26042100-016A	26041298-016	4/21/2026 12:20:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-017A	26041298-017	4/21/2026 10:34:00 AM		Combined Radium (EPA903+904)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 10:24:38 AM	5/5/2026 8:35:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 10:24:38 AM	5/4/2026 1:02:00 PM
26042100-018A	26041298-018	4/21/2026 10:24:00 AM		Combined Radium (EPA903+904)		4/29/2026 1:20:56 PM	5/6/2026 6:28:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 1:20:56 PM	5/6/2026 6:28:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 1:20:56 PM	5/5/2026 1:50:00 PM
26042100-019A	26041298-019	4/21/2026 10:40:00 AM		Combined Radium (EPA903+904)		4/29/2026 1:20:56 PM	5/6/2026 6:28:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 1:20:56 PM	5/6/2026 6:28:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 1:20:56 PM	5/5/2026 1:50:00 PM
26042100-020A	26041298-020	4/21/2026 10:54:00 AM		Combined Radium (EPA903+904)		4/29/2026 1:20:56 PM	5/6/2026 6:28:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 1:20:56 PM	5/6/2026 6:28:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 1:20:56 PM	5/5/2026 1:50:00 PM
26042100-021A	26041298-021	4/23/2026 10:02:00 AM		Combined Radium (EPA903+904)		4/29/2026 1:20:56 PM	5/6/2026 6:28:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 1:20:56 PM	5/6/2026 6:28:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 1:20:56 PM	5/5/2026 1:50:00 PM
26042100-022A	26041298-022	4/22/2026 10:23:00 AM		Combined Radium (EPA903+904)		4/29/2026 1:20:56 PM	5/6/2026 6:28:00 AM
				Radium-226 (EPA 903.0)		4/29/2026 1:20:56 PM	5/6/2026 6:28:00 AM
				Radium-228 (EPA 904.0)		4/29/2026 1:20:56 PM	5/5/2026 1:50:00 PM

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-001
Client Sample ID: 26041298-001

Collection Date: 4/22/2026 11:07:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.310	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0500	1	5/5/2026 8:35:00 AM
Yield	1.00					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00	QDR	pCi/L	± 0.260	1	5/4/2026 1:02:00 PM
Yield	0.990					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-002
Client Sample ID: 26041298-002

Collection Date: 4/22/2026 10:43:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.490	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	5/5/2026 8:35:00 AM
Yield	0.990					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.420	1	5/4/2026 1:02:00 PM
Yield	1.00					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

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WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-003
Client Sample ID: 26041298-003

Collection Date: 4/21/2026 12:27:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.460	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0400	1	5/5/2026 8:35:00 AM
Yield	0.960					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.420	1	5/4/2026 1:02:00 PM
Yield	0.860					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-004
Client Sample ID: 26041298-004

Collection Date: 4/21/2026 1:02:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	2.45	2.00		pCi/L	± 0.650	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	5/5/2026 8:35:00 AM
Yield	0.980					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	2.45	1.00		pCi/L	± 0.590	1	5/4/2026 1:02:00 PM
Yield	0.990					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-005
Client Sample ID: 26041298-005

Collection Date: 4/21/2026 9:59:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.550	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	5/5/2026 8:35:00 AM
Yield	0.970					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	1.23	1.00		pCi/L	± 0.480	1	5/4/2026 1:02:00 PM
Yield	0.940					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-006
Client Sample ID: 26041298-006

Collection Date: 4/21/2026 12:00:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.340	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0400	1	5/5/2026 8:35:00 AM
Yield	1.00					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.300	1	5/4/2026 1:02:00 PM
Yield	0.990					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-007
Client Sample ID: 26041298-007

Collection Date: 4/21/2026 11:17:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.250	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0400	1	5/5/2026 8:35:00 AM
Yield	1.00					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.210	1	5/4/2026 1:02:00 PM
Yield	1.00					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-008
Client Sample ID: 26041298-008

Collection Date: 4/21/2026 11:17:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.460	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0500	1	5/5/2026 8:35:00 AM
Yield	0.930					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.410	1	5/4/2026 1:02:00 PM
Yield	0.770					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-009
Client Sample ID: 26041298-009

Collection Date: 4/21/2026 11:56:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.480	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	5/5/2026 8:35:00 AM
Yield	1.00					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.420	1	5/4/2026 1:02:00 PM
Yield	1.00					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-010
Client Sample ID: 26041298-010

Collection Date: 4/21/2026 9:50:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.450	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0800	1	5/5/2026 8:35:00 AM
Yield	1.00					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.370	1	5/4/2026 1:02:00 PM
Yield	1.00					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-011
Client Sample ID: 26041298-011

Collection Date: 4/22/2026 10:17:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.470	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0900	1	5/5/2026 8:35:00 AM
Yield	0.990					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.380	1	5/4/2026 1:02:00 PM
Yield	0.940					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,

Collection Date: 4/21/2026 10:00:00 AM

Project: 26041298

Lab ID: 26042100-012

Matrix: NON-POTABLE WATER

Client Sample ID: 26041298-012

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **OS**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.370	1	5/5/2026 8:35:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **OS**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0300	1	5/5/2026 8:35:00 AM
Yield	1.00					1	5/5/2026 8:35:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **OS**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.340	1	5/4/2026 1:02:00 PM
Yield	1.00					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-013
Client Sample ID: 26041298-013

Collection Date: 4/21/2026 11:15:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.430	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0400	1	5/5/2026 8:35:00 AM
Yield	0.980					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.390	1	5/4/2026 1:02:00 PM
Yield	0.980					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-014
Client Sample ID: 26041298-014

Collection Date: 4/21/2026 11:44:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.440	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	5/5/2026 8:35:00 AM
Yield	0.930					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.380	1	5/4/2026 1:02:00 PM
Yield	0.920					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-015
Client Sample ID: 26041298-015

Collection Date: 4/21/2026 12:35:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.320	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0500	1	5/5/2026 8:35:00 AM
Yield	0.990					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.270	1	5/4/2026 1:02:00 PM
Yield	0.990					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

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WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-016
Client Sample ID: 26041298-016

Collection Date: 4/21/2026 12:20:00 PM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.470	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	5/5/2026 8:35:00 AM
Yield	0.890					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.410	1	5/4/2026 1:02:00 PM
Yield	0.870					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

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WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-017
Client Sample ID: 26041298-017

Collection Date: 4/21/2026 10:34:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **OS**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.140	1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **OS**
Radium-226	ND	1.00		pCi/L	± 0.100	1	5/5/2026 8:35:00 AM
Yield	0.970					1	5/5/2026 8:35:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **OS**
Radium-228	ND	1.00		pCi/L	± 0.400	1	5/4/2026 1:02:00 PM
Yield	0.980					1	5/4/2026 1:02:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-018
Client Sample ID: 26041298-018

Collection Date: 4/21/2026 10:24:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.660	1	5/6/2026 6:28:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0900	1	5/6/2026 6:28:00 AM
Yield	1.00					1	5/6/2026 6:28:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.570	1	5/5/2026 1:50:00 PM
Yield	1.00					1	5/5/2026 1:50:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-019
Client Sample ID: 26041298-019

Collection Date: 4/21/2026 10:40:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.650	1	5/6/2026 6:28:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0700	1	5/6/2026 6:28:00 AM
Yield	1.00					1	5/6/2026 6:28:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.580	1	5/5/2026 1:50:00 PM
Yield	0.970					1	5/5/2026 1:50:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-020
Client Sample ID: 26041298-020

Collection Date: 4/21/2026 10:54:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.770	1	5/6/2026 6:28:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.110	1	5/6/2026 6:28:00 AM
Yield	1.00					1	5/6/2026 6:28:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.660	1	5/5/2026 1:50:00 PM
Yield	0.900					1	5/5/2026 1:50:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

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WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-021
Client Sample ID: 26041298-021

Collection Date: 4/23/2026 10:02:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.640	1	5/6/2026 6:28:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0600	1	5/6/2026 6:28:00 AM
Yield	1.00					1	5/6/2026 6:28:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.580	1	5/5/2026 1:50:00 PM
Yield	1.00					1	5/5/2026 1:50:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

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WO#: **26042100**

Date Reported: **5/17/2026**

CLIENT: TEKLAB Inc,
Project: 26041298
Lab ID: 26042100-022
Client Sample ID: 26041298-022

Collection Date: 4/22/2026 10:23:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	2.72	2.00		pCi/L	± 0.930	1	5/6/2026 6:28:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0700	1	5/6/2026 6:28:00 AM
Yield	1.00					1	5/6/2026 6:28:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	2.72	1.00		pCi/L	± 0.860	1	5/5/2026 1:50:00 PM
Yield	1.00					1	5/5/2026 1:50:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298 **BatchID:** **96083**

Sample ID: **26042100-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235795**
Client ID: **26041298-001** Batch ID: **96083** TestNo: **E904.0** **E903-904** Analysis Date: **5/4/2026** SeqNo: **6182396**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	0.980			0	0			0.9900	1.02		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298 **BatchID:** **96083**

Sample ID: **MB-96083**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **4/29/2026**	RunNo: **235795**
Client ID: **BatchQC**	Batch ID: **96083**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/4/2026**	SeqNo: **6182386**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.890			0	0						

Sample ID: **LCS-96083**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **4/29/2026**	RunNo: **235795**
Client ID: **BatchQC**	Batch ID: **96083**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/4/2026**	SeqNo: **6182387**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.67	1.00	5.000	0	73.4	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-96083**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **4/29/2026**	RunNo: **235795**
Client ID: **BatchQC**	Batch ID: **96083**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/4/2026**	SeqNo: **6182388**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.45	1.00	5.000	0	69.0	50	130	3.670	6.18	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298 **BatchID:** **96083**

Sample ID: **26042017-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235795**
Client ID: **BatchQC** Batch ID: **96083** TestNo: **E904.0** **E903-904** Analysis Date: **5/4/2026** SeqNo: **6182394**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	0.990			0	0			0.8700	12.9		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298 **BatchID:** **96083**

Sample ID: **26042100-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235811**
Client ID: **26041298-001** Batch ID: **96083** TestNo: **E903.0** **E903-904** Analysis Date: **5/5/2026** SeqNo: **6182734**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298 **BatchID:** **96083**

Sample ID: **MB-96083** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235811**
Client ID: **BatchQC** Batch ID: **96083** TestNo: **E903.0** **E903-904** Analysis Date: **5/5/2026** SeqNo: **6182725**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-96083** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235811**
Client ID: **BatchQC** Batch ID: **96083** TestNo: **E903.0** **E903-904** Analysis Date: **5/5/2026** SeqNo: **6182726**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.05	1.00	5.000	0	101	70	130				

Sample ID: **LCSD-96083** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235811**
Client ID: **BatchQC** Batch ID: **96083** TestNo: **E903.0** **E903-904** Analysis Date: **5/5/2026** SeqNo: **6182727**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.04	1.00	5.000	0	101	70	130	5.050	0.198	20	

Sample ID: **26042017-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235811**
Client ID: **BatchQC** Batch ID: **96083** TestNo: **E903.0** **E903-904** Analysis Date: **5/5/2026** SeqNo: **6182732**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298 **BatchID:** **96083**

Sample ID: **26042017-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235811**
Client ID: **BatchQC** Batch ID: **96083** TestNo: **E903.0** **E903-904** Analysis Date: **5/5/2026** SeqNo: **6182732**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298 **BatchID:** **96084**

Sample ID: **MB-96084**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **4/29/2026**	RunNo: **235814**
Client ID: **BatchQC**	Batch ID: **96084**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/5/2026**	SeqNo: **6182830**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-96084**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **4/29/2026**	RunNo: **235814**
Client ID: **BatchQC**	Batch ID: **96084**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/5/2026**	SeqNo: **6182831**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.80	1.00	5.000	0	76.0	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-96084**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **4/29/2026**	RunNo: **235814**
Client ID: **BatchQC**	Batch ID: **96084**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/5/2026**	SeqNo: **6182832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.86	1.00	5.000	0	57.2	50	130	3.800	28.2	20	R
Yield	0.940			0	0			1.000	6.19		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298 **BatchID:** **96084**

Sample ID: **26042103-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235814**
Client ID: **BatchQC** Batch ID: **96084** TestNo: **E904.0** **E903-904** Analysis Date: **5/5/2026** SeqNo: **6182842**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.18	1.00		0	0			3.320	4.31	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298 **BatchID:** **96084**

Sample ID: **MB-96084** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235827**
Client ID: **BatchQC** Batch ID: **96084** TestNo: **E903.0** **E903-904** Analysis Date: **5/6/2026** SeqNo: **6183217**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-96084** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235827**
Client ID: **BatchQC** Batch ID: **96084** TestNo: **E903.0** **E903-904** Analysis Date: **5/6/2026** SeqNo: **6183218**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.84	1.00	5.000	0	117	70	130				

Sample ID: **LCSD-96084** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235827**
Client ID: **BatchQC** Batch ID: **96084** TestNo: **E903.0** **E903-904** Analysis Date: **5/6/2026** SeqNo: **6183219**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.03	1.00	5.000	0	101	70	130	5.840	14.9	20	

Sample ID: **26042103-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235827**
Client ID: **BatchQC** Batch ID: **96084** TestNo: **E903.0** **E903-904** Analysis Date: **5/6/2026** SeqNo: **6183229**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26042100**

17-May-26

Client: TEKLAB Inc,
Project: 26041298 **BatchID:** **96084**

Sample ID: **26042103-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235827**
Client ID: **BatchQC** Batch ID: **96084** TestNo: **E903.0** **E903-904** Analysis Date: **5/6/2026** SeqNo: **6183229**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **26042103-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **4/29/2026** RunNo: **235827**
Client ID: **BatchQC** Batch ID: **96084** TestNo: **E903.0** **E903-904** Analysis Date: **5/6/2026** SeqNo: **6183231**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

26042100

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: | Sampler: Teklab | QC Level: 2

Project# 26041298

Contact: Shelly Hennessy | Email: shennessy@TekLabInc.com

Requested Due Date: Standard TAT | Billing/PO: 40966 | Phone: (618) 344-1004 ext 1024

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per 903/904 methods.
Any changes to analysis/methods must be approved by Teklab, Inc.
Batch QC and standard EDD are required. State of Sample Origin = IL

LOI
PH: 2, 2, 2
CPM: 24, 18, 22

In:
PH: 2, 2, 2
CPM: 25, 24, 24

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Combined Radium			PH	CPM			PH	CPM	PH	CPM
	26041298-001	4/22/2026 11:07	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	28	☐	☐	1	20	1	18
	26041298-002	4/22/2026 10:43	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	24	☐	☐	1	18	1	20
	26041298-003	4/21/2026 12:27	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	30	☐	☐	1	34	1	18
	26041298-004	4/21/2026 13:02	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	28	☐	☐	2	36	1	16
	26041298-005	4/21/2026 9:59	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	26	☐	☐	2	26	1	26
	26041298-006	4/21/2026 12:00	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	24	☐	☐	2	32	1	38
	26041298-007	4/21/2026 11:17	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	50	☐	☐	1	30	1	18
	26041298-008	4/21/2026 11:17	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	24	☐	☐	1	20	2	22
	26041298-009	4/21/2026 11:56	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	28	☐	☐	1	24	1	26
	26041298-010	4/21/2026 9:50	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐			☐	☐				
	26041298-011	4/22/2026 10:17	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐			☐	☐				

*Relinquished By	Date/Time	Received By	Date/Time
Emily Kassakatsi	4/23/26 1700	Paige Joiner	4/27/26 11:00

Fridge Temp 20.4°C (22.5-0.1)

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state, and federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevB
1/12/2026

26042100

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: | Sampler: Teklab | QC Level: 2

Project# 26041298

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per 903/904 methods.
Any changes to analysis/methods must be approved by Teklab, Inc.
Batch QC and standard EDD are required. State of Sample Origin = IL

Contact: Shelly Hennessy | Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT | Billing/PO: 40966 | Phone: (618) 344-1004 ext 1024

13: PH: 1, 1, 1 CPM: 16, 20, 24
12: PH: 1, 1, 1 CPM: 22, 23, 32

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Combined Radium			PH	CPM			PH	CPM	PH	CPM
	26041298-012	4/21/2026 10:00	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	26	☐	☐	1	24	2	26
	26041298-013	4/21/2026 11:15	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	28	☐	☐	1	20	2	28
	26041298-014	4/21/2026 11:44	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	23	☐	☐	1	30	2	24
	26041298-015	4/21/2026 12:35	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	8	☐	☐	1	20	1	28
	26041298-016	4/21/2026 12:20	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	26	☐	☐	1	38	1	26
	26041298-017	4/21/2026 10:34	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	36	☐	☐	1	22	1	32
	26041298-018	4/21/2026 10:24	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	22	☐	☐	1	22	1	16
	26041298-019	4/21/2026 10:40	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	26	☐	☐	1	22	1	20
	26041298-020	4/21/2026 10:54	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	2	24	☐	☐	1	14	1	15
	26041298-021	4/23/2026 10:02	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐			☐	☐				
	26041298-022	4/22/2026 10:23	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐			☐	☐				

22 21 20 19 18 17 16 15 14

*Relinquished By	Date/Time	Received By	Date/Time
Cody Kasselaak	4/23/26 1700	Paige Cyenier	4/27/26 11:00

Temp. 20.4°C (20.5-0.1)

Fed X

CS: 412 3126

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SubCocRevB 1/12/2026

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **26042100** RcptNo: **1**

Logged by:	**Paige J. Yerick**	**4/27/2026 11:00:00 AM**
Completed By:	**Paige J. Yerick**	**4/28/2026 11:53:17 AM**
Reviewed By:	**Jennifer Woolf**	**5/1/2026 12:33:15 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐ NA ☐
   No. 9066 Seal Date: 4/23/2026 Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	20.4	Good	Yes		4/23/2026	

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	RW-3
Project Location:	Springfield, IL	**Sample ID:**	001
W.O. Number (s):	26041298	**Date (s):**	4/22/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/22/26 10:47 AM

Static Water Level: 9.98 feet below TOC

Total Depth: 44.01 feet below TOC

Water Column: 34.03 feet

Purging Activities

Purged By: DC Purge Date: 4/22/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 34.03 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:47	0.0	250	purge start time						
10:55	2.0	↓	7.04	646.80	14.24	1.23	-54.00	5.91	
10:58	2.8		7.02	645.20	14.21	1.12	-59.10	7.09	
11:01	3.5		7.00	646.20	14.37	1.06	-63.70	9.19	
11:04	4.3		6.98	647.90	14.30	1.01	-69.40	9.09	
11:07	5.0		6.97	649.70	14.37	0.97	-75.60	13.19	

Sampling Activities

Sampled By: BG Sample Date/Time: 4/22/2026 11:07

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.97 pH 649.70 Spec. Cond. 14.37 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 10.56 feet below TOC Drawdown: 0.58 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 4/22/2026

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 26041298
Monitoring Point: AP-1
Sample ID: 002
Date (s): 4/22/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 70 °F — Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/22/26 10:28 AM
Static Water Level: 9.75 feet below TOC
Total Depth: 31.08 feet below TOC
Water Column: 21.33 feet

Purging Activities

Purged By: JC — Purge Date: 4/22/2026
Purge Method: Low Flow — Well Diameter: 2"
Purge Volume Calculation (L): 21.33 ft. x 0.022 = 0.47 L x 3 Vol. = 1.41 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.50 L
Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:29	0.0	250	purge start time						
10:34	1.3	↓	6.55	1,158.50	15.01	1.62	-65.50	6.95	
10:37	2.0		6.54	1,169.20	15.08	1.19	-82.90	5.48	
10:40	2.8		6.52	1,212.90	15.25	1.04	-89.70	4.75	
10:43	3.5		6.49	1,243.80	15.31	0.95	-92.70	3.77	

Sampling Activities

Sampled By: JC — Sample Date/Time: 4/22/2026 10:43
Sample Method: Low Flow — Sample Equipment: Bladder Pump
Sample Parameters: 6.49 pH — 1,243.80 Spec. Cond. — 15.31 Temp
Field Filtered: No — Filter Type:
Water Level: 10.02 feet below TOC — Drawdown: 0.27 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp — **Date:** 4/22/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-2
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Allison Lampe — Affiliation: TekLab, Inc.

Name: Drew Nieters — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 63 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/21/26 12:11 PM

Static Water Level: 7.32 feet below TOC

Total Depth: 21.33 feet below TOC

Water Column: 14.01 feet

Purging Activities

Purged By: AL — Purge Date: 4/21/2026

Purge Method: Low Flow — Well Diameter: 2"

Purge Volume Calculation (L): 14.01 ft. x 0.022 = 0.31 L x 3 Vol. = 0.93 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 2.00 L

Physical appearance of purge water: Cloudy — Odor: None — Color: Light Brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:11	0.0	125	purge start time						
12:21	1.3	↓	6.51	1,406.70	14.03	2.51	15.50	64.23	
12:24	1.6		6.51	1,409.80	14.00	2.01	12.50	38.80	
12:27	2.0		6.50	1,410.00	14.19	1.72	10.20	30.01	

Sampling Activities

Sampled By: DN — Sample Date/Time: 4/21/2026 12:27

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.50 pH — 1,410.00 Spec. Cond. — 14.19 Temp

Field Filtered: No — Filter Type:

Water Level: 7.42 feet below TOC — Drawdown: 0.10 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223337

Form Completed By: A Nieters — **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-3
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 63 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/21/26 12:42 PM

Static Water Level: 9.30 feet below TOC

Total Depth: 20.80 feet below TOC

Water Column: 11.50 feet

Purging Activities

Purged By: AL Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 11.5 ft. x 0.022 = 0.25 L x 3 Vol. = 0.75 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 2.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Light Brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:42	0.0	100	purge start time						
12:56	1.4	↓	6.57	1,438.90	16.10	2.52	-26.30	226.72	
12:59	1.7		6.57	1,450.40	16.30	2.01	-33.50	153.14	
13:02	2.0		6.56	1,455.40	16.34	1.73	-37.60	104.05	

Sampling Activities

Sampled By: DN Sample Date/Time: 4/21/2026 13:02

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.56 pH 1,455.40 Spec. Cond. 16.34 Temp

Field Filtered: No Filter Type:

Water Level: 9.45 feet below TOC Drawdown: 0.15 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223337

Form Completed By: A Nieters **Date:** 4/21/2026

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 26041298
Monitoring Point: AP-4
Sample ID: 005
Date (s): 4/21/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 63 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/21/26 9:35 AM
Static Water Level: 10.82 feet below TOC
Total Depth: 60.41 feet below TOC
Water Column: 49.59 feet

Purging Activities

Purged By: AL Purge Date: 4/21/2026
Purge Method: Low Flow Well Diameter: 2"
Purge Volume Calculation (L): 49.59 ft. x 0.022 = 1.09 L x 3 Vol. = 3.27 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:30	0.0	103	purge start time						
9:50	2.1	↓	6.82	912.70	18.59	4.00	-17.70	44.09	
9:53	2.4		6.81	916.40	18.80	3.90	-31.80	27.16	
9:56	2.7		6.81	920.50	19.03	3.84	-43.20	25.66	
9:59	3.0		6.82	922.00	19.18	3.77	-50.60	22.21	

Sampling Activities

Sampled By: DN Sample Date/Time: 4/21/2026 9:59
Sample Method: Low Flow Sample Equipment: Bladder Pump
Sample Parameters: 6.82 pH 922.00 Spec. Cond. 19.18 Temp
Field Filtered: No Filter Type:
Water Level: 11.05 feet below TOC Drawdown: 0.23 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223337

Form Completed By: A Nieters Date: 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-5
Project Location:	Springfield, IL	**Sample ID:**	006
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 70 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/21/26 11:40 AM

Static Water Level: 14.66 feet below TOC

Total Depth: 31.27 feet below TOC

Water Column: 16.61 feet

Purging Activities

Purged By: JC Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 16.61 ft. x 0.022 = 0.37 L x 3 Vol. = 1.11 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:41	0.0	237	purge start time						
11:48	1.7	↓	7.06	555.60	14.38	2.63	40.30	3.39	
11:51	2.4		7.03	554.80	14.43	2.17	42.30	2.95	
11:54	3.1		7.02	553.90	14.46	1.94	44.60	2.94	
11:57	3.8		7.01	553.10	14.47	1.80	46.70	2.14	
12:00	4.5		7.01	553.30	14.21	1.73	47.60	2.05	

Sampling Activities

Sampled By: JC Sample Date/Time: 4/21/2026 12:00

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.01 pH 553.30 Spec. Cond. 14.21 Temp

Field Filtered: No Filter Type:

Water Level: 16.25 feet below TOC Drawdown: 1.59 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-6
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 63 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/21/26 11:11 AM

Static Water Level: 10.72 feet below TOC

Total Depth: 39.62 feet below TOC

Water Column: 28.90 feet

Purging Activities

Purged By: AL Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 28.9 ft. x 0.022 = 0.64 L x 3 Vol. = 1.92 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 2.00 L

Physical appearance of purge water: Clear Odor: Slight Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:00	0.0	118	purge start time						
11:11	1.3	↓	7.21	750.60	17.53	4.57	-68.60	15.30	
11:14	1.6		7.22	753.60	17.96	4.63	-66.40	16.33	
11:17	2.0		7.20	757.30	18.18	4.61	-64.30	20.74	

Sampling Activities

Sampled By: DN Sample Date/Time: 4/21/2026 11:17

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.20 pH 757.30 Spec. Cond. 18.18 Temp

Field Filtered: No Filter Type:

Water Level: 11.81 feet below TOC Drawdown: 1.09 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223337

Form Completed By: Allison Lampe **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-7
Project Location:	Springfield, IL	**Sample ID:**	008
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 68 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/21/26 11:02 AM

Static Water Level: 12.82 feet below TOC

Total Depth: 42.52 feet below TOC

Water Column: 29.70 feet

Purging Activities

Purged By: JC Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 29.7 ft. x 0.022 = 0.65 L x 3 Vol. = 1.95 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.50 L

Physical appearance of purge water: Clear Odor: Slight Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:03	0.0	250	purge start time						
11:08	1.3	↓	7.10	620.00	13.57	0.86	-111.60	2.48	
11:11	2.0		7.06	614.90	13.37	0.64	-108.30	3.24	
11:14	2.8		7.04	614.00	13.34	0.56	-107.30	3.34	
11:17	3.5		7.04	613.80	13.48	0.51	-106.60	3.33	

Sampling Activities

Sampled By: JC Sample Date/Time: 4/21/2026 11:17

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.04 pH 613.80 Spec. Cond. 13.48 Temp

Field Filtered: No Filter Type:

Water Level: 16.52 feet below TOC Drawdown: 3.70 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-8
Project Location:	Springfield, IL	**Sample ID:**	009
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 63 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/21/26 11:38 AM

Static Water Level: 5.93 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 33.67 feet

Purging Activities

Purged By: AL Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 33.67 ft. x 0.022 = 0.74 L x 3 Vol. = 2.22 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:35	0.0	143	purge start time						
11:50	2.1	↓	6.98	939.80	18.31	2.40	-14.30	25.42	
11:53	2.6		6.99	939.30	18.41	2.01	-21.30	24.51	
11:56	3.0		6.99	940.80	19.07	1.72	-26.20	27.16	

Sampling Activities

Sampled By: DN Sample Date/Time: 4/21/2026 11:56

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.99 pH 940.80 Spec. Cond. 19.07 Temp

Field Filtered: No Filter Type:

Water Level: 6.85 feet below TOC Drawdown: 0.92 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223337

Form Completed By: Allison Lampe **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-9
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 63 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/21/26 9:37 AM

Static Water Level: 11.82 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 27.78 feet

Purging Activities

Purged By: JC — Purge Date: 4/21/2026

Purge Method: Low Flow — Well Diameter: 2"

Purge Volume Calculation (L): 27.78 ft. x 0.022 = 0.61 L x 3 Vol. = 1.83 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Cloudy — Odor: None — Color: lt brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:37	0.0	231	purge start time						
9:41	0.9	↓	6.69	813.00	15.25	1.94	64.00	72.45	
9:44	1.6		6.72	776.40	15.35	1.75	55.70	96.23	
9:47	2.3		6.73	770.80	15.59	1.74	52.40	88.67	
9:50	3.0		6.74	769.80	15.77	1.72	51.20	81.20	

Sampling Activities

Sampled By: JC — Sample Date/Time: 4/21/2026 9:50

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.74 pH — 769.80 Spec. Cond. — 15.77 Temp

Field Filtered: No — Filter Type:

Water Level: 12.37 feet below TOC — Drawdown: 0.55 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp — **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP10
Project Location:	Springfield, IL	**Sample ID:**	011
W.O. Number (s):	26041298	**Date (s):**	4/22/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 67 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/22/26 9:56 AM

Static Water Level: 4.60 feet below TOC

Total Depth: 38.07 feet below TOC

Water Column: 33.47 feet

Purging Activities

Purged By: JC Purge Date: 4/22/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 33.47 ft. x 0.022 = 0.74 L x 3 Vol. = 2.22 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:57	0.0	250	purge start time						
10:02	1.3	↓	6.52	954.50	15.56	1.84	-83.40	11.62	
10:05	2.0		6.54	924.20	15.48	1.50	-96.40	9.38	
10:08	2.8		6.54	914.80	15.40	1.24	-100.80	7.75	
10:11	3.5		6.54	909.60	15.46	1.09	-102.60	7.71	
10:14	4.3		6.53	904.00	15.50	1.00	-103.20	8.27	
10:17	5.0		6.51	900.80	15.47	0.96	-103.00	9.64	

Sampling Activities

Sampled By: JC Sample Date/Time: 4/22/2026 10:17

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.51 pH 900.80 Spec. Cond. 15.47 Temp

Field Filtered: No Filter Type:

Water Level: 4.78 feet below TOC Drawdown: 0.18 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp **Date:** 4/22/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP11
Project Location:	Springfield, IL	**Sample ID:**	012
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 65 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing	X	
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Yes				

Groundwater Level Measurements

Date/Time Measured: 4/21/26 9:34 AM

Static Water Level: 14.03 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 8.92 feet

Purging Activities

Purged By: DC Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 8.92 ft. x 0.022 = 0.2 L x 3 Vol. = 0.6 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:34	0.0	173	purge start time						
9:48	2.4	↓	6.33	988.40	15.51	1.40	52.00	10.17	
9:51	2.9		6.33	987.00	15.68	1.30	52.50	10.68	
9:54	3.5		6.33	985.60	15.69	1.22	52.40	8.77	
9:57	4.0		6.34	985.20	15.52	1.16	52.20	6.50	
10:00	4.5		6.34	985.10	15.46	1.11	52.00	6.81	

Sampling Activities

Sampled By: BG Sample Date/Time: 4/21/2026 10:00

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.34 pH 985.10 Spec. Cond. 15.46 Temp

Field Filtered: No Filter Type:

Water Level: 14.84 feet below TOC Drawdown: 0.81 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP12
Project Location:	Springfield, IL	**Sample ID:**	013
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 67 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing	X	
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/21/26 10:53 AM

Static Water Level: 15.67 feet below TOC

Total Depth: 30.40 feet below TOC

Water Column: 14.73 feet

Purging Activities

Purged By: DC Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 14.73 ft. x 0.022 = 0.32 L x 3 Vol. = 0.96 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Rust

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:53	0.0	227	purge start time						
11:03	2.3	↓	6.37	1,331.50	15.45	1.08	27.40	208.04	
11:06	3.0		6.36	1,334.20	15.41	0.97	16.90	148.67	
11:09	3.6		6.35	1,333.70	15.42	0.91	9.40	110.19	
11:12	4.3		6.35	1,334.10	15.25	0.86	4.00	83.88	
11:15	5.0		6.35	1,333.70	15.37	0.84	-0.20	80.31	

Sampling Activities

Sampled By: BG Sample Date/Time: 4/21/2026 11:15

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.35 pH 1,333.70 Spec. Cond. 15.37 Temp

Field Filtered: No Filter Type:

Water Level: 16.22 feet below TOC Drawdown: 0.55 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP13
Project Location:	Springfield, IL	**Sample ID:**	014
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 70 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing	X	
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Yes				

Groundwater Level Measurements

Date/Time Measured: 4/21/26 11:27 AM

Static Water Level: 17.04 feet below TOC

Total Depth: 31.00 feet below TOC

Water Column: 13.96 feet

Purging Activities

Purged By: DC Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 13.96 ft. x 0.022 = 0.31 L x 3 Vol. = 0.93 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:27	0.0	294	purge start time						
11:32	1.5	↓	6.67	750.30	14.88	1.53	-22.00	10.51	
11:35	2.4		6.62	749.30	14.90	1.10	-36.40	9.16	
11:38	3.2		6.60	750.60	14.90	0.93	-43.60	8.48	
11:41	4.1		6.59	751.70	14.87	0.86	-47.30	7.04	
11:44	5.0		6.58	751.40	14.98	0.82	-49.00	6.15	

Sampling Activities

Sampled By: BG Sample Date/Time: 1/17/1900 11:44

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.58 pH 751.40 Spec. Cond. 14.98 Temp

Field Filtered: No Filter Type:

Water Level: 17.38 feet below TOC Drawdown: 0.34 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 1/17/1900

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP14
Project Location:	Springfield, IL	**Sample ID:**	015
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 73 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/21/26 12:13 PM

Static Water Level: 2.61 feet below TOC

Total Depth: 31.20 feet below TOC

Water Column: 28.59 feet

Purging Activities

Purged By: JC Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 28.59 ft. x 0.022 = 0.63 L x 3 Vol. = 1.89 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 7.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:14	0.0	333	purge start time						
12:23	3.0	↓	6.95	1,486.40	16.99	1.25	-48.10	10.68	
12:26	4.0		6.93	1,512.30	17.61	1.10	-52.00	4.82	
12:29	5.0		6.92	1,514.50	17.96	0.98	-54.20	3.75	
12:32	6.0		6.92	1,512.90	17.96	0.91	-55.30	3.57	
12:35	7.0		6.91	1,513.20	18.11	0.88	-55.80	3.44	

Sampling Activities

Sampled By: JC Sample Date/Time: 4/21/2026 12:35

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.91 pH 1,513.20 Spec. Cond. 18.11 Temp

Field Filtered: No Filter Type:

Water Level: 2.96 feet below TOC Drawdown: 0.35 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-01
Project Location:	Springfield, IL	**Sample ID:**	016
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing	X	
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/21/26 11:56 AM

Static Water Level: 12.82 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 10.13 feet

Purging Activities

Purged By: DC Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 10.13 ft. x 0.022 = 0.22 L x 3 Vol. = 0.66 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:56	0.0	167	purge start time						
12:08	2.0	↓	6.34	1,270.30	17.03	1.49	51.90	17.59	
12:11	2.5		6.35	1,270.70	16.81	1.42	51.40	16.91	
12:14	3.0		6.35	1,272.10	16.56	1.41	51.50	15.77	
12:17	3.5		6.34	1,268.20	16.52	1.36	51.80	15.02	
12:20	4.0		6.34	1,269.70	16.56	1.33	52.40	12.75	

Sampling Activities

Sampled By: BG Sample Date/Time: 4/21/2026 12:20

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.34 pH 1,269.70 Spec. Cond. 16.56 Temp

Field Filtered: No Filter Type:

Water Level: 13.26 feet below TOC Drawdown: 0.44 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-02
Project Location:	Springfield, IL	**Sample ID:**	017
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 65 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing	X	
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Yes				

Groundwater Level Measurements

Date/Time Measured: 4/21/26 10:15 AM

Static Water Level: 25.76 feet below TOC

Total Depth: 34.44 feet below TOC

Water Column: 8.68 feet

Purging Activities

Purged By: DC Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 8.68 ft. x 0.022 = 0.19 L x 3 Vol. = 0.57 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:15	0.0	211	purge start time						
10:22	1.5	↓	6.35	1,932.20	14.77	1.50	-16.80	7.34	
10:25	2.1		6.36	1,927.80	14.88	1.29	-25.10	5.39	
10:28	2.7		6.36	1,914.90	14.96	1.18	-26.90	4.29	
10:31	3.4		6.36	1,909.10	15.04	1.11	-27.30	3.65	
10:34	4.0		6.37	1,907.60	15.02	1.06	-28.60	3.29	

Sampling Activities

Sampled By: BG Sample Date/Time: 4/21/2026 10:34

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.37 pH 1,907.60 Spec. Cond. 15.02 Temp

Field Filtered: No Filter Type:

Water Level: 26.31 feet below TOC Drawdown: 0.55 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-04
Project Location:	Springfield, IL	**Sample ID:**	018
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 65 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/21/26 10:07 AM

Static Water Level: 18.65 feet below TOC

Total Depth: 27.42 feet below TOC

Water Column: 8.77 feet

Purging Activities

Purged By: JC Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 8.77 ft. x 0.022 = 0.19 L x 3 Vol. = 0.57 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: lt brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:08	0.0	250	purge start time						
10:12	1.0	↓	6.79	641.30	13.64	1.73	-70.30	51.57	
10:15	1.8		6.60	531.40	13.46	1.54	-35.70	18.01	
10:18	2.5		6.55	475.70	13.22	1.41	-10.30	14.22	
10:21	3.3		6.52	475.30	13.37	1.35	6.90	12.57	
10:24	4.0		6.51	479.00	13.50	1.30	18.50	12.10	

Sampling Activities

Sampled By: JC Sample Date/Time: 4/21/2026 10:24

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.51 pH 479.00 Spec. Cond. 13.50 Temp

Field Filtered: No Filter Type:

Water Level: 19.45 feet below TOC Drawdown: 0.80 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp **Date:** 4/21/2026

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 26041298
Monitoring Point: T-05
Sample ID: 019
Date (s): 4/21/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 67 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/21/26 10:27 AM

Static Water Level: 6.04 feet below TOC
Total Depth: 22.34 feet below TOC
Water Column: 16.30 feet

Purging Activities

Purged By: JC — Purge Date: 4/21/2026
Purge Method: Low Flow — Well Diameter: 2"
Purge Volume Calculation (L): 16.3 ft. x 0.022 = 0.36 L x 3 Vol. = 1.08 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 3.00 L
Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:27	0.0	231	purge start time						
10:31	0.9	↓	6.63	340.30	15.14	5.27	54.40	15.28	
10:34	1.6		6.61	341.90	15.39	5.12	64.20	12.04	
10:37	2.3		6.61	342.40	15.40	5.04	71.50	11.70	
10:40	3.0		6.62	340.60	15.16	5.05	77.20	15.44	

Sampling Activities

Sampled By: JC — Sample Date/Time: 4/21/2026 10:40
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.62 pH — 340.60 Spec. Cond. — 15.16 Temp
Field Filtered: No — Filter Type:
Water Level: 7.56 feet below TOC — Drawdown: 1.52 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp — **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-06
Project Location:	Springfield, IL	**Sample ID:**	020
W.O. Number (s):	26041298	**Date (s):**	4/21/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 68 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/21/26 10:42 AM

Static Water Level: 11.98 feet below TOC

Total Depth: 43.62 feet below TOC

Water Column: 31.64 feet

Purging Activities

Purged By: JC Purge Date: 4/21/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 31.64 ft. x 0.022 = 0.7 L x 3 Vol. = 2.1 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:43	0.0	273	purge start time						
10:48	1.4	↓	7.07	649.30	15.39	1.31	-43.90	4.33	
10:51	2.2		7.07	653.50	15.56	1.16	-60.20	4.87	
10:54	3.0		7.06	652.80	15.89	1.05	-74.10	4.87	

Sampling Activities

Sampled By: JC Sample Date/Time: 4/21/2026 10:54

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 7.06 pH 652.80 Spec. Cond. 15.89 Temp

Field Filtered: No Filter Type:

Water Level: 12.15 feet below TOC Drawdown: 0.17 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp **Date:** 4/21/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AW-1
Project Location:	Springfield, IL	**Sample ID:**	021
W.O. Number (s):	26041298	**Date (s):**	4/23/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 70 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/23/26 9:35 AM

Static Water Level: 14.96 feet below TOC

Total Depth: 54.81 feet below TOC

Water Column: 39.85 feet

Purging Activities

Purged By: DC Purge Date: 4/23/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 39.85 ft. x 0.022 = 0.88 L x 3 Vol. = 2.64 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Rust

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:35	0.0	222	purge start time						
9:50	3.3	↓	6.73	1,286.30	17.53	2.28	67.80	91.07	
9:53	4.0		6.73	1,284.30	17.48	2.25	69.40	103.83	
9:56	4.7		6.72	1,283.60	17.50	2.17	70.60	86.58	
9:59	5.3		6.72	1,284.50	17.64	2.04	71.40	63.80	
10:02	6.0		6.72	1,285.20	17.54	2.05	72.00	62.71	

Sampling Activities

Sampled By: BG Sample Date/Time: 4/23/2026 10:02

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.72 pH 1,285.20 Spec. Cond. 17.54 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 15.52 feet below TOC Drawdown: 0.56 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 4/23/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	G120
Project Location:	Springfield, IL	**Sample ID:**	022
W.O. Number (s):	26041298	**Date (s):**	4/22/2026

Field Team Members

Name: Allison Lampe — Affiliation: TekLab, Inc.

Name: Drew Nieters — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 71 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/22/26 9:55 AM

Static Water Level: 16.43 feet below TOC

Total Depth: 50.37 feet below TOC

Water Column: 33.94 feet

Purging Activities

Purged By: AL — Purge Date: 4/22/2026

Purge Method: Low Flow — Well Diameter: 2"

Purge Volume Calculation (L): 33.94 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:55	0.0	179	purge start time						
10:14	3.4	↓	6.68	1,795.20	18.23	1.96	-41.50	71.51	
10:17	3.9		6.69	1,791.50	18.30	1.80	-67.50	72.97	
10:20	4.5		6.69	1,788.00	18.21	1.69	-82.70	83.16	
10:23	5.0		6.69	1,778.00	18.23	1.59	-92.70	83.39	

Sampling Activities

Sampled By: DN — Sample Date/Time: 4/22/2026 10:23

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.69 pH — 1,778.00 Spec. Cond. — 18.23 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 16.55 feet below TOC — Drawdown: 0.12 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223337

Form Completed By: A Nieters — **Date:** 4/22/2026

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 26041298
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223357 Technician(s): justin colp Date: 4/21/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260306A	4.00	122.30	4/21/26 8:59
7.0 Buffer	WC251017B	7.00	-45.80	4/21/26 8:55
10.0 Buffer	WC251017C	10.00	-213.30	4/21/26 9:02
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/21/26 9:08

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.96	4/21/26 9:09
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	4/21/26 9:14	18.2	7.03	1,401	0.88		
CCV-1-JC	CCV	4/21/26 13:03	20.5	7.05	1,424	0.89		

Comments:

Field Meter ID: Pine 223357 Technician(s): justin colp Date: 4/22/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	121.80	4/22/26 9:17
7.0 Buffer	WC251017B	7.00	-46.80	4/22/26 9:15
10.0 Buffer	WC251017C	10.00	-213.10	4/22/26 9:21
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/22/26 9:24

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.93	4/22/26 9:26
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	4/22/26 9:28	20.8	7.01	1,414	0.95		
CCV-2-JC	CCV	4/22/26 12:57	23.4	7.04	1,393	0.93		

Comments:

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 26041298
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223357 Technician(s): justin colp Date: 4/23/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	118.80	4/23/26 9:08
7.0 Buffer	WC251017B	7.00	-49.00	4/23/26 9:05
10.0 Buffer	WC251017C	10.00	-213.60	4/23/26 9:12
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/23/26 9:17

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.94	4/23/26 9:18
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-JC	LCS	4/23/26 9:19	20.3	7.03	1,407	0.87		
CCV-3-JC	CCV	4/23/26 11:07	21.1	7.01	1,371	0.95		

Comments:

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 26041298
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 51295 Technician(s): Brett Gillihan Date: 4/21/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260306A	4.00	129.40	4/21/26 8:55
7.0 Buffer	WC251017B	7.00	-41.00	4/21/26 8:52
10.0 Buffer	WC251017C	10.00	-200.30	4/21/26 9:01
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1411	4/21/26 9:07

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.32	4/21/26 9:10
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	4/21/26 9:13	14.9	6.98	1,415	0.37		
CCV-1-BG	CCV	4/21/26 13:05	17.4	6.99	1,419	0.41		

Comments:

Field Meter ID: Pine 51215 Technician(s): Brett Gillihan Date: 4/22/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	123.90	4/22/26 9:34
7.0 Buffer	WC251017B	7.00	-39.70	4/22/26 9:31
10.0 Buffer	WC251017C	10.00	139.20	1/0/00 0:00
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1416	4/22/26 9:39

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.41	4/22/26 9:42
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	4/22/26 9:44	19.1	6.99	1,416	0.42		
CCV-2-BG	CCV	4/22/26 13:11	19.7	7.00	1,415	0.44		

Comments:

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 26041298
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 51215 Technician(s): Brett Gillihan Date: 4/23/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	125.40	4/23/26 9:08
7.0 Buffer	WC251017B	7.00	-37.20	4/23/26 9:01
10.0 Buffer	WC251017C	10.00	-193.40	4/23/26 9:10
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/23/26 9:17

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.36	4/23/26 9:21
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-BG	LCS	4/23/26 9:22	19.5	6.99	1,415	0.38		
CCV-3-BG	CCV	4/23/26 12:48	19.8	7.01	1,420	0.42		

Comments:

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 26041298
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223337 Technician(s): A.Lampe Date: 4/21/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260306A	4.00	148.70	4/21/26 9:09
7.0 Buffer	WC251017B	7.00	-26.00	4/21/26 9:12
10.0 Buffer	WC251017C	10.00	-196.20	4/21/26 9:17
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/21/26 9:18

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.67	4/21/26 9:22
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-AL	LCS	4/21/26 9:23	18.8	7.07	1,414	0.67		
CCV-1-AL	CCV	4/21/26 13:10	19	7.08	1,374	0.78		

Comments:

Field Meter ID: Pine 23337 Technician(s): A.Lampe Date: 4/22/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	148.80	4/22/26 9:27
7.0 Buffer	WC251017B	7.00	-27.60	4/22/26 9:29
10.0 Buffer	WC251017C	10.00	-196.90	4/22/26 9:31
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/22/26 9:34

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.78	4/22/26 9:36
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-AL	LCS	4/22/26 9:40	19.07	7.05	1,407	0.78		
CCV-2-AL	CCV	4/22/26 12:42	19.8	7.01	1,367	0.96		

Comments:

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 26041298
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 23337 Technician(s): A.Lampe Date: 4/23/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	149.60	4/23/26 9:25
7.0 Buffer	WC251017B	7.00	-27.60	4/23/26 9:27
10.0 Buffer	WC251017C	10.00	-197.50	4/23/26 9:29
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/23/26 9:31

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.45	4/23/26 9:32
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-AL	LCS	4/23/26 9:34	19.1	7.08	1,406	0.45		
CCV-3-AL	CCV	4/23/26 11:13	20.8	7.07	1,384	0.87		

Comments:

May 26, 2026

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100467
Kansas	E-10374
Kansas	E-10438
Louisiana	05002
Oklahoma	9978

RE: Landfill Monitoring Wells G1-G2-G3 **WorkOrder:** 26041297

Dear Eric Staley:

TEKLAB, INC received 13 samples on 4/23/2026 1:04:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 26041297
Client Project: Landfill Monitoring Wells G1-G2-G3
Report Date: 26-May-26

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	67
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3
Report Date: 26-May-26

Qualifiers

- Unknown hydrocarbon
B - Analyte detected in associated Method Blank
C - RL shown is a Client Requested Quantitation Limit
E - Value above quantitation range
H - Holding times exceeded
I - Associated internal standard was outside method criteria
J - Analyte detected below quantitation limits
M - Manual Integration used to determine area response
ND - Not Detected at the Reporting Limit
R - RPD outside accepted recovery limits
S - Spike Recovery outside recovery limits
T - TIC(Tentatively identified compound)
X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 26041297
Client Project: Landfill Monitoring Wells G1-G2-G3
Report Date: 26-May-26

Cooler Receipt Temp: 15.4 °C

An employee of Teklab, Inc. collected the sample(s).

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville

Address 120 United Drive
Collinsville, IL 62234-7433
Phone (618) 344-1004
Fax
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 120 United Drive
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100467	NELAP	1/31/2027	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2027	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2027	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2026	Collinsville
Arkansas	ADEQ	88-0966		3/14/2027	Collinsville
Illinois	IDPH	17584		5/31/2026	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kansas	KDHE	E-92716		1/31/2027	Collinsville
Kentucky	KWLCP	KY98050		12/31/2026	Collinsville
Kentucky	KWLCP	KY98006		12/31/2026	Collinsville
Kentucky	UST	0073		1/31/2027	Collinsville
Louisiana	LDEQ	05003		6/30/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 12:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	04/22/2026 12:07	R383246
Depth to water	*	-5.00		**4.03**	ft	1	04/22/2026 12:07	R383246
Depth to water from measuring point	*	0		**6.83**	ft	1	04/22/2026 12:07	R383246
Elevation of groundwater surface	*	0		**539.97**	ft	1	04/22/2026 12:07	R383246
Measuring Point Elevation	*	0		**546.80**	ft	1	04/22/2026 12:07	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.2**	°F	1	04/22/2026 12:07	R383246
SW-846 9040B								
pH, Field	*	1.00		**7.21**		1	04/22/2026 12:07	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1090**	µmhos/cm @25C	1	04/22/2026 12:07	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	04/28/2026 16:34	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**2.65**	mg/L	1	04/23/2026 14:21	R382764
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**2.16**	mg/L	1	04/23/2026 14:19	R382764
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 17:35	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 19:07	R382815
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**866**	mg/L	1	04/24/2026 14:29	R383030
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 16:30	255472
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:38	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 16:08	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**106**	mg/L	10	04/26/2026 6:15	R382935
Sulfate	NELAP	10.0		**241**	mg/L	10	04/26/2026 6:15	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 5:37	R382935
Chloride	NELAP	5.00		**105**	mg/L	10	04/26/2026 5:37	R382935
Sulfate	NELAP	10.0		**241**	mg/L	10	04/26/2026 5:37	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	1.0		**1.1**	mg/L	1	04/22/2026 21:41	R382728
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/27/2026 14:42	R382981
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**129**	µg/L	1	04/24/2026 20:40	255439
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/24/2026 20:40	255439
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/24/2026 20:40	255439

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 12:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Magnesium	NELAP	0.050		**65.5**	mg/L	1	04/24/2026 20:40	255439
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/24/2026 20:40	255439
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**< 25.0**	µg/L	1	05/01/2026 10:51	255445
Barium	NELAP	2.5		**358**	µg/L	1	05/01/2026 10:51	255445
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/01/2026 10:51	255445
Boron	NELAP	20.0		**135**	µg/L	1	05/01/2026 10:51	255445
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/01/2026 10:51	255445
Calcium	NELAP	0.100		**131**	mg/L	1	04/27/2026 19:48	255445
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:51	255445
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:51	255445
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:51	255445
Iron	NELAP	40.0		**126**	µg/L	1	05/01/2026 10:51	255445
Magnesium	NELAP	0.050		**69.1**	mg/L	1	05/01/2026 10:51	255445
Manganese	NELAP	7.0		**19800**	µg/L	1	05/01/2026 10:51	255445
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:51	255445
Potassium	NELAP	0.100		**1.96**	mg/L	1	04/27/2026 19:48	255445
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/01/2026 10:51	255445
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/01/2026 10:51	255445
Sodium	NELAP	0.050	B	**31.2**	mg/L	1	04/27/2026 19:48	255445
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 10:51	255445
Zinc	NELAP	10.0	B	**< 10.0**	µg/L	1	05/01/2026 10:51	255445
Contamination present in the MBLK for Zn. Sample results below the reporting limit are reportable per the TNI Standard.								
Sample result(s) for Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/21/2026 10:43	255439
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 20:57	255439
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 14:14	255445
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 14:14	255445
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/08/2026 21:15	255445
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/05/2026 14:14	255445
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:26	255444
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:23	255444
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 16:28	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	04/24/2026 8:38	255514
Alachlor	NELAP	0.05		**ND**	µg/L	1	04/24/2026 8:38	255514
Aldrin	NELAP	0.04		**ND**	µg/L	1	04/24/2026 8:38	255514
Dieldrin	NELAP	0.04		**ND**	µg/L	1	04/24/2026 8:38	255514
Endrin	NELAP	0.04		**ND**	µg/L	1	04/24/2026 8:38	255514
gamma-BHC	NELAP	0.04		**ND**	µg/L	1	04/24/2026 8:38	255514
Heptachlor	NELAP	0.04		**ND**	µg/L	1	04/24/2026 8:38	255514

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 12:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
Heptachlor epoxide	NELAP	0.05		**ND**	µg/L	1	04/24/2026 8:38	255514
Methoxychlor	NELAP	0.05		**ND**	µg/L	1	04/24/2026 8:38	255514
Toxaphene	NELAP	1.06		**ND**	µg/L	1	04/24/2026 8:38	255514
Chlordane	NELAP	0.10		**ND**	µg/L	1	04/24/2026 8:38	255514
Surr: Decachlorobiphenyl	*	19.9-155		**100.4**	%REC	1	04/24/2026 8:38	255514
Surr: Tetrachloro-m-xylene	*	36.1-128		**64.8**	%REC	1	04/24/2026 8:38	255514
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	04/24/2026 13:48	255514
Surr: Decachlorobiphenyl	*	5-174		**97.1**	%REC	1	04/24/2026 13:48	255514
Surr: Tetrachloro-meta-xylene	*	22.2-139		**80.7**	%REC	1	04/24/2026 13:48	255514
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.21		**ND**	µg/L	1	04/27/2026 22:13	255414
2,4-D	NELAP	0.32		**ND**	µg/L	1	04/27/2026 22:13	255414
Dalapon	NELAP	1.38		**ND**	µg/L	1	04/27/2026 22:13	255414
Dinoseb	NELAP	0.21		**ND**	µg/L	1	04/27/2026 22:13	255414
Pentachlorophenol	NELAP	0.11		**ND**	µg/L	1	04/27/2026 22:13	255414
Picloram	NELAP	0.53		**ND**	µg/L	1	04/27/2026 22:13	255414
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**60.8**	%REC	1	04/27/2026 22:13	255414
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	0.98		**ND**	µg/L	1	04/27/2026 18:17	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 18:17	255504
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/27/2026 18:17	255504
Carbofuran	*	0.59		**ND**	µg/L	1	04/27/2026 18:17	255504
Simazine	*	0.54		**ND**	µg/L	1	04/27/2026 18:17	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**83.0**	%REC	1	04/27/2026 18:17	255504
Surr: 2-Fluorophenol	*	1-135		**57.2**	%REC	1	04/27/2026 18:17	255504
Surr: Nitrobenzene-d5	*	45-133		**85.3**	%REC	1	04/27/2026 18:17	255504
Surr: Phenol-d5	*	1-73.7		**37.6**	%REC	1	04/27/2026 18:17	255504
Surr: p-Terphenyl-d14	*	46.2-128		**82.6**	%REC	1	04/27/2026 18:17	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	5.9		**ND**	µg/L	1	04/24/2026 6:48	255427
Bis(chloromethyl)ether	*	9.8		**ND**	µg/L	1	04/24/2026 6:48	255427
Butyl benzyl phthalate	NELAP	4.9		**ND**	µg/L	1	04/24/2026 6:48	255427
Diethyl phthalate	NELAP	9.8		**ND**	µg/L	1	04/24/2026 6:48	255427
Dimethyl phthalate	NELAP	9.8		**ND**	µg/L	1	04/24/2026 6:48	255427
Di-n-butyl phthalate	NELAP	9.8		**ND**	µg/L	1	04/24/2026 6:48	255427
Isophorone	NELAP	9.8		**ND**	µg/L	1	04/24/2026 6:48	255427
m,p-Cresol	NELAP	9.8		**ND**	µg/L	1	04/24/2026 6:48	255427
Parathion	NELAP	4.9		**ND**	µg/L	1	04/24/2026 6:48	255427
Surr: 2,4,6-Tribromophenol	*	29-129		**74.7**	%REC	1	04/24/2026 6:48	255427
Surr: 2-Fluorobiphenyl	*	30.1-112		**62.2**	%REC	1	04/24/2026 6:48	255427
Surr: 2-Fluorophenol	*	18.7-95.3		**48.7**	%REC	1	04/24/2026 6:48	255427
Surr: Nitrobenzene-d5	*	23.6-113		**56.2**	%REC	1	04/24/2026 6:48	255427
Surr: Phenol-d5	*	15.9-72.2		**40.1**	%REC	1	04/24/2026 6:48	255427
Surr: p-Terphenyl-d14	*	17.9-114		**64.0**	%REC	1	04/24/2026 6:48	255427

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 12:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		ND	µg/L	1	04/24/2026 9:01	255511
1,2-Dibromoethane	*	0.05		ND	µg/L	1	04/24/2026 9:01	255511
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,1,1-Trichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,1,2,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,1,2-Trichloroethane	NELAP	0.50		ND	µg/L	1	04/24/2026 10:46	255667
1,1-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,1-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,2,3-Trichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,2,3-Trichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,2,4-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,2-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,2-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,3,5-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,3-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,3-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
1,4-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
2,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
2-Butanone	NELAP	5.00		ND	µg/L	1	04/24/2026 10:46	255667
2-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 10:46	255667
2-Hexanone	NELAP	10.0		ND	µg/L	1	04/24/2026 10:46	255667
4-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 10:46	255667
4-Methyl-2-pentanone	NELAP	5.00	B	ND	µg/L	1	04/24/2026 10:46	255667
Acetone	NELAP	5.10		ND	µg/L	1	04/24/2026 10:46	255667
Acrolein	NELAP	5.00		ND	µg/L	1	04/24/2026 10:46	255667
Acrylonitrile	NELAP	5.00		ND	µg/L	1	04/24/2026 10:46	255667
Benzene	NELAP	0.50		ND	µg/L	1	04/24/2026 10:46	255667
Bromobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Bromochloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 10:46	255667
Bromodichloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 10:46	255667
Bromoform	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Bromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Carbon disulfide	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Carbon tetrachloride	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Chlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Chloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Chloroform	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Chloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
cis-1,2-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
cis-1,3-Dichloropropene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Dibromochloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Dibromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Dichlorodifluoromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667
Ethylbenzene	NELAP	1.00		ND	µg/L	1	04/24/2026 10:46	255667
Hexachlorobutadiene	NELAP	2.00		ND	µg/L	1	04/24/2026 10:46	255667

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 12:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Methylene chloride	NELAP	2.00	B	**ND**	µg/L	1	04/24/2026 10:46	255667
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 10:46	255667
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Styrene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 10:46	255667
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/24/2026 10:46	255667
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Toluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/24/2026 10:46	255667
Surr: 1,2-Dichloroethane-d4	*	80-120		**107.7**	%REC	1	04/24/2026 10:46	255667
Surr: 4-Bromofluorobenzene	*	80-120		**93.9**	%REC	1	04/24/2026 10:46	255667
Surr: Dibromofluoromethane	*	80-120		**95.6**	%REC	1	04/24/2026 10:46	255667
Surr: Toluene-d8	*	80-120		**90.1**	%REC	1	04/24/2026 10:46	255667

Contamination present in the MBLK for multiple analytes. Sample results below the reporting limit are reportable per the TNI Standard.

Allowable Marginal Exceedance of Toluene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 9:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.05**	ft	1	04/23/2026 9:59	R383246
Depth to water	*	-5.00		**22.10**	ft	1	04/23/2026 9:59	R383246
Depth to water from measuring point	*	0		**24.71**	ft	1	04/23/2026 9:59	R383246
Elevation of groundwater surface	*	0		**532.49**	ft	1	04/23/2026 9:59	R383246
Measuring Point Elevation	*	0		**557.20**	ft	1	04/23/2026 9:59	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.3**	°F	1	04/23/2026 9:59	R383246
SW-846 9040B								
pH, Field	*	1.00		**6.68**		1	04/23/2026 9:59	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**553**	µmhos/cm @25C	1	04/23/2026 9:59	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	04/28/2026 16:34	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**2.81**	mg/L	1	04/24/2026 17:48	R382849
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**2.77**	mg/L	1	04/24/2026 17:45	R382849
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 19:28	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/24/2026 17:44	R382876
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**480**	mg/L	1	04/27/2026 10:20	R383124
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 21:11	255476
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:38	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 16:12	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**5.89**	mg/L	10	04/26/2026 6:40	R382935
Sulfate	NELAP	10.0		**ND**	mg/L	10	04/26/2026 6:40	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 6:28	R382935
Chloride	NELAP	5.00		**5.85**	mg/L	10	04/26/2026 6:28	R382935
Sulfate	NELAP	10.0		**ND**	mg/L	10	04/26/2026 6:28	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	1.0		**3.7**	mg/L	1	04/28/2026 14:24	R383084
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/28/2026 12:09	R383018
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**92.6**	µg/L	1	04/27/2026 22:26	255519
Cadmium	NELAP	2.0	B	**< 2.0**	µg/L	1	04/27/2026 22:26	255519
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/27/2026 22:26	255519

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 9:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Magnesium	NELAP	0.050		**44.1**	mg/L	1	04/30/2026 12:22	255519
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/27/2026 22:26	255519
Contamination present in the MBLK for Cd. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**< 25.0**	µg/L	1	05/01/2026 12:02	255531
Barium	NELAP	2.5		**202**	µg/L	1	05/01/2026 12:02	255531
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/01/2026 12:02	255531
Boron	NELAP	20.0		**116**	µg/L	1	05/01/2026 12:02	255531
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/01/2026 12:02	255531
Calcium	NELAP	0.100		**107**	mg/L	1	04/27/2026 17:37	255531
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:02	255531
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:02	255531
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:02	255531
Iron	NELAP	40.0		**6610**	µg/L	1	05/01/2026 12:02	255531
Magnesium	NELAP	0.500		**58.8**	mg/L	10	04/30/2026 16:11	255531
Manganese	NELAP	7.0		**89.9**	µg/L	1	05/01/2026 12:02	255531
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:02	255531
Potassium	NELAP	0.100		**1.65**	mg/L	1	04/27/2026 17:37	255531
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/01/2026 12:02	255531
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/01/2026 12:02	255531
Sodium	NELAP	0.050		**14.4**	mg/L	1	04/27/2026 17:37	255531
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 12:02	255531
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 12:02	255531
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**5.5**	µg/L	5	05/12/2026 18:43	255519
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 0:00	255519
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/13/2026 17:23	255531
Arsenic	NELAP	1.0		**6.2**	µg/L	5	05/13/2026 17:23	255531
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/04/2026 22:36	255531
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/14/2026 22:46	255531
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/27/2026 16:00	255547
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/27/2026 15:58	255547
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 16:42	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	04/28/2026 10:55	255656
Alachlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 10:55	255656
Aldrin	NELAP	0.04		**ND**	µg/L	1	04/28/2026 10:55	255656
Dieldrin	NELAP	0.04		**ND**	µg/L	1	04/28/2026 10:55	255656
Endrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 10:55	255656
gamma-BHC	NELAP	0.04		**ND**	µg/L	1	04/28/2026 10:55	255656
Heptachlor	NELAP	0.04		**ND**	µg/L	1	04/28/2026 10:55	255656
Heptachlor epoxide	NELAP	0.05		**ND**	µg/L	1	04/28/2026 10:55	255656

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 9:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
Methoxychlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 10:55	255656
Toxaphene	NELAP	1.01		**ND**	µg/L	1	04/28/2026 10:55	255656
Chlordane	NELAP	0.05		**ND**	µg/L	1	04/28/2026 10:55	255656
Surr: Decachlorobiphenyl	*	19.9-155		**77.0**	%REC	1	04/28/2026 10:55	255656
Surr: Tetrachloro-m-xylene	*	36.1-128		**73.4**	%REC	1	04/28/2026 10:55	255656
Matrix spike recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable.								
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.495		**ND**	µg/L	1	04/28/2026 11:03	255656
Surr: Decachlorobiphenyl	*	5-174		**86.1**	%REC	1	04/28/2026 11:03	255656
Surr: Tetrachloro-meta-xylene	*	22.2-139		**87.3**	%REC	1	04/28/2026 11:03	255656
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.21		**ND**	µg/L	1	04/28/2026 5:14	255594
2,4-D	NELAP	0.31		**ND**	µg/L	1	04/28/2026 5:14	255594
Dalapon	NELAP	1.34	S	**ND**	µg/L	1	04/28/2026 5:14	255594
Dinoseb	NELAP	0.21		**ND**	µg/L	1	04/28/2026 5:14	255594
Pentachlorophenol	NELAP	0.10		**ND**	µg/L	1	04/28/2026 5:14	255594
Picloram	NELAP	0.52		**ND**	µg/L	1	04/28/2026 5:14	255594
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**95.1**	%REC	1	04/28/2026 5:14	255594
Matrix spike did not recover within control limits for Dalapon due to matrix interference.								
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.04		**ND**	µg/L	1	04/27/2026 16:08	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 16:08	255504
Benzo(a)pyrene	*	0.16		**ND**	µg/L	1	04/27/2026 16:08	255504
Carbofuran	*	0.62		**ND**	µg/L	1	04/27/2026 16:08	255504
Simazine	*	0.57		**ND**	µg/L	1	04/27/2026 16:08	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**89.6**	%REC	1	04/27/2026 16:08	255504
Surr: 2-Fluorophenol	*	1-135		**64.0**	%REC	1	04/27/2026 16:08	255504
Surr: Nitrobenzene-d5	*	45-133		**92.6**	%REC	1	04/27/2026 16:08	255504
Surr: Phenol-d5	*	1-73.7		**41.8**	%REC	1	04/27/2026 16:08	255504
Surr: p-Terphenyl-d14	*	46.2-128		**92.4**	%REC	1	04/27/2026 16:08	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	5.9	S	**ND**	µg/L	1	04/29/2026 9:24	255726
Bis(chloromethyl)ether	*	9.9		**ND**	µg/L	1	04/29/2026 9:24	255726
Butyl benzyl phthalate	NELAP	4.9		**ND**	µg/L	1	04/29/2026 9:24	255726
Diethyl phthalate	NELAP	9.9		**ND**	µg/L	1	04/29/2026 9:24	255726
Dimethyl phthalate	NELAP	9.9		**ND**	µg/L	1	04/29/2026 9:24	255726
Di-n-butyl phthalate	NELAP	9.9	S	**ND**	µg/L	1	04/29/2026 9:24	255726
Isophorone	NELAP	9.9		**ND**	µg/L	1	04/29/2026 9:24	255726
m,p-Cresol	NELAP	9.9		**ND**	µg/L	1	04/29/2026 9:24	255726
Parathion	NELAP	4.9		**ND**	µg/L	1	04/29/2026 9:24	255726
Surr: 2,4,6-Tribromophenol	*	29-129		**80.6**	%REC	1	04/29/2026 9:24	255726
Surr: 2-Fluorobiphenyl	*	30.1-112		**65.9**	%REC	1	04/29/2026 9:24	255726
Surr: 2-Fluorophenol	*	18.7-95.3		**53.4**	%REC	1	04/29/2026 9:24	255726
Surr: Nitrobenzene-d5	*	23.6-113		**60.8**	%REC	1	04/29/2026 9:24	255726
Surr: Phenol-d5	*	15.9-72.2		**42.4**	%REC	1	04/29/2026 9:24	255726

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 9:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Surr: p-Terphenyl-d14	*	17.9-114		**63.2**	%REC	1	04/29/2026 9:24	255726
Matrix spike did not recover within control limits due to sample composition.								
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		**ND**	µg/L	1	04/24/2026 15:56	255587
1,2-Dibromoethane	*	0.05		**ND**	µg/L	1	04/24/2026 15:56	255587
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,1,1-Trichloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,1,2,2-Tetrachloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,1,2-Trichloroethane	NELAP	0.50		**ND**	µg/L	1	04/28/2026 12:43	255771
1,1-Dichloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,1-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,2,3-Trichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,2,3-Trichloropropane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,2,4-Trimethylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,2-Dichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,2-Dichloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,2-Dichloropropane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,3,5-Trimethylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,3-Dichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,3-Dichloropropane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,4-Dichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
2,2-Dichloropropane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
2-Butanone	NELAP	5.00		**ND**	µg/L	1	04/28/2026 12:43	255771
2-Chlorotoluene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 12:43	255771
2-Hexanone	NELAP	10.0		**ND**	µg/L	1	04/28/2026 12:43	255771
4-Chlorotoluene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 12:43	255771
4-Methyl-2-pentanone	NELAP	5.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Acetone	NELAP	5.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Acrolein	NELAP	5.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Acrylonitrile	NELAP	5.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Benzene	NELAP	0.50		**ND**	µg/L	1	04/28/2026 12:43	255771
Bromobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Bromochloromethane	NELAP	1.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Bromodichloromethane	NELAP	1.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Bromoform	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Bromomethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Carbon disulfide	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Carbon tetrachloride	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Chlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Chloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Chloroform	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Chloromethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
cis-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
cis-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Dibromochloromethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Dibromomethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-002 **Client Sample ID:** G110

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 9:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dichlorodifluoromethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Ethylbenzene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Hexachlorobutadiene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Methylene chloride	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 12:43	255771
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Styrene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 12:43	255771
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/28/2026 12:43	255771
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Toluene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/28/2026 12:43	255771
Surr: 1,2-Dichloroethane-d4	*	80-120	S	**122.5**	%REC	1	04/28/2026 12:43	255771
Surr: 4-Bromofluorobenzene	*	80-120		**108.1**	%REC	1	04/28/2026 12:43	255771
Surr: Dibromofluoromethane	*	80-120		**103.7**	%REC	1	04/28/2026 12:43	255771
Surr: Toluene-d8	*	80-120		**106.8**	%REC	1	04/28/2026 12:43	255771

Surrogate recovery is outside control limits due to matrix interference.

Allowable Marginal Exceedance of 1,1,2,2-Tetrachloroethane and trans-1,4-Dichloro-2-butene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-003 **Client Sample ID:** R111

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.25**	ft	1	04/22/2026 11:31	R383246
Depth to water	*	-5.00		**25.22**	ft	1	04/22/2026 11:31	R383246
Depth to water from measuring point	*	0		**25.22**	ft	1	04/22/2026 11:31	R383246
Elevation of groundwater surface	*	0		**528.78**	ft	1	04/22/2026 11:31	R383246
Measuring Point Elevation	*	0		**554.00**	ft	1	04/22/2026 11:31	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.6**	°F	1	04/22/2026 11:31	R383246
SW-846 9040B								
pH, Field	*	1.00		**6.81**		1	04/22/2026 11:31	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**888**	µmhos/cm @25C	1	04/22/2026 11:31	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	7	SR	**< 7**	mg/L	1	04/28/2026 16:34	R383034
Matrix spike and RPD did not recover within control limits.								
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**3.32**	mg/L	1	04/23/2026 14:49	R382764
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.20		**3.34**	mg/L	2	04/24/2026 17:53	R382849
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 17:39	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 19:09	R382815
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**850**	mg/L	1	04/24/2026 14:29	R383030
Stable weight could not be achieved after multiple cycles of drying, cooling, and weighing. Final weight is reported.								
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 16:38	255472
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:38	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 16:38	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**197**	mg/L	10	04/26/2026 7:06	R382935
Sulfate	NELAP	10.0		**31.2**	mg/L	10	04/26/2026 7:06	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 6:53	R382935
Chloride	NELAP	5.00		**176**	mg/L	10	04/26/2026 6:53	R382935
Sulfate	NELAP	10.0		**24.9**	mg/L	10	04/26/2026 6:53	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	1.0		**2.5**	mg/L	1	04/22/2026 21:48	R382728
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/27/2026 14:38	R382981
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**3930**	µg/L	1	04/24/2026 20:42	255439

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-003 **Client Sample ID:** R111

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/24/2026 20:42	255439
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/24/2026 20:42	255439
Magnesium	NELAP	0.050	S	**69.9**	mg/L	1	04/24/2026 20:42	255439
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/24/2026 20:42	255439
Matrix spike control limits for Mg are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**101**	µg/L	1	05/01/2026 10:53	255445
Barium	NELAP	2.5		**632**	µg/L	1	05/01/2026 10:53	255445
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/01/2026 10:53	255445
Boron	NELAP	20.0		**3430**	µg/L	1	05/01/2026 10:53	255445
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/01/2026 10:53	255445
Calcium	NELAP	0.100		**159**	mg/L	1	04/27/2026 19:50	255445
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:53	255445
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:53	255445
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:53	255445
Iron	NELAP	40.0		**11400**	µg/L	1	05/01/2026 10:53	255445
Magnesium	NELAP	0.050		**68.6**	mg/L	1	05/01/2026 10:53	255445
Manganese	NELAP	7.0		**113**	µg/L	1	05/01/2026 10:53	255445
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:53	255445
Potassium	NELAP	0.100		**2.05**	mg/L	1	04/27/2026 19:50	255445
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/01/2026 10:53	255445
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/01/2026 10:53	255445
Sodium	NELAP	0.050	B	**35.8**	mg/L	1	04/27/2026 19:50	255445
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 10:53	255445
Zinc	NELAP	10.0	B	**< 10.0**	µg/L	1	05/01/2026 10:53	255445
Contamination present in the MBLK for Zn. Sample results below the reporting limit are reportable per the TNI Standard.								
Sample result(s) for Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**13.6**	µg/L	5	05/09/2026 3:11	255439
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 21:02	255439
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 14:16	255445
Arsenic	NELAP	1.0		**14.7**	µg/L	5	05/05/2026 14:16	255445
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/08/2026 21:18	255445
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/05/2026 14:16	255445
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:34	255444
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:28	255444
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 16:57	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:36	255656
Alachlor	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:36	255656
Aldrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 11:36	255656
Dieldrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 11:36	255656

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-003 **Client Sample ID:** R111

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
Endrin	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:36	255656
gamma-BHC	NELAP	0.05		**ND**	µg/L	1	04/28/2026 11:36	255656
Heptachlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 11:36	255656
Heptachlor epoxide	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:36	255656
Methoxychlor	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:36	255656
Toxaphene	NELAP	1.20		**ND**	µg/L	1	04/28/2026 11:36	255656
Chlordane	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:36	255656
Surr: Decachlorobiphenyl	*	19.9-155		**62.9**	%REC	1	04/28/2026 11:36	255656
Surr: Tetrachloro-m-xylene	*	36.1-128		**73.0**	%REC	1	04/28/2026 11:36	255656
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.494		**ND**	µg/L	1	04/28/2026 11:18	255656
Surr: Decachlorobiphenyl	*	5-174		**58.5**	%REC	1	04/28/2026 11:18	255656
Surr: Tetrachloro-meta-xylene	*	22.2-139		**85.9**	%REC	1	04/28/2026 11:18	255656
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.40		**ND**	µg/L	1	04/27/2026 22:38	255414
2,4-D	NELAP	0.60		**ND**	µg/L	1	04/27/2026 22:38	255414
Dalapon	NELAP	2.60		**ND**	µg/L	1	04/27/2026 22:38	255414
Dinoseb	NELAP	0.40		**ND**	µg/L	1	04/27/2026 22:38	255414
Pentachlorophenol	NELAP	0.20		**ND**	µg/L	1	04/27/2026 22:38	255414
Picloram	NELAP	1.00		**ND**	µg/L	1	04/27/2026 22:38	255414
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**71.7**	%REC	1	04/27/2026 22:38	255414
Elevated reporting limit due to sample composition.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	04/27/2026 17:45	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 17:45	255504
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/27/2026 17:45	255504
Carbofuran	*	0.60		**ND**	µg/L	1	04/27/2026 17:45	255504
Simazine	*	0.55		**ND**	µg/L	1	04/27/2026 17:45	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**80.1**	%REC	1	04/27/2026 17:45	255504
Surr: 2-Fluorophenol	*	1-135		**55.2**	%REC	1	04/27/2026 17:45	255504
Surr: Nitrobenzene-d5	*	45-133		**81.8**	%REC	1	04/27/2026 17:45	255504
Surr: Phenol-d5	*	1-73.7		**37.4**	%REC	1	04/27/2026 17:45	255504
Surr: p-Terphenyl-d14	*	46.2-128		**90.2**	%REC	1	04/27/2026 17:45	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	04/24/2026 7:20	255427
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	04/24/2026 7:20	255427
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	04/24/2026 7:20	255427
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/24/2026 7:20	255427
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/24/2026 7:20	255427
Di-n-butyl phthalate	NELAP	10.0		**15.9**	µg/L	1	04/24/2026 7:20	255427
Isophorone	NELAP	10.0		**ND**	µg/L	1	04/24/2026 7:20	255427
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	04/24/2026 7:20	255427
Parathion	NELAP	5.0		**ND**	µg/L	1	04/24/2026 7:20	255427
Surr: 2,4,6-Tribromophenol	*	29-129		**66.5**	%REC	1	04/24/2026 7:20	255427
Surr: 2-Fluorobiphenyl	*	30.1-112		**55.6**	%REC	1	04/24/2026 7:20	255427
Surr: 2-Fluorophenol	*	18.7-95.3		**45.3**	%REC	1	04/24/2026 7:20	255427

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-003 **Client Sample ID:** R111

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Surr: Nitrobenzene-d5	*	23.6-113		**51.9**	%REC	1	04/24/2026 7:20	255427
Surr: Phenol-d5	*	15.9-72.2		**36.6**	%REC	1	04/24/2026 7:20	255427
Surr: p-Terphenyl-d14	*	17.9-114		**61.3**	%REC	1	04/24/2026 7:20	255427
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		**ND**	µg/L	1	04/24/2026 9:13	255511
1,2-Dibromoethane	*	0.05		**ND**	µg/L	1	04/24/2026 9:13	255511
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,1,1-Trichloroethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,1,2,2-Tetrachloroethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,1,2-Trichloroethane	NELAP	0.50		**ND**	µg/L	1	04/24/2026 11:11	255667
1,1-Dichloroethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,1-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,2,3-Trichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,2,3-Trichloropropane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,2,4-Trimethylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,2-Dichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,2-Dichloroethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,2-Dichloropropane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,3,5-Trimethylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,3-Dichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,3-Dichloropropane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,4-Dichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
2,2-Dichloropropane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
2-Butanone	NELAP	5.00		**ND**	µg/L	1	04/24/2026 11:11	255667
2-Chlorotoluene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 11:11	255667
2-Hexanone	NELAP	10.0		**ND**	µg/L	1	04/24/2026 11:11	255667
4-Chlorotoluene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 11:11	255667
4-Methyl-2-pentanone	NELAP	5.00	B	**ND**	µg/L	1	04/24/2026 11:11	255667
Acetone	NELAP	5.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Acrolein	NELAP	5.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Acrylonitrile	NELAP	5.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Benzene	NELAP	0.50		**ND**	µg/L	1	04/24/2026 11:11	255667
Bromobenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Bromochloromethane	NELAP	1.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Bromodichloromethane	NELAP	1.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Bromoform	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Bromomethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Carbon disulfide	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Carbon tetrachloride	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Chlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Chloroethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Chloroform	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Chloromethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
cis-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
cis-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Dibromochloromethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-003 **Client Sample ID:** R111

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromomethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Dichlorodifluoromethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Ethylbenzene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Hexachlorobutadiene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Methylene chloride	NELAP	2.00	B	**ND**	µg/L	1	04/24/2026 11:11	255667
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 11:11	255667
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Styrene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 11:11	255667
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/24/2026 11:11	255667
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Toluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/24/2026 11:11	255667
Surr: 1,2-Dichloroethane-d4	*	80-120		**106.0**	%REC	1	04/24/2026 11:11	255667
Surr: 4-Bromofluorobenzene	*	80-120		**98.2**	%REC	1	04/24/2026 11:11	255667
Surr: Dibromofluoromethane	*	80-120		**96.6**	%REC	1	04/24/2026 11:11	255667
Surr: Toluene-d8	*	80-120		**103.6**	%REC	1	04/24/2026 11:11	255667

Contamination present in the MBLK for multiple analytes. Sample results below the reporting limit are reportable per the TNI Standard.

Allowable Marginal Exceedance of Toluene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-004 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 11:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.99**	ft	1	04/23/2026 11:04	R383246
Depth to water	*	-5.00		**25.69**	ft	1	04/23/2026 11:04	R383246
Depth to water from measuring point	*	0		**27.87**	ft	1	04/23/2026 11:04	R383246
Elevation of groundwater surface	*	0		**526.93**	ft	1	04/23/2026 11:04	R383246
Measuring Point Elevation	*	0		**554.80**	ft	1	04/23/2026 11:04	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.1**	°F	1	04/23/2026 11:04	R383246
SW-846 9040B								
pH, Field	*	1.00		**7.02**		1	04/23/2026 11:04	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**965**	µmhos/cm @25C	1	04/23/2026 11:04	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	04/28/2026 16:34	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**4.48**	mg/L	1	04/24/2026 18:03	R382849
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**4.63**	mg/L	1	04/27/2026 18:22	R382991
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 19:29	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/24/2026 17:45	R382876
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**1080**	mg/L	1	04/27/2026 10:20	R383124
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 21:15	255476
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:38	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 16:55	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**170**	mg/L	10	04/26/2026 7:31	R382935
Sulfate	NELAP	10.0		**247**	mg/L	10	04/26/2026 7:31	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 7:18	R382935
Chloride	NELAP	5.00		**166**	mg/L	10	04/26/2026 7:18	R382935
Sulfate	NELAP	10.0		**243**	mg/L	10	04/26/2026 7:18	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	1.0		**2.9**	mg/L	1	04/28/2026 14:30	R383084
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/28/2026 12:04	R383018
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**477**	µg/L	1	04/27/2026 22:38	255519
Cadmium	NELAP	2.0	B	**< 2.0**	µg/L	1	04/27/2026 22:38	255519
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/27/2026 22:38	255519

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-004 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 11:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Magnesium	NELAP	0.050	S	**71.3**	mg/L	1	04/30/2026 12:23	255519
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/27/2026 22:38	255519
Matrix spike control limits for Mg are not applicable due to high sample/spike ratio.								
Contamination present in the MBLK for Cd. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**< 25.0**	µg/L	1	05/01/2026 12:04	255531
Barium	NELAP	2.5		**523**	µg/L	1	05/01/2026 12:04	255531
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/01/2026 12:04	255531
Boron	NELAP	20.0		**616**	µg/L	1	05/01/2026 12:04	255531
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/01/2026 12:04	255531
Calcium	NELAP	0.100		**216**	mg/L	1	04/27/2026 17:39	255531
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:04	255531
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:04	255531
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:04	255531
Iron	NELAP	40.0		**10600**	µg/L	1	05/01/2026 12:04	255531
Magnesium	NELAP	0.500		**98.5**	mg/L	10	04/30/2026 16:12	255531
Manganese	NELAP	7.0		**324**	µg/L	1	05/01/2026 12:04	255531
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:04	255531
Potassium	NELAP	0.100		**2.49**	mg/L	1	04/27/2026 17:39	255531
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/01/2026 12:04	255531
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/01/2026 12:04	255531
Sodium	NELAP	0.050		**32.0**	mg/L	1	04/27/2026 17:39	255531
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 12:04	255531
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 12:04	255531
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/12/2026 18:47	255519
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 0:04	255519
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/13/2026 17:27	255531
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/13/2026 17:27	255531
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/04/2026 22:40	255531
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/14/2026 22:49	255531
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/27/2026 16:04	255547
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/27/2026 16:02	255547
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 17:12	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.06		**ND**	µg/L	1	04/27/2026 13:01	255608
Alachlor	NELAP	0.06		**ND**	µg/L	1	04/27/2026 13:01	255608
Aldrin	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:01	255608
Dieldrin	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:01	255608
Endrin	NELAP	0.06		**ND**	µg/L	1	04/27/2026 13:01	255608
gamma-BHC	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:01	255608
Heptachlor	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:01	255608

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-004 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 11:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
Heptachlor epoxide	NELAP	0.06		**ND**	µg/L	1	04/27/2026 13:01	255608
Methoxychlor	NELAP	0.06		**ND**	µg/L	1	04/27/2026 13:01	255608
Toxaphene	NELAP	1.11		**ND**	µg/L	1	04/27/2026 13:01	255608
Chlordane	NELAP	0.06		**ND**	µg/L	1	04/27/2026 13:01	255608
Surr: Decachlorobiphenyl	*	19.9-155		**50.1**	%REC	1	04/27/2026 13:01	255608
Surr: Tetrachloro-m-xylene	*	36.1-128		**63.4**	%REC	1	04/27/2026 13:01	255608
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	04/27/2026 13:13	255608
Surr: Decachlorobiphenyl	*	5-174		**42.9**	%REC	1	04/27/2026 13:13	255608
Surr: Tetrachloro-meta-xylene	*	22.2-139		**77.0**	%REC	1	04/27/2026 13:13	255608
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.21		**ND**	µg/L	1	04/27/2026 23:03	255594
2,4-D	NELAP	0.31		**ND**	µg/L	1	04/27/2026 23:03	255594
Dalapon	NELAP	1.35		**ND**	µg/L	1	04/27/2026 23:03	255594
Dinoseb	NELAP	0.21		**ND**	µg/L	1	04/27/2026 23:03	255594
Pentachlorophenol	NELAP	0.10		**ND**	µg/L	1	04/27/2026 23:03	255594
Picloram	NELAP	0.52		**ND**	µg/L	1	04/27/2026 23:03	255594
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**84.2**	%REC	1	04/27/2026 23:03	255594
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	04/27/2026 18:50	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 18:50	255504
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/27/2026 18:50	255504
Carbofuran	*	0.60		**ND**	µg/L	1	04/27/2026 18:50	255504
Simazine	*	0.55		**ND**	µg/L	1	04/27/2026 18:50	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**71.0**	%REC	1	04/27/2026 18:50	255504
Surr: 2-Fluorophenol	*	1-135		**52.8**	%REC	1	04/27/2026 18:50	255504
Surr: Nitrobenzene-d5	*	45-133		**76.6**	%REC	1	04/27/2026 18:50	255504
Surr: Phenol-d5	*	1-73.7		**35.2**	%REC	1	04/27/2026 18:50	255504
Surr: p-Terphenyl-d14	*	46.2-128		**82.9**	%REC	1	04/27/2026 18:50	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	04/29/2026 11:00	255726
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	04/29/2026 11:00	255726
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	04/29/2026 11:00	255726
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 11:00	255726
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 11:00	255726
Di-n-butyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 11:00	255726
Isophorone	NELAP	10.0		**ND**	µg/L	1	04/29/2026 11:00	255726
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	04/29/2026 11:00	255726
Parathion	NELAP	5.0		**ND**	µg/L	1	04/29/2026 11:00	255726
Surr: 2,4,6-Tribromophenol	*	29-129		**57.6**	%REC	1	04/29/2026 11:00	255726
Surr: 2-Fluorobiphenyl	*	30.1-112		**47.3**	%REC	1	04/29/2026 11:00	255726
Surr: 2-Fluorophenol	*	18.7-95.3		**39.2**	%REC	1	04/29/2026 11:00	255726
Surr: Nitrobenzene-d5	*	23.6-113		**44.7**	%REC	1	04/29/2026 11:00	255726
Surr: Phenol-d5	*	15.9-72.2		**31.2**	%REC	1	04/29/2026 11:00	255726
Surr: p-Terphenyl-d14	*	17.9-114		**47.7**	%REC	1	04/29/2026 11:00	255726

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-004 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 11:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		ND	µg/L	1	04/24/2026 16:07	255587
1,2-Dibromoethane	*	0.05		ND	µg/L	1	04/24/2026 16:07	255587
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,1,1-Trichloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,1,2,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,1,2-Trichloroethane	NELAP	0.50		ND	µg/L	1	04/28/2026 13:07	255771
1,1-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,1-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,2,3-Trichlorobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,2,3-Trichloropropane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,2,4-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,2-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,2-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,3,5-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,3-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,3-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
1,4-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
2,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
2-Butanone	NELAP	5.00		ND	µg/L	1	04/28/2026 13:07	255771
2-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/28/2026 13:07	255771
2-Hexanone	NELAP	10.0		ND	µg/L	1	04/28/2026 13:07	255771
4-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/28/2026 13:07	255771
4-Methyl-2-pentanone	NELAP	5.00		ND	µg/L	1	04/28/2026 13:07	255771
Acetone	NELAP	5.00		ND	µg/L	1	04/28/2026 13:07	255771
Acrolein	NELAP	5.00		ND	µg/L	1	04/28/2026 13:07	255771
Acrylonitrile	NELAP	5.00		ND	µg/L	1	04/28/2026 13:07	255771
Benzene	NELAP	0.50		ND	µg/L	1	04/28/2026 13:07	255771
Bromobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Bromochloromethane	NELAP	1.00		ND	µg/L	1	04/28/2026 13:07	255771
Bromodichloromethane	NELAP	1.00		ND	µg/L	1	04/28/2026 13:07	255771
Bromoform	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Bromomethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Carbon disulfide	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Carbon tetrachloride	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Chlorobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Chloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Chloroform	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Chloromethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
cis-1,2-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
cis-1,3-Dichloropropene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Dibromochloromethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Dibromomethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Dichlorodifluoromethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771
Ethylbenzene	NELAP	1.00		ND	µg/L	1	04/28/2026 13:07	255771
Hexachlorobutadiene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:07	255771

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-004 **Client Sample ID:** G112

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 11:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Methylene chloride	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 13:07	255771
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Styrene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 13:07	255771
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/28/2026 13:07	255771
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Toluene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/28/2026 13:07	255771
Surr: 1,2-Dichloroethane-d4	*	80-120	S	**120.6**	%REC	1	04/28/2026 13:07	255771
Surr: 4-Bromofluorobenzene	*	80-120		**108.5**	%REC	1	04/28/2026 13:07	255771
Surr: Dibromofluoromethane	*	80-120		**102.4**	%REC	1	04/28/2026 13:07	255771
Surr: Toluene-d8	*	80-120		**105.8**	%REC	1	04/28/2026 13:07	255771

Surrogate recovery is outside control limits due to matrix interference.

Allowable Marginal Exceedance of 1,1,2,2-Tetrachloroethane and trans-1,4-Dichloro-2-butene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 10:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**524.85**	ft	1	04/23/2026 10:17	R383246
Depth to water	*	-5.00		**2.05**	ft	1	04/23/2026 10:17	R383246
Depth to water from measuring point	*	0		**4.55**	ft	1	04/23/2026 10:17	R383246
Elevation of groundwater surface	*	0		**533.15**	ft	1	04/23/2026 10:17	R383246
Measuring Point Elevation	*	0		**537.70**	ft	1	04/23/2026 10:17	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.0**	°F	1	04/23/2026 10:17	R383246
SW-846 9040B								
pH, Field	*	1.00		**6.08**		1	04/23/2026 10:17	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1670**	µmhos/cm @25C	1	04/23/2026 10:17	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	04/28/2026 16:34	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**0.93**	mg/L	1	04/24/2026 18:08	R382849
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**0.88**	mg/L	1	04/24/2026 18:05	R382849
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 19:30	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050	H	**< 0.050**	mg/L	1	04/27/2026 16:39	R382997
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**1670**	mg/L	1	04/27/2026 10:20	R383124
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**11**	mg/L	1	04/23/2026 21:19	255476
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**64**	mg/L	1	04/29/2026 22:39	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 17:04	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**70.1**	mg/L	10	04/26/2026 8:34	R382935
Sulfate	NELAP	10.0		**678**	mg/L	10	04/26/2026 8:34	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 8:22	R382935
Chloride	NELAP	5.00		**72.8**	mg/L	10	04/26/2026 8:22	R382935
Sulfate	NELAP	10.0		**707**	mg/L	10	04/26/2026 8:22	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	5.0		**7.6**	mg/L	5	04/28/2026 14:42	R383084
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/28/2026 12:16	R383018
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**1600**	µg/L	1	04/27/2026 22:43	255519
Cadmium	NELAP	2.0	B	**< 2.0**	µg/L	1	04/27/2026 22:43	255519
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/27/2026 22:43	255519

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 10:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Magnesium	NELAP	0.050		**70.5**	mg/L	1	04/30/2026 12:28	255519
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/27/2026 22:43	255519
Contamination present in the MBLK for Cd. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**107**	µg/L	1	05/01/2026 12:06	255531
Barium	NELAP	2.5		**132**	µg/L	1	05/01/2026 12:06	255531
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/01/2026 12:06	255531
Boron	NELAP	20.0		**2010**	µg/L	1	05/01/2026 12:06	255531
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/01/2026 12:06	255531
Calcium	NELAP	0.100		**299**	mg/L	1	04/27/2026 17:41	255531
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:06	255531
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:06	255531
Copper	NELAP	5.0		**10.0**	µg/L	1	05/01/2026 12:06	255531
Iron	NELAP	40.0		**4200**	µg/L	1	05/01/2026 12:06	255531
Magnesium	NELAP	0.500		**102**	mg/L	10	04/30/2026 16:14	255531
Manganese	NELAP	7.0		**9460**	µg/L	1	05/01/2026 12:06	255531
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:06	255531
Potassium	NELAP	0.100		**3.60**	mg/L	1	04/27/2026 17:41	255531
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/01/2026 12:06	255531
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/01/2026 12:06	255531
Sodium	NELAP	0.050		**24.6**	mg/L	1	04/27/2026 17:41	255531
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 12:06	255531
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 12:06	255531
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**1.5**	µg/L	5	05/13/2026 18:13	255519
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 0:17	255519
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/13/2026 17:30	255531
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	05/13/2026 17:30	255531
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/04/2026 22:44	255531
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/14/2026 22:53	255531
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/27/2026 16:13	255547
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/27/2026 16:07	255547
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 17:27	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:14	255608
Alachlor	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:14	255608
Aldrin	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:14	255608
Dieldrin	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:14	255608
Endrin	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:14	255608
gamma-BHC	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:14	255608
Heptachlor	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:14	255608
Heptachlor epoxide	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:14	255608

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 10:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
Methoxychlor	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:14	255608
Toxaphene	NELAP	1.04		**ND**	µg/L	1	04/27/2026 13:14	255608
Chlordane	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:14	255608
Surr: Decachlorobiphenyl	*	19.9-155		**71.4**	%REC	1	04/27/2026 13:14	255608
Surr: Tetrachloro-m-xylene	*	36.1-128		**52.9**	%REC	1	04/27/2026 13:14	255608
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	04/27/2026 13:29	255608
Surr: Decachlorobiphenyl	*	5-174		**60.5**	%REC	1	04/27/2026 13:29	255608
Surr: Tetrachloro-meta-xylene	*	22.2-139		**62.8**	%REC	1	04/27/2026 13:29	255608
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.40		**ND**	µg/L	1	04/27/2026 23:28	255594
2,4-D	NELAP	0.60		**ND**	µg/L	1	04/27/2026 23:28	255594
Dalapon	NELAP	2.60		**ND**	µg/L	1	04/27/2026 23:28	255594
Dinoseb	NELAP	0.40		**ND**	µg/L	1	04/27/2026 23:28	255594
Pentachlorophenol	NELAP	0.20		**ND**	µg/L	1	04/27/2026 23:28	255594
Picloram	NELAP	1.00		**ND**	µg/L	1	04/27/2026 23:28	255594
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**82.8**	%REC	1	04/27/2026 23:28	255594
Elevated reporting limit due to sample composition.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	04/27/2026 19:23	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 19:23	255504
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/27/2026 19:23	255504
Carbofuran	*	0.60		**ND**	µg/L	1	04/27/2026 19:23	255504
Simazine	*	0.55		**ND**	µg/L	1	04/27/2026 19:23	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**62.5**	%REC	1	04/27/2026 19:23	255504
Surr: 2-Fluorophenol	*	1-135		**37.8**	%REC	1	04/27/2026 19:23	255504
Surr: Nitrobenzene-d5	*	45-133		**65.7**	%REC	1	04/27/2026 19:23	255504
Surr: Phenol-d5	*	1-73.7		**27.4**	%REC	1	04/27/2026 19:23	255504
Surr: p-Terphenyl-d14	*	46.2-128		**61.7**	%REC	1	04/27/2026 19:23	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	04/29/2026 11:32	255726
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	04/29/2026 11:32	255726
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	04/29/2026 11:32	255726
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 11:32	255726
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 11:32	255726
Di-n-butyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 11:32	255726
Isophorone	NELAP	10.0		**ND**	µg/L	1	04/29/2026 11:32	255726
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	04/29/2026 11:32	255726
Parathion	NELAP	5.0		**ND**	µg/L	1	04/29/2026 11:32	255726
Surr: 2,4,6-Tribromophenol	*	29-129		**52.0**	%REC	1	04/29/2026 11:32	255726
Surr: 2-Fluorobiphenyl	*	30.1-112		**40.8**	%REC	1	04/29/2026 11:32	255726
Surr: 2-Fluorophenol	*	18.7-95.3		**32.0**	%REC	1	04/29/2026 11:32	255726
Surr: Nitrobenzene-d5	*	23.6-113		**38.1**	%REC	1	04/29/2026 11:32	255726
Surr: Phenol-d5	*	15.9-72.2		**25.5**	%REC	1	04/29/2026 11:32	255726
Surr: p-Terphenyl-d14	*	17.9-114		**39.3**	%REC	1	04/29/2026 11:32	255726

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 10:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		ND	µg/L	1	04/24/2026 16:18	255587
1,2-Dibromoethane	*	0.05		ND	µg/L	1	04/24/2026 16:18	255587
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,1,1-Trichloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,1,2,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,1,2-Trichloroethane	NELAP	0.50		ND	µg/L	1	04/28/2026 13:31	255771
1,1-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,1-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,2,3-Trichlorobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,2,3-Trichloropropane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,2,4-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,2-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,2-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,3,5-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,3-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,3-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
1,4-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
2,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
2-Butanone	NELAP	5.00		ND	µg/L	1	04/28/2026 13:31	255771
2-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/28/2026 13:31	255771
2-Hexanone	NELAP	10.0		ND	µg/L	1	04/28/2026 13:31	255771
4-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/28/2026 13:31	255771
4-Methyl-2-pentanone	NELAP	5.00		ND	µg/L	1	04/28/2026 13:31	255771
Acetone	NELAP	5.00		ND	µg/L	1	04/28/2026 13:31	255771
Acrolein	NELAP	5.00		ND	µg/L	1	04/28/2026 13:31	255771
Acrylonitrile	NELAP	5.00		ND	µg/L	1	04/28/2026 13:31	255771
Benzene	NELAP	0.50		ND	µg/L	1	04/28/2026 13:31	255771
Bromobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Bromochloromethane	NELAP	1.00		ND	µg/L	1	04/28/2026 13:31	255771
Bromodichloromethane	NELAP	1.00		ND	µg/L	1	04/28/2026 13:31	255771
Bromoform	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Bromomethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Carbon disulfide	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Carbon tetrachloride	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Chlorobenzene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Chloroethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Chloroform	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Chloromethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
cis-1,2-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
cis-1,3-Dichloropropene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Dibromochloromethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Dibromomethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Dichlorodifluoromethane	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771
Ethylbenzene	NELAP	1.00		ND	µg/L	1	04/28/2026 13:31	255771
Hexachlorobutadiene	NELAP	2.00		ND	µg/L	1	04/28/2026 13:31	255771

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-005 **Client Sample ID:** G113

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 10:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Methylene chloride	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 13:31	255771
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Styrene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 13:31	255771
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/28/2026 13:31	255771
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Toluene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/28/2026 13:31	255771
Surr: 1,2-Dichloroethane-d4	*	80-120	S	**121.1**	%REC	1	04/28/2026 13:31	255771
Surr: 4-Bromofluorobenzene	*	80-120		**110.5**	%REC	1	04/28/2026 13:31	255771
Surr: Dibromofluoromethane	*	80-120		**102.9**	%REC	1	04/28/2026 13:31	255771
Surr: Toluene-d8	*	80-120		**105.8**	%REC	1	04/28/2026 13:31	255771

Surrogate recovery is outside control limits due to matrix interference.

Allowable Marginal Exceedance of 1,1,2,2-Tetrachloroethane and trans-1,4-Dichloro-2-butene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-006 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 10:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	04/22/2026 10:23	R383246
Depth to water	*	-5.00		**16.43**	ft	1	04/22/2026 10:23	R383246
Depth to water from measuring point	*	0		**16.43**	ft	1	04/22/2026 10:23	R383246
Elevation of groundwater surface	*	0		**536.67**	ft	1	04/22/2026 10:23	R383246
Measuring Point Elevation	*	0		**553.10**	ft	1	04/22/2026 10:23	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.8**	°F	1	04/22/2026 10:23	R383246
SW-846 9040B								
pH, Field	*	1.00		**6.69**		1	04/22/2026 10:23	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1780**	µmhos/cm @25C	1	04/22/2026 10:23	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	04/28/2026 16:34	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**3.82**	mg/L	1	04/23/2026 14:54	R382764
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**3.84**	mg/L	1	04/23/2026 14:51	R382764
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 17:40	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 19:10	R382815
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**1590**	mg/L	1	04/24/2026 14:29	R383030
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 16:42	255472
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:39	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 17:08	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**36.2**	mg/L	10	04/26/2026 9:00	R382935
Sulfate	NELAP	10.0		**565**	mg/L	10	04/26/2026 9:00	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 8:47	R382935
Chloride	NELAP	5.00		**36.1**	mg/L	10	04/26/2026 8:47	R382935
Sulfate	NELAP	10.0		**562**	mg/L	10	04/26/2026 8:47	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	1.0		**4.6**	mg/L	1	04/22/2026 21:54	R382728
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/27/2026 14:03	R382981
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**7460**	µg/L	1	04/24/2026 20:47	255439
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/24/2026 20:47	255439
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/24/2026 20:47	255439

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-006 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 10:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Magnesium	NELAP	0.050		**103**	mg/L	1	04/24/2026 20:47	255439
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/24/2026 20:47	255439
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**< 25.0**	µg/L	1	05/01/2026 10:55	255445
Barium	NELAP	2.5		**540**	µg/L	1	05/01/2026 10:55	255445
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/01/2026 10:55	255445
Boron	NELAP	20.0		**7670**	µg/L	1	05/01/2026 10:55	255445
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/01/2026 10:55	255445
Calcium	NELAP	0.100		**251**	mg/L	1	04/27/2026 19:51	255445
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:55	255445
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:55	255445
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:55	255445
Iron	NELAP	40.0		**31800**	µg/L	1	05/01/2026 10:55	255445
Magnesium	NELAP	0.050		**106**	mg/L	1	05/01/2026 10:55	255445
Manganese	NELAP	7.0		**400**	µg/L	1	05/01/2026 10:55	255445
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:55	255445
Potassium	NELAP	0.100		**1.99**	mg/L	1	04/27/2026 19:51	255445
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/01/2026 10:55	255445
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/01/2026 10:55	255445
Sodium	NELAP	0.050	B	**42.4**	mg/L	1	04/27/2026 19:51	255445
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 10:55	255445
Zinc	NELAP	10.0	B	**< 10.0**	µg/L	1	05/01/2026 10:55	255445
Contamination present in the MBLK for Zn. Sample results below the reporting limit are reportable per the TNI Standard.								
Sample result(s) for Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**9.7**	µg/L	5	05/23/2026 10:38	257064
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 21:14	255439
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 14:19	255445
Arsenic	NELAP	1.0		**10.5**	µg/L	5	05/05/2026 14:19	255445
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/08/2026 21:42	255445
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/05/2026 14:19	255445
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:43	255444
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:41	255444
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 19:09	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:27	255608
Alachlor	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:27	255608
Aldrin	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:27	255608
Dieldrin	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:27	255608
Endrin	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:27	255608
gamma-BHC	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:27	255608
Heptachlor	NELAP	0.04		**ND**	µg/L	1	04/27/2026 13:27	255608

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-006 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 10:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
Heptachlor epoxide	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:27	255608
Methoxychlor	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:27	255608
Toxaphene	NELAP	1.02		**ND**	µg/L	1	04/27/2026 13:27	255608
Chlordane	NELAP	0.05		**ND**	µg/L	1	04/27/2026 13:27	255608
Surr: Decachlorobiphenyl	*	19.9-155		**45.5**	%REC	1	04/27/2026 13:27	255608
Surr: Tetrachloro-m-xylene	*	36.1-128		**57.0**	%REC	1	04/27/2026 13:27	255608
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	04/27/2026 13:45	255608
Surr: Decachlorobiphenyl	*	5-174		**40.3**	%REC	1	04/27/2026 13:45	255608
Surr: Tetrachloro-meta-xylene	*	22.2-139		**68.8**	%REC	1	04/27/2026 13:45	255608
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.40		**ND**	µg/L	1	04/27/2026 23:53	255414
2,4-D	NELAP	0.60		**ND**	µg/L	1	04/27/2026 23:53	255414
Dalapon	NELAP	2.60		**ND**	µg/L	1	04/27/2026 23:53	255414
Dinoseb	NELAP	0.40		**ND**	µg/L	1	04/27/2026 23:53	255414
Pentachlorophenol	NELAP	0.20		**ND**	µg/L	1	04/27/2026 23:53	255414
Picloram	NELAP	1.00		**ND**	µg/L	1	04/27/2026 23:53	255414
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**76.0**	%REC	1	04/27/2026 23:53	255414
Elevated reporting limit due to sample composition.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	04/27/2026 19:55	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 19:55	255504
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/27/2026 19:55	255504
Carbofuran	*	0.60		**ND**	µg/L	1	04/27/2026 19:55	255504
Simazine	*	0.55		**ND**	µg/L	1	04/27/2026 19:55	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**69.1**	%REC	1	04/27/2026 19:55	255504
Surr: 2-Fluorophenol	*	1-135		**48.5**	%REC	1	04/27/2026 19:55	255504
Surr: Nitrobenzene-d5	*	45-133		**72.9**	%REC	1	04/27/2026 19:55	255504
Surr: Phenol-d5	*	1-73.7		**33.4**	%REC	1	04/27/2026 19:55	255504
Surr: p-Terphenyl-d14	*	46.2-128		**77.3**	%REC	1	04/27/2026 19:55	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	04/29/2026 12:04	255726
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	04/29/2026 12:04	255726
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	04/29/2026 12:04	255726
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 12:04	255726
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 12:04	255726
Di-n-butyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 12:04	255726
Isophorone	NELAP	10.0		**ND**	µg/L	1	04/29/2026 12:04	255726
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	04/29/2026 12:04	255726
Parathion	NELAP	5.0		**ND**	µg/L	1	04/29/2026 12:04	255726
Surr: 2,4,6-Tribromophenol	*	29-129		**57.2**	%REC	1	04/29/2026 12:04	255726
Surr: 2-Fluorobiphenyl	*	30.1-112		**43.3**	%REC	1	04/29/2026 12:04	255726
Surr: 2-Fluorophenol	*	18.7-95.3		**36.0**	%REC	1	04/29/2026 12:04	255726
Surr: Nitrobenzene-d5	*	23.6-113		**39.9**	%REC	1	04/29/2026 12:04	255726
Surr: Phenol-d5	*	15.9-72.2		**29.1**	%REC	1	04/29/2026 12:04	255726
Surr: p-Terphenyl-d14	*	17.9-114		**48.4**	%REC	1	04/29/2026 12:04	255726

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-006 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 10:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		ND	µg/L	1	04/24/2026 9:24	255511
1,2-Dibromoethane	*	0.05		ND	µg/L	1	04/24/2026 9:24	255511
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,1,1-Trichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,1,2,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,1,2-Trichloroethane	NELAP	0.50		ND	µg/L	1	04/24/2026 12:28	255667
1,1-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,1-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,2,3-Trichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,2,3-Trichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,2,4-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,2-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,2-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,3,5-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,3-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,3-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
1,4-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
2,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
2-Butanone	NELAP	5.00		ND	µg/L	1	04/24/2026 12:28	255667
2-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 12:28	255667
2-Hexanone	NELAP	10.0		ND	µg/L	1	04/24/2026 12:28	255667
4-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 12:28	255667
4-Methyl-2-pentanone	NELAP	5.00	B	ND	µg/L	1	04/24/2026 12:28	255667
Acetone	NELAP	5.00		ND	µg/L	1	04/24/2026 12:28	255667
Acrolein	NELAP	5.00		ND	µg/L	1	04/24/2026 12:28	255667
Acrylonitrile	NELAP	5.00		ND	µg/L	1	04/24/2026 12:28	255667
Benzene	NELAP	0.50		ND	µg/L	1	04/24/2026 12:28	255667
Bromobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Bromochloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 12:28	255667
Bromodichloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 12:28	255667
Bromoform	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Bromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Carbon disulfide	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Carbon tetrachloride	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Chlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Chloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Chloroform	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Chloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
cis-1,2-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
cis-1,3-Dichloropropene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Dibromochloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Dibromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Dichlorodifluoromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667
Ethylbenzene	NELAP	1.00		ND	µg/L	1	04/24/2026 12:28	255667
Hexachlorobutadiene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:28	255667

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-006 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 10:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Methylene chloride	NELAP	2.00	B	**ND**	µg/L	1	04/24/2026 12:28	255667
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 12:28	255667
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Styrene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 12:28	255667
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/24/2026 12:28	255667
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Toluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/24/2026 12:28	255667
Surr: 1,2-Dichloroethane-d4	*	80-120		**107.7**	%REC	1	04/24/2026 12:28	255667
Surr: 4-Bromofluorobenzene	*	80-120		**96.8**	%REC	1	04/24/2026 12:28	255667
Surr: Dibromofluoromethane	*	80-120		**97.0**	%REC	1	04/24/2026 12:28	255667
Surr: Toluene-d8	*	80-120		**104.2**	%REC	1	04/24/2026 12:28	255667

Contamination present in the MBLK for multiple analytes. Sample results below the reporting limit are reportable per the TNI Standard.

Allowable Marginal Exceedance of Toluene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	04/22/2026 11:25	R383246
Depth to water	*	-5.00		**26.46**	ft	1	04/22/2026 11:25	R383246
Depth to water from measuring point	*	0		**28.33**	ft	1	04/22/2026 11:25	R383246
Elevation of groundwater surface	*	0		**527.27**	ft	1	04/22/2026 11:25	R383246
Measuring Point Elevation	*	0		**555.60**	ft	1	04/22/2026 11:25	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.6**	°F	1	04/22/2026 11:25	R383246
SW-846 9040B								
pH, Field	*	1.00		**6.82**		1	04/22/2026 11:25	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1400**	µmhos/cm @25C	1	04/22/2026 11:25	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	04/28/2026 16:34	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	1.00		**8.59**	mg/L	10	04/23/2026 15:01	R382764
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	1.00		**7.75**	mg/L	10	04/23/2026 21:35	R382764
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 17:41	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 19:11	R382815
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**1090**	mg/L	1	04/24/2026 14:29	R383030
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 16:47	255472
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:39	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 17:25	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**28.0**	mg/L	10	04/26/2026 9:25	R382935
Sulfate	NELAP	10.0		**311**	mg/L	10	04/26/2026 9:25	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 9:12	R382935
Chloride	NELAP	5.00		**27.9**	mg/L	10	04/26/2026 9:12	R382935
Sulfate	NELAP	10.0		**309**	mg/L	10	04/26/2026 9:12	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	1.0		**5.8**	mg/L	1	04/22/2026 22:06	R382728
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/27/2026 13:59	R382981
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**3730**	µg/L	1	04/24/2026 20:49	255439
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/24/2026 20:49	255439
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/24/2026 20:49	255439

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Magnesium	NELAP	0.050		**79.4**	mg/L	1	04/24/2026 20:49	255439
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/24/2026 20:49	255439
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**< 25.0**	µg/L	1	05/01/2026 10:56	255445
Barium	NELAP	2.5		**457**	µg/L	1	05/01/2026 10:56	255445
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/01/2026 10:56	255445
Boron	NELAP	20.0		**3800**	µg/L	1	05/01/2026 10:56	255445
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/01/2026 10:56	255445
Calcium	NELAP	0.100		**182**	mg/L	1	04/27/2026 19:53	255445
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:56	255445
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:56	255445
Copper	NELAP	5.0		**18.1**	µg/L	1	05/01/2026 10:56	255445
Iron	NELAP	40.0		**20900**	µg/L	1	05/01/2026 10:56	255445
Magnesium	NELAP	0.050		**81.8**	mg/L	1	05/01/2026 10:56	255445
Manganese	NELAP	7.0		**209**	µg/L	1	05/01/2026 10:56	255445
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:56	255445
Potassium	NELAP	0.100		**3.26**	mg/L	1	04/27/2026 19:53	255445
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/01/2026 10:56	255445
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/01/2026 10:56	255445
Sodium	NELAP	0.050	B	**44.6**	mg/L	1	04/27/2026 19:53	255445
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 10:56	255445
Zinc	NELAP	10.0	B	**< 10.0**	µg/L	1	05/01/2026 10:56	255445
Contamination present in the MBLK for Zn. Sample results below the reporting limit are reportable per the TNI Standard.								
Sample result(s) for Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**11.1**	µg/L	5	05/09/2026 3:29	255439
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 21:18	255439
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 14:22	255445
Arsenic	NELAP	1.0		**11.4**	µg/L	5	05/05/2026 14:22	255445
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/08/2026 21:46	255445
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/05/2026 14:22	255445
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:47	255444
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:45	255444
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 19:24	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:49	255656
Alachlor	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:49	255656
Aldrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 11:49	255656
Dieldrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 11:49	255656
Endrin	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:49	255656
gamma-BHC	NELAP	0.05		**ND**	µg/L	1	04/28/2026 11:49	255656
Heptachlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 11:49	255656

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
Heptachlor epoxide	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:49	255656
Methoxychlor	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:49	255656
Toxaphene	NELAP	1.16		**ND**	µg/L	1	04/28/2026 11:49	255656
Chlordane	NELAP	0.06		**ND**	µg/L	1	04/28/2026 11:49	255656
Surr: Decachlorobiphenyl	*	19.9-155		**60.1**	%REC	1	04/28/2026 11:49	255656
Surr: Tetrachloro-m-xylene	*	36.1-128		**71.6**	%REC	1	04/28/2026 11:49	255656
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	04/28/2026 11:33	255656
Surr: Decachlorobiphenyl	*	5-174		**59.5**	%REC	1	04/28/2026 11:33	255656
Surr: Tetrachloro-meta-xylene	*	22.2-139		**86.2**	%REC	1	04/28/2026 11:33	255656
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.40		**ND**	µg/L	1	04/28/2026 0:17	255414
2,4-D	NELAP	0.60		**ND**	µg/L	1	04/28/2026 0:17	255414
Dalapon	NELAP	2.60		**ND**	µg/L	1	04/28/2026 0:17	255414
Dinoseb	NELAP	0.40		**ND**	µg/L	1	04/28/2026 0:17	255414
Pentachlorophenol	NELAP	0.20		**ND**	µg/L	1	04/28/2026 0:17	255414
Picloram	NELAP	1.00		**ND**	µg/L	1	04/28/2026 0:17	255414
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**75.5**	%REC	1	04/28/2026 0:17	255414
Elevated reporting limit due to sample composition.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	04/27/2026 20:28	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 20:28	255504
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/27/2026 20:28	255504
Carbofuran	*	0.60		**ND**	µg/L	1	04/27/2026 20:28	255504
Simazine	*	0.55		**ND**	µg/L	1	04/27/2026 20:28	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**62.9**	%REC	1	04/27/2026 20:28	255504
Surr: 2-Fluorophenol	*	1-135		**45.6**	%REC	1	04/27/2026 20:28	255504
Surr: Nitrobenzene-d5	*	45-133		**67.5**	%REC	1	04/27/2026 20:28	255504
Surr: Phenol-d5	*	1-73.7		**30.6**	%REC	1	04/27/2026 20:28	255504
Surr: p-Terphenyl-d14	*	46.2-128		**69.9**	%REC	1	04/27/2026 20:28	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	04/29/2026 12:36	255726
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	04/29/2026 12:36	255726
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	04/29/2026 12:36	255726
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 12:36	255726
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 12:36	255726
Di-n-butyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 12:36	255726
Isophorone	NELAP	10.0		**ND**	µg/L	1	04/29/2026 12:36	255726
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	04/29/2026 12:36	255726
Parathion	NELAP	5.0		**ND**	µg/L	1	04/29/2026 12:36	255726
Surr: 2,4,6-Tribromophenol	*	29-129		**53.3**	%REC	1	04/29/2026 12:36	255726
Surr: 2-Fluorobiphenyl	*	30.1-112		**42.8**	%REC	1	04/29/2026 12:36	255726
Surr: 2-Fluorophenol	*	18.7-95.3		**36.7**	%REC	1	04/29/2026 12:36	255726
Surr: Nitrobenzene-d5	*	23.6-113		**40.8**	%REC	1	04/29/2026 12:36	255726
Surr: Phenol-d5	*	15.9-72.2		**28.7**	%REC	1	04/29/2026 12:36	255726
Surr: p-Terphenyl-d14	*	17.9-114		**43.1**	%REC	1	04/29/2026 12:36	255726

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		ND	µg/L	1	04/24/2026 9:35	255511
1,2-Dibromoethane	*	0.05		ND	µg/L	1	04/24/2026 9:35	255511
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,1,1-Trichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,1,2,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,1,2-Trichloroethane	NELAP	0.50		ND	µg/L	1	04/24/2026 12:54	255667
1,1-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,1-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,2,3-Trichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,2,3-Trichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,2,4-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,2-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,2-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,3,5-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,3-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,3-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
1,4-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
2,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
2-Butanone	NELAP	5.00		ND	µg/L	1	04/24/2026 12:54	255667
2-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 12:54	255667
2-Hexanone	NELAP	10.0		ND	µg/L	1	04/24/2026 12:54	255667
4-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 12:54	255667
4-Methyl-2-pentanone	NELAP	5.00	B	ND	µg/L	1	04/24/2026 12:54	255667
Acetone	NELAP	5.00		ND	µg/L	1	04/24/2026 12:54	255667
Acrolein	NELAP	5.00		ND	µg/L	1	04/24/2026 12:54	255667
Acrylonitrile	NELAP	5.00		ND	µg/L	1	04/24/2026 12:54	255667
Benzene	NELAP	0.50		ND	µg/L	1	04/24/2026 12:54	255667
Bromobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Bromochloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 12:54	255667
Bromodichloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 12:54	255667
Bromoform	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Bromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Carbon disulfide	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Carbon tetrachloride	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Chlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Chloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Chloroform	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Chloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
cis-1,2-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
cis-1,3-Dichloropropene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Dibromochloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Dibromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Dichlorodifluoromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667
Ethylbenzene	NELAP	1.00		ND	µg/L	1	04/24/2026 12:54	255667
Hexachlorobutadiene	NELAP	2.00		ND	µg/L	1	04/24/2026 12:54	255667

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-007 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Methylene chloride	NELAP	2.00	B	**ND**	µg/L	1	04/24/2026 12:54	255667
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 12:54	255667
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Styrene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 12:54	255667
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/24/2026 12:54	255667
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Toluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/24/2026 12:54	255667
Surr: 1,2-Dichloroethane-d4	*	80-120		**114.7**	%REC	1	04/24/2026 12:54	255667
Surr: 4-Bromofluorobenzene	*	80-120		**93.9**	%REC	1	04/24/2026 12:54	255667
Surr: Dibromofluoromethane	*	80-120		**101.4**	%REC	1	04/24/2026 12:54	255667
Surr: Toluene-d8	*	80-120		**91.5**	%REC	1	04/24/2026 12:54	255667

Contamination present in the MBLK for multiple analytes. Sample results below the reporting limit are reportable per the TNI Standard.

Allowable Marginal Exceedance of Toluene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 12:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	04/22/2026 12:21	R383246
Depth to water	*	-5.00		**28.21**	ft	1	04/22/2026 12:21	R383246
Depth to water from measuring point	*	0		**29.95**	ft	1	04/22/2026 12:21	R383246
Elevation of groundwater surface	*	0		**524.45**	ft	1	04/22/2026 12:21	R383246
Measuring Point Elevation	*	0		**554.40**	ft	1	04/22/2026 12:21	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.9**	°F	1	04/22/2026 12:21	R383246
SW-846 9040B								
pH, Field	*	1.00		**6.85**		1	04/22/2026 12:21	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1580**	µmhos/cm @25C	1	04/22/2026 12:21	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	04/28/2026 16:35	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**3.06**	mg/L	1	04/23/2026 15:09	R382764
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.84**	mg/L	1	04/23/2026 15:06	R382764
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 17:42	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 19:12	R382815
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**1450**	mg/L	1	04/24/2026 14:29	R383030
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 16:49	255472
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:39	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 17:30	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**36.2**	mg/L	10	04/26/2026 9:50	R382935
Sulfate	NELAP	10.0		**513**	mg/L	10	04/26/2026 9:50	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 9:38	R382935
Chloride	NELAP	5.00		**37.7**	mg/L	10	04/26/2026 9:38	R382935
Sulfate	NELAP	10.0		**537**	mg/L	10	04/26/2026 9:38	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	1.0		**4.4**	mg/L	1	04/22/2026 22:12	R382728
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/27/2026 14:29	R382981
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**10500**	µg/L	1	04/24/2026 20:58	255439
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/24/2026 20:58	255439
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/24/2026 20:58	255439

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 12:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Magnesium	NELAP	0.050		**91.4**	mg/L	1	04/24/2026 20:58	255439
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/24/2026 20:58	255439
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**< 25.0**	µg/L	1	05/01/2026 10:58	255445
Barium	NELAP	2.5		**267**	µg/L	1	05/01/2026 10:58	255445
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/01/2026 10:58	255445
Boron	NELAP	20.0		**11200**	µg/L	1	05/01/2026 10:58	255445
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/01/2026 10:58	255445
Calcium	NELAP	0.100		**239**	mg/L	1	04/27/2026 19:54	255445
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:58	255445
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:58	255445
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:58	255445
Iron	NELAP	40.0		**23000**	µg/L	1	05/01/2026 10:58	255445
Magnesium	NELAP	0.050		**94.1**	mg/L	1	05/01/2026 10:58	255445
Manganese	NELAP	7.0		**1130**	µg/L	1	05/01/2026 10:58	255445
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 10:58	255445
Potassium	NELAP	0.100		**2.65**	mg/L	1	04/27/2026 19:54	255445
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/01/2026 10:58	255445
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/01/2026 10:58	255445
Sodium	NELAP	0.050	B	**41.3**	mg/L	1	04/27/2026 19:54	255445
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 10:58	255445
Zinc	NELAP	10.0	B	**< 10.0**	µg/L	1	05/01/2026 10:58	255445
Contamination present in the MBLK for Zn. Sample results below the reporting limit are reportable per the TNI Standard.								
Sample result(s) for Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**1.6**	µg/L	5	05/15/2026 10:55	255439
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 21:23	255439
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 14:24	255445
Arsenic	NELAP	1.0		**1.6**	µg/L	5	05/05/2026 14:24	255445
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/08/2026 21:50	255445
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/05/2026 14:24	255445
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:51	255444
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:49	255444
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 19:39	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:02	255656
Alachlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:02	255656
Aldrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:02	255656
Dieldrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:02	255656
Endrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:02	255656
gamma-BHC	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:02	255656
Heptachlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:02	255656

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 12:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
Heptachlor epoxide	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:02	255656
Methoxychlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:02	255656
Toxaphene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 12:02	255656
Chlordane	NELAP	0.10		**ND**	µg/L	1	04/28/2026 12:02	255656
Surr: Decachlorobiphenyl	*	19.9-155		**54.7**	%REC	1	04/28/2026 12:02	255656
Surr: Tetrachloro-m-xylene	*	36.1-128		**86.4**	%REC	1	04/28/2026 12:02	255656
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	04/28/2026 11:48	255656
Surr: Decachlorobiphenyl	*	5-174		**54.5**	%REC	1	04/28/2026 11:48	255656
Surr: Tetrachloro-meta-xylene	*	22.2-139		**86.0**	%REC	1	04/28/2026 11:48	255656
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.40		**ND**	µg/L	1	04/28/2026 0:42	255414
2,4-D	NELAP	0.60		**ND**	µg/L	1	04/28/2026 0:42	255414
Dalapon	NELAP	2.60		**ND**	µg/L	1	04/28/2026 0:42	255414
Dinoseb	NELAP	0.40		**ND**	µg/L	1	04/28/2026 0:42	255414
Pentachlorophenol	NELAP	0.20		**ND**	µg/L	1	04/28/2026 0:42	255414
Picloram	NELAP	1.00		**ND**	µg/L	1	04/28/2026 0:42	255414
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**67.6**	%REC	1	04/28/2026 0:42	255414
Elevated reporting limit due to sample composition.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	04/27/2026 21:00	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 21:00	255504
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/27/2026 21:00	255504
Carbofuran	*	0.60		**ND**	µg/L	1	04/27/2026 21:00	255504
Simazine	*	0.55		**ND**	µg/L	1	04/27/2026 21:00	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**65.1**	%REC	1	04/27/2026 21:00	255504
Surr: 2-Fluorophenol	*	1-135		**46.0**	%REC	1	04/27/2026 21:00	255504
Surr: Nitrobenzene-d5	*	45-133		**68.3**	%REC	1	04/27/2026 21:00	255504
Surr: Phenol-d5	*	1-73.7		**31.4**	%REC	1	04/27/2026 21:00	255504
Surr: p-Terphenyl-d14	*	46.2-128		**70.0**	%REC	1	04/27/2026 21:00	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	04/29/2026 13:08	255726
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	04/29/2026 13:08	255726
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	04/29/2026 13:08	255726
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 13:08	255726
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 13:08	255726
Di-n-butyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 13:08	255726
Isophorone	NELAP	10.0		**ND**	µg/L	1	04/29/2026 13:08	255726
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	04/29/2026 13:08	255726
Parathion	NELAP	5.0		**ND**	µg/L	1	04/29/2026 13:08	255726
Surr: 2,4,6-Tribromophenol	*	29-129		**50.7**	%REC	1	04/29/2026 13:08	255726
Surr: 2-Fluorobiphenyl	*	30.1-112		**40.2**	%REC	1	04/29/2026 13:08	255726
Surr: 2-Fluorophenol	*	18.7-95.3		**33.3**	%REC	1	04/29/2026 13:08	255726
Surr: Nitrobenzene-d5	*	23.6-113		**38.2**	%REC	1	04/29/2026 13:08	255726
Surr: Phenol-d5	*	15.9-72.2		**26.0**	%REC	1	04/29/2026 13:08	255726
Surr: p-Terphenyl-d14	*	17.9-114		**42.4**	%REC	1	04/29/2026 13:08	255726

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 12:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		ND	µg/L	1	04/24/2026 9:46	255511
1,2-Dibromoethane	*	0.05		ND	µg/L	1	04/24/2026 9:46	255511
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,1,1-Trichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,1,2,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,1,2-Trichloroethane	NELAP	0.50		ND	µg/L	1	04/24/2026 13:20	255667
1,1-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,1-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,2,3-Trichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,2,3-Trichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,2,4-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,2-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,2-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,3,5-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,3-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,3-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
1,4-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
2,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
2-Butanone	NELAP	5.00		ND	µg/L	1	04/24/2026 13:20	255667
2-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 13:20	255667
2-Hexanone	NELAP	10.0		ND	µg/L	1	04/24/2026 13:20	255667
4-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 13:20	255667
4-Methyl-2-pentanone	NELAP	5.00	B	ND	µg/L	1	04/24/2026 13:20	255667
Acetone	NELAP	5.00		ND	µg/L	1	04/24/2026 13:20	255667
Acrolein	NELAP	5.00		ND	µg/L	1	04/24/2026 13:20	255667
Acrylonitrile	NELAP	5.00		ND	µg/L	1	04/24/2026 13:20	255667
Benzene	NELAP	0.50		ND	µg/L	1	04/24/2026 13:20	255667
Bromobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Bromochloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 13:20	255667
Bromodichloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 13:20	255667
Bromoform	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Bromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Carbon disulfide	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Carbon tetrachloride	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Chlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Chloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Chloroform	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Chloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
cis-1,2-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
cis-1,3-Dichloropropene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Dibromochloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Dibromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Dichlorodifluoromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667
Ethylbenzene	NELAP	1.00		ND	µg/L	1	04/24/2026 13:20	255667
Hexachlorobutadiene	NELAP	2.00		ND	µg/L	1	04/24/2026 13:20	255667

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-008 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 12:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Methylene chloride	NELAP	2.00	B	**ND**	µg/L	1	04/24/2026 13:20	255667
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 13:20	255667
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Styrene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 13:20	255667
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/24/2026 13:20	255667
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Toluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/24/2026 13:20	255667
Surr: 1,2-Dichloroethane-d4	*	80-120		**107.8**	%REC	1	04/24/2026 13:20	255667
Surr: 4-Bromofluorobenzene	*	80-120		**95.6**	%REC	1	04/24/2026 13:20	255667
Surr: Dibromofluoromethane	*	80-120		**96.6**	%REC	1	04/24/2026 13:20	255667
Surr: Toluene-d8	*	80-120		**87.5**	%REC	1	04/24/2026 13:20	255667

Contamination present in the MBLK for multiple analytes. Sample results below the reporting limit are reportable per the TNI Standard.

Allowable Marginal Exceedance of Toluene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 10:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	04/23/2026 10:02	R383246
Depth to water	*	-5.00		**12.21**	ft	1	04/23/2026 10:02	R383246
Depth to water from measuring point	*	0		**14.96**	ft	1	04/23/2026 10:02	R383246
Elevation of groundwater surface	*	0		**540.64**	ft	1	04/23/2026 10:02	R383246
Measuring Point Elevation	*	0		**555.60**	ft	1	04/23/2026 10:02	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.6**	°F	1	04/23/2026 10:02	R383246
SW-846 9040B								
pH, Field	*	1.00		**6.72**		1	04/23/2026 10:02	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1290**	µmhos/cm @25C	1	04/23/2026 10:02	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	04/28/2026 16:34	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.61**	mg/L	1	04/24/2026 18:28	R382849
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**< 0.10**	mg/L	1	04/24/2026 18:10	R382849
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**0.139**	mg/L	1	04/23/2026 19:31	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.100		**0.926**	mg/L	2	04/24/2026 17:47	R382876
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**1140**	mg/L	1	04/27/2026 10:20	R383124
Stable weight could not be achieved after multiple cycles of drying, cooling, and weighing. Final weight is reported.								
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 21:22	255476
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:39	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 17:56	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**37.1**	mg/L	10	04/26/2026 10:16	R382935
Sulfate	NELAP	10.0		**395**	mg/L	10	04/26/2026 10:16	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 10:03	R382935
Chloride	NELAP	5.00		**36.9**	mg/L	10	04/26/2026 10:03	R382935
Sulfate	NELAP	10.0		**396**	mg/L	10	04/26/2026 10:03	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	1.0		**3.2**	mg/L	1	04/28/2026 14:48	R383084
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/28/2026 12:21	R383018
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**8670**	µg/L	1	04/27/2026 22:45	255519
Cadmium	NELAP	2.0	B	**< 2.0**	µg/L	1	04/27/2026 22:45	255519

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 10:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/27/2026 22:45	255519
Magnesium	NELAP	0.050		**83.1**	mg/L	1	04/30/2026 12:30	255519
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/27/2026 22:45	255519
Contamination present in the MBLK for Cd. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**< 25.0**	µg/L	1	05/01/2026 12:07	255531
Barium	NELAP	2.5		**115**	µg/L	1	05/01/2026 12:07	255531
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	05/01/2026 12:07	255531
Boron	NELAP	20.0	S	**10300**	µg/L	1	05/01/2026 12:07	255531
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	05/01/2026 12:07	255531
Calcium	NELAP	0.100	S	**184**	mg/L	1	04/27/2026 17:42	255531
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:07	255531
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:07	255531
Copper	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:07	255531
Iron	NELAP	40.0	S	**8140**	µg/L	1	05/01/2026 12:07	255531
Magnesium	NELAP	0.500	S	**118**	mg/L	10	04/30/2026 16:15	255531
Manganese	NELAP	7.0		**156**	µg/L	1	05/01/2026 12:07	255531
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	05/01/2026 12:07	255531
Potassium	NELAP	0.100		**2.27**	mg/L	1	04/27/2026 17:42	255531
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	05/01/2026 12:07	255531
Silver	NELAP	7.0		**< 7.0**	µg/L	1	05/01/2026 12:07	255531
Sodium	NELAP	0.050		**33.2**	mg/L	1	04/27/2026 17:42	255531
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 12:07	255531
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	05/01/2026 12:07	255531
Matrix spike control limits for B and Fe are not applicable due to high sample/spike ratio.								
Matrix spike control limits for Ca and Mg are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**143**	µg/L	5	05/12/2026 19:01	255519
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 0:21	255519
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/13/2026 17:34	255531
Arsenic	NELAP	1.0		**18.7**	µg/L	5	05/13/2026 17:34	255531
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/04/2026 23:01	255531
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/14/2026 23:31	255531
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/27/2026 16:17	255547
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/27/2026 16:15	255547
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 19:54	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:16	255656
Alachlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:16	255656
Aldrin	NELAP	0.04		**ND**	µg/L	1	04/28/2026 12:16	255656
Dieldrin	NELAP	0.04		**ND**	µg/L	1	04/28/2026 12:16	255656
Endrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:16	255656

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 10:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
gamma-BHC	NELAP	0.04		**ND**	µg/L	1	04/28/2026 12:16	255656
Heptachlor	NELAP	0.04		**ND**	µg/L	1	04/28/2026 12:16	255656
Heptachlor epoxide	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:16	255656
Methoxychlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:16	255656
Toxaphene	NELAP	1.02		**ND**	µg/L	1	04/28/2026 12:16	255656
Chlordane	NELAP	0.05		**ND**	µg/L	1	04/28/2026 12:16	255656
Surr: Decachlorobiphenyl	*	19.9-155		**60.3**	%REC	1	04/28/2026 12:16	255656
Surr: Tetrachloro-m-xylene	*	36.1-128		**69.1**	%REC	1	04/28/2026 12:16	255656
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	04/28/2026 12:04	255656
Surr: Decachlorobiphenyl	*	5-174		**56.2**	%REC	1	04/28/2026 12:04	255656
Surr: Tetrachloro-meta-xylene	*	22.2-139		**80.1**	%REC	1	04/28/2026 12:04	255656
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.40		**ND**	µg/L	1	04/28/2026 8:31	255594
2,4-D	NELAP	0.60		**ND**	µg/L	1	04/28/2026 8:31	255594
Dalapon	NELAP	2.60		**ND**	µg/L	1	04/28/2026 8:31	255594
Dinoseb	NELAP	0.40		**ND**	µg/L	1	04/28/2026 8:31	255594
Pentachlorophenol	NELAP	0.20		**ND**	µg/L	1	04/28/2026 8:31	255594
Picloram	NELAP	1.00		**ND**	µg/L	1	04/28/2026 8:31	255594
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**75.9**	%REC	1	04/28/2026 8:31	255594
Elevated reporting limit due to sample composition.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	04/27/2026 21:33	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 21:33	255504
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/27/2026 21:33	255504
Carbofuran	*	0.60		**ND**	µg/L	1	04/27/2026 21:33	255504
Simazine	*	0.55		**ND**	µg/L	1	04/27/2026 21:33	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**72.2**	%REC	1	04/27/2026 21:33	255504
Surr: 2-Fluorophenol	*	1-135		**51.0**	%REC	1	04/27/2026 21:33	255504
Surr: Nitrobenzene-d5	*	45-133		**75.8**	%REC	1	04/27/2026 21:33	255504
Surr: Phenol-d5	*	1-73.7		**35.2**	%REC	1	04/27/2026 21:33	255504
Surr: p-Terphenyl-d14	*	46.2-128		**80.1**	%REC	1	04/27/2026 21:33	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	04/29/2026 13:41	255726
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	04/29/2026 13:41	255726
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	04/29/2026 13:41	255726
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 13:41	255726
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 13:41	255726
Di-n-butyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 13:41	255726
Isophorone	NELAP	10.0		**ND**	µg/L	1	04/29/2026 13:41	255726
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	04/29/2026 13:41	255726
Parathion	NELAP	5.0		**ND**	µg/L	1	04/29/2026 13:41	255726
Surr: 2,4,6-Tribromophenol	*	29-129		**50.2**	%REC	1	04/29/2026 13:41	255726
Surr: 2-Fluorobiphenyl	*	30.1-112		**35.5**	%REC	1	04/29/2026 13:41	255726
Surr: 2-Fluorophenol	*	18.7-95.3		**30.8**	%REC	1	04/29/2026 13:41	255726
Surr: Nitrobenzene-d5	*	23.6-113		**34.1**	%REC	1	04/29/2026 13:41	255726

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 10:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Surr: Phenol-d5	*	15.9-72.2		**24.0**	%REC	1	04/29/2026 13:41	255726
Surr: p-Terphenyl-d14	*	17.9-114		**43.6**	%REC	1	04/29/2026 13:41	255726
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		**ND**	µg/L	1	04/24/2026 16:29	255587
1,2-Dibromoethane	*	0.05		**ND**	µg/L	1	04/24/2026 16:29	255587
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,1,1-Trichloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,1,2,2-Tetrachloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,1,2-Trichloroethane	NELAP	0.50		**ND**	µg/L	1	04/28/2026 14:19	255771
1,1-Dichloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,1-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,2,3-Trichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,2,3-Trichloropropane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,2,4-Trimethylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,2-Dichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,2-Dichloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,2-Dichloropropane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,3,5-Trimethylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,3-Dichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,3-Dichloropropane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,4-Dichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
2,2-Dichloropropane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
2-Butanone	NELAP	5.00		**ND**	µg/L	1	04/28/2026 14:19	255771
2-Chlorotoluene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 14:19	255771
2-Hexanone	NELAP	10.0		**ND**	µg/L	1	04/28/2026 14:19	255771
4-Chlorotoluene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 14:19	255771
4-Methyl-2-pentanone	NELAP	5.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Acetone	NELAP	5.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Acrolein	NELAP	5.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Acrylonitrile	NELAP	5.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Benzene	NELAP	0.50		**ND**	µg/L	1	04/28/2026 14:19	255771
Bromobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Bromochloromethane	NELAP	1.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Bromodichloromethane	NELAP	1.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Bromoform	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Bromomethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Carbon disulfide	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Carbon tetrachloride	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Chlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Chloroethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Chloroform	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Chloromethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
cis-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
cis-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Dibromochloromethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Dibromomethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-009 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 04/23/2026 10:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dichlorodifluoromethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Ethylbenzene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Hexachlorobutadiene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Methylene chloride	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 14:19	255771
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Styrene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 14:19	255771
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/28/2026 14:19	255771
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Toluene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/28/2026 14:19	255771
Surr: 1,2-Dichloroethane-d4	*	80-120	S	**122.6**	%REC	1	04/28/2026 14:19	255771
Surr: 4-Bromofluorobenzene	*	80-120		**110.1**	%REC	1	04/28/2026 14:19	255771
Surr: Dibromofluoromethane	*	80-120		**104.0**	%REC	1	04/28/2026 14:19	255771
Surr: Toluene-d8	*	80-120		**105.3**	%REC	1	04/28/2026 14:19	255771

Surrogate recovery is outside control limits due to matrix interference.

Allowable Marginal Exceedance of 1,1,2,2-Tetrachloroethane and trans-1,4-Dichloro-2-butene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-010 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 10:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	04/22/2026 10:19	R383246
Depth to water	*	-5.00		**1.14**	ft	1	04/22/2026 10:19	R383246
Depth to water from measuring point	*	0		**4.44**	ft	1	04/22/2026 10:19	R383246
Elevation of groundwater surface	*	0		**525.54**	ft	1	04/22/2026 10:19	R383246
Measuring Point Elevation	*	0		**529.98**	ft	1	04/22/2026 10:19	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.3**	°F	1	04/22/2026 10:19	R383246
SW-846 9040B								
pH, Field	*	1.00		**6.61**		1	04/22/2026 10:19	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**821**	µmhos/cm @25C	1	04/22/2026 10:19	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	04/28/2026 16:34	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**3.97**	mg/L	1	04/23/2026 15:36	R382764
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.20		**4.19**	mg/L	2	04/24/2026 18:33	R382849
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 17:43	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 19:13	R382815
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**782**	mg/L	1	04/24/2026 14:34	R383030
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 16:54	255472
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:40	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 18:00	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**24.8**	mg/L	10	04/26/2026 11:19	R382935
Sulfate	NELAP	10.0		**135**	mg/L	10	04/26/2026 11:19	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 11:06	R382935
Chloride	NELAP	5.00		**18.8**	mg/L	10	04/26/2026 11:06	R382935
Sulfate	NELAP	10.0		**43.9**	mg/L	10	04/26/2026 11:06	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	1.0		**4.5**	mg/L	1	04/22/2026 22:18	R382728
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/27/2026 14:16	R382981
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**2480**	µg/L	1	04/24/2026 21:00	255439
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/24/2026 21:00	255439
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/24/2026 21:00	255439

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-010 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 10:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Magnesium	NELAP	0.050		**58.1**	mg/L	1	04/24/2026 21:00	255439
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/24/2026 21:00	255439
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**< 25.0**	µg/L	1	04/27/2026 20:04	255445
Barium	NELAP	2.5		**275**	µg/L	1	04/27/2026 20:04	255445
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/27/2026 20:04	255445
Boron	NELAP	20.0		**1270**	µg/L	1	04/27/2026 20:04	255445
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/27/2026 20:04	255445
Calcium	NELAP	0.100		**107**	mg/L	1	04/27/2026 20:04	255445
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:04	255445
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:04	255445
Copper	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:04	255445
Iron	NELAP	40.0		**4060**	µg/L	1	04/27/2026 20:04	255445
Magnesium	NELAP	0.050		**46.5**	mg/L	1	05/01/2026 11:00	255445
Manganese	NELAP	7.0		**176**	µg/L	1	04/27/2026 20:04	255445
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:04	255445
Potassium	NELAP	0.100		**1.71**	mg/L	1	04/27/2026 20:04	255445
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	04/27/2026 20:04	255445
Silver	NELAP	7.0		**< 7.0**	µg/L	1	04/27/2026 20:04	255445
Sodium	NELAP	0.050	B	**28.4**	mg/L	1	04/27/2026 20:04	255445
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	04/27/2026 20:04	255445
Zinc	NELAP	10.0	B	**< 10.0**	µg/L	1	04/27/2026 20:04	255445
Contamination present in the MBLK for Zn. Sample results below the reporting limit are reportable per the TNI Standard.								
Sample result(s) for Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**7.0**	µg/L	5	05/09/2026 3:39	255439
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 21:27	255439
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 14:27	255445
Arsenic	NELAP	1.0		**2.1**	µg/L	5	05/05/2026 14:27	255445
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/08/2026 21:53	255445
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/05/2026 14:27	255445
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 17:00	255444
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 16:58	255444
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 20:09	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:10	255656
Alachlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:10	255656
Aldrin	NELAP	0.04		**ND**	µg/L	1	04/28/2026 13:10	255656
Dieldrin	NELAP	0.04		**ND**	µg/L	1	04/28/2026 13:10	255656
Endrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:10	255656
gamma-BHC	NELAP	0.04		**ND**	µg/L	1	04/28/2026 13:10	255656
Heptachlor	NELAP	0.04		**ND**	µg/L	1	04/28/2026 13:10	255656

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-010 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 10:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
Heptachlor epoxide	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:10	255656
Methoxychlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:10	255656
Toxaphene	NELAP	1.02		**ND**	µg/L	1	04/28/2026 13:10	255656
Chlordane	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:10	255656
Surr: Decachlorobiphenyl	*	19.9-155		**67.0**	%REC	1	04/28/2026 13:10	255656
Surr: Tetrachloro-m-xylene	*	36.1-128		**63.1**	%REC	1	04/28/2026 13:10	255656
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	04/28/2026 12:19	255656
Surr: Decachlorobiphenyl	*	5-174		**61.6**	%REC	1	04/28/2026 12:19	255656
Surr: Tetrachloro-meta-xylene	*	22.2-139		**74.0**	%REC	1	04/28/2026 12:19	255656
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.40		**ND**	µg/L	1	04/28/2026 1:07	255414
2,4-D	NELAP	0.60		**ND**	µg/L	1	04/28/2026 1:07	255414
Dalapon	NELAP	2.60		**ND**	µg/L	1	04/28/2026 1:07	255414
Dinoseb	NELAP	0.40		**ND**	µg/L	1	04/28/2026 1:07	255414
Pentachlorophenol	NELAP	0.20		**ND**	µg/L	1	04/28/2026 1:07	255414
Picloram	NELAP	1.00		**ND**	µg/L	1	04/28/2026 1:07	255414
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**75.8**	%REC	1	04/28/2026 1:07	255414
Elevated reporting limit due to sample composition.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	04/27/2026 22:06	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 22:06	255504
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/27/2026 22:06	255504
Carbofuran	*	0.60		**ND**	µg/L	1	04/27/2026 22:06	255504
Simazine	*	0.55		**ND**	µg/L	1	04/27/2026 22:06	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**61.6**	%REC	1	04/27/2026 22:06	255504
Surr: 2-Fluorophenol	*	1-135		**45.2**	%REC	1	04/27/2026 22:06	255504
Surr: Nitrobenzene-d5	*	45-133		**66.8**	%REC	1	04/27/2026 22:06	255504
Surr: Phenol-d5	*	1-73.7		**30.3**	%REC	1	04/27/2026 22:06	255504
Surr: p-Terphenyl-d14	*	46.2-128		**73.2**	%REC	1	04/27/2026 22:06	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	04/29/2026 14:13	255726
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	04/29/2026 14:13	255726
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	04/29/2026 14:13	255726
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 14:13	255726
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 14:13	255726
Di-n-butyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 14:13	255726
Isophorone	NELAP	10.0		**ND**	µg/L	1	04/29/2026 14:13	255726
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	04/29/2026 14:13	255726
Parathion	NELAP	5.0		**ND**	µg/L	1	04/29/2026 14:13	255726
Surr: 2,4,6-Tribromophenol	*	29-129		**50.5**	%REC	1	04/29/2026 14:13	255726
Surr: 2-Fluorobiphenyl	*	30.1-112		**39.3**	%REC	1	04/29/2026 14:13	255726
Surr: 2-Fluorophenol	*	18.7-95.3		**32.8**	%REC	1	04/29/2026 14:13	255726
Surr: Nitrobenzene-d5	*	23.6-113		**35.9**	%REC	1	04/29/2026 14:13	255726
Surr: Phenol-d5	*	15.9-72.2		**26.0**	%REC	1	04/29/2026 14:13	255726
Surr: p-Terphenyl-d14	*	17.9-114		**41.7**	%REC	1	04/29/2026 14:13	255726

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-010 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 10:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		ND	µg/L	1	04/24/2026 9:57	255511
1,2-Dibromoethane	*	0.05		ND	µg/L	1	04/24/2026 9:57	255511
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,1,1-Trichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,1,2,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,1,2-Trichloroethane	NELAP	0.50		ND	µg/L	1	04/24/2026 14:11	255667
1,1-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,1-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,2,3-Trichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,2,3-Trichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,2,4-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,2-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,2-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,3,5-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,3-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,3-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
1,4-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
2,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
2-Butanone	NELAP	5.00		ND	µg/L	1	04/24/2026 14:11	255667
2-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 14:11	255667
2-Hexanone	NELAP	10.0		ND	µg/L	1	04/24/2026 14:11	255667
4-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 14:11	255667
4-Methyl-2-pentanone	NELAP	5.00	B	ND	µg/L	1	04/24/2026 14:11	255667
Acetone	NELAP	5.00		ND	µg/L	1	04/24/2026 14:11	255667
Acrolein	NELAP	5.00		ND	µg/L	1	04/24/2026 14:11	255667
Acrylonitrile	NELAP	5.00		ND	µg/L	1	04/24/2026 14:11	255667
Benzene	NELAP	0.50		ND	µg/L	1	04/24/2026 14:11	255667
Bromobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Bromochloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 14:11	255667
Bromodichloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 14:11	255667
Bromoform	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Bromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Carbon disulfide	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Carbon tetrachloride	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Chlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Chloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Chloroform	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Chloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
cis-1,2-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
cis-1,3-Dichloropropene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Dibromochloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Dibromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Dichlorodifluoromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667
Ethylbenzene	NELAP	1.00		ND	µg/L	1	04/24/2026 14:11	255667
Hexachlorobutadiene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:11	255667

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-010 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 10:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Methylene chloride	NELAP	2.00	B	**ND**	µg/L	1	04/24/2026 14:11	255667
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 14:11	255667
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Styrene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 14:11	255667
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/24/2026 14:11	255667
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Toluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/24/2026 14:11	255667
Surr: 1,2-Dichloroethane-d4	*	80-120		**111.0**	%REC	1	04/24/2026 14:11	255667
Surr: 4-Bromofluorobenzene	*	80-120		**95.4**	%REC	1	04/24/2026 14:11	255667
Surr: Dibromofluoromethane	*	80-120		**101.1**	%REC	1	04/24/2026 14:11	255667
Surr: Toluene-d8	*	80-120		**89.6**	%REC	1	04/24/2026 14:11	255667

Contamination present in the MBLK for multiple analytes. Sample results below the reporting limit are reportable per the TNI Standard.

Allowable Marginal Exceedance of Toluene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-011 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	04/22/2026 11:07	R383246
Depth to water	*	-5.00		**7.28**	ft	1	04/22/2026 11:07	R383246
Depth to water from measuring point	*	0		**9.98**	ft	1	04/22/2026 11:07	R383246
Elevation of groundwater surface	*	0		**529.52**	ft	1	04/22/2026 11:07	R383246
Measuring Point Elevation	*	0		**539.50**	ft	1	04/22/2026 11:07	R383246
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.9**	°F	1	04/22/2026 11:07	R383246
SW-846 9040B								
pH, Field	*	1.00		**6.97**		1	04/22/2026 11:07	R383246
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**650**	µmhos/cm @25C	1	04/22/2026 11:07	R383246
EPA 1664B								
Hexane Extractable Material	NELAP	5		**< 5**	mg/L	1	04/28/2026 16:34	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.20**	mg/L	1	04/23/2026 15:41	R382764
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.21**	mg/L	1	04/23/2026 15:38	R382764
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**0.302**	mg/L	1	04/23/2026 17:55	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**0.494**	mg/L	1	04/23/2026 19:15	R382815
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**450**	mg/L	1	04/24/2026 14:34	R383030
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 16:59	255472
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:40	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 18:04	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**26.7**	mg/L	10	04/26/2026 11:44	R382935
Sulfate	NELAP	10.0		**ND**	mg/L	10	04/26/2026 11:44	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 11:32	R382935
Chloride	NELAP	5.00		**26.7**	mg/L	10	04/26/2026 11:32	R382935
Sulfate	NELAP	10.0		**ND**	mg/L	10	04/26/2026 11:32	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	1.0		**3.9**	mg/L	1	04/22/2026 22:24	R382728
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/27/2026 14:13	R382981
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**168**	µg/L	1	04/24/2026 21:01	255439
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/24/2026 21:01	255439
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/24/2026 21:01	255439

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-011 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Magnesium	NELAP	0.050		**27.7**	mg/L	1	04/24/2026 21:01	255439
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/24/2026 21:01	255439
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**< 25.0**	µg/L	1	04/27/2026 20:05	255445
Barium	NELAP	2.5		**158**	µg/L	1	04/27/2026 20:05	255445
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/27/2026 20:05	255445
Boron	NELAP	20.0		**163**	µg/L	1	04/27/2026 20:05	255445
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/27/2026 20:05	255445
Calcium	NELAP	0.100		**67.5**	mg/L	1	04/27/2026 20:05	255445
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:05	255445
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:05	255445
Copper	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:05	255445
Iron	NELAP	40.0		**4030**	µg/L	1	04/27/2026 20:05	255445
Magnesium	NELAP	0.050		**28.8**	mg/L	1	05/01/2026 11:01	255445
Manganese	NELAP	7.0		**93.3**	µg/L	1	04/27/2026 20:05	255445
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:05	255445
Potassium	NELAP	0.100		**1.84**	mg/L	1	04/27/2026 20:05	255445
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	04/27/2026 20:05	255445
Silver	NELAP	7.0		**< 7.0**	µg/L	1	04/27/2026 20:05	255445
Sodium	NELAP	0.050	B	**56.1**	mg/L	1	04/27/2026 20:05	255445
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	04/27/2026 20:05	255445
Zinc	NELAP	10.0	B	**< 10.0**	µg/L	1	04/27/2026 20:05	255445
Contamination present in the MBLK for Zn. Sample results below the reporting limit are reportable per the TNI Standard.								
Sample result(s) for Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**80.9**	µg/L	5	05/15/2026 11:00	255439
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 21:31	255439
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 14:29	255445
Arsenic	NELAP	1.0		**76.3**	µg/L	5	05/05/2026 14:29	255445
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/08/2026 21:57	255445
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/05/2026 14:29	255445
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 17:08	255444
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 17:06	255444
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 20:24	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:23	255656
Alachlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:23	255656
Aldrin	NELAP	0.04		**ND**	µg/L	1	04/28/2026 13:23	255656
Dieldrin	NELAP	0.04		**ND**	µg/L	1	04/28/2026 13:23	255656
Endrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:23	255656
gamma-BHC	NELAP	0.04		**ND**	µg/L	1	04/28/2026 13:23	255656
Heptachlor	NELAP	0.04		**ND**	µg/L	1	04/28/2026 13:23	255656

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-011 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
Heptachlor epoxide	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:23	255656
Methoxychlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:23	255656
Toxaphene	NELAP	1.02		**ND**	µg/L	1	04/28/2026 13:23	255656
Chlordane	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:23	255656
Surr: Decachlorobiphenyl	*	19.9-155		**83.1**	%REC	1	04/28/2026 13:23	255656
Surr: Tetrachloro-m-xylene	*	36.1-128		**60.6**	%REC	1	04/28/2026 13:23	255656
Elevated reporting limits due to limited sample.								
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	04/28/2026 15:25	255656
Surr: Decachlorobiphenyl	*	5-174		**80.1**	%REC	1	04/28/2026 15:25	255656
Surr: Tetrachloro-meta-xylene	*	22.2-139		**76.8**	%REC	1	04/28/2026 15:25	255656
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.19		**ND**	µg/L	1	04/28/2026 6:28	255496
2,4-D	NELAP	0.28		**ND**	µg/L	1	04/28/2026 6:28	255496
Dalapon	NELAP	1.23		**ND**	µg/L	1	04/28/2026 6:28	255496
Dinoseb	NELAP	0.19		**ND**	µg/L	1	04/28/2026 6:28	255496
Pentachlorophenol	NELAP	0.09		**ND**	µg/L	1	04/28/2026 6:28	255496
Picloram	NELAP	0.47		**ND**	µg/L	1	04/28/2026 6:28	255496
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**85.9**	%REC	1	04/28/2026 6:28	255496
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	04/27/2026 22:38	255504
Atrazine	*	0.08		**ND**	µg/L	1	04/27/2026 22:38	255504
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/27/2026 22:38	255504
Carbofuran	*	0.60		**ND**	µg/L	1	04/27/2026 22:38	255504
Simazine	*	0.55		**ND**	µg/L	1	04/27/2026 22:38	255504
Surr: 2-Fluorobiphenyl	*	39.3-126		**65.2**	%REC	1	04/27/2026 22:38	255504
Surr: 2-Fluorophenol	*	1-135		**47.1**	%REC	1	04/27/2026 22:38	255504
Surr: Nitrobenzene-d5	*	45-133		**68.7**	%REC	1	04/27/2026 22:38	255504
Surr: Phenol-d5	*	1-73.7		**31.8**	%REC	1	04/27/2026 22:38	255504
Surr: p-Terphenyl-d14	*	46.2-128		**77.6**	%REC	1	04/27/2026 22:38	255504
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	04/29/2026 14:45	255726
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	04/29/2026 14:45	255726
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	04/29/2026 14:45	255726
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 14:45	255726
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 14:45	255726
Di-n-butyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 14:45	255726
Isophorone	NELAP	10.0		**ND**	µg/L	1	04/29/2026 14:45	255726
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	04/29/2026 14:45	255726
Parathion	NELAP	5.0		**ND**	µg/L	1	04/29/2026 14:45	255726
Surr: 2,4,6-Tribromophenol	*	29-129		**51.9**	%REC	1	04/29/2026 14:45	255726
Surr: 2-Fluorobiphenyl	*	30.1-112		**41.4**	%REC	1	04/29/2026 14:45	255726
Surr: 2-Fluorophenol	*	18.7-95.3		**33.8**	%REC	1	04/29/2026 14:45	255726
Surr: Nitrobenzene-d5	*	23.6-113		**37.0**	%REC	1	04/29/2026 14:45	255726
Surr: Phenol-d5	*	15.9-72.2		**27.3**	%REC	1	04/29/2026 14:45	255726
Surr: p-Terphenyl-d14	*	17.9-114		**41.6**	%REC	1	04/29/2026 14:45	255726

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-011 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		ND	µg/L	1	04/24/2026 10:08	255511
1,2-Dibromoethane	*	0.05		ND	µg/L	1	04/24/2026 10:08	255511
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,1,1-Trichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,1,2,2-Tetrachloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,1,2-Trichloroethane	NELAP	0.50		ND	µg/L	1	04/24/2026 14:37	255667
1,1-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,1-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,2,3-Trichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,2,3-Trichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,2,4-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,2-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,2-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,3,5-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,3-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,3-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
1,4-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
2,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
2-Butanone	NELAP	5.00		ND	µg/L	1	04/24/2026 14:37	255667
2-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 14:37	255667
2-Hexanone	NELAP	10.0		ND	µg/L	1	04/24/2026 14:37	255667
4-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/24/2026 14:37	255667
4-Methyl-2-pentanone	NELAP	5.00	B	ND	µg/L	1	04/24/2026 14:37	255667
Acetone	NELAP	5.00		ND	µg/L	1	04/24/2026 14:37	255667
Acrolein	NELAP	5.00		ND	µg/L	1	04/24/2026 14:37	255667
Acrylonitrile	NELAP	5.00		ND	µg/L	1	04/24/2026 14:37	255667
Benzene	NELAP	0.50		ND	µg/L	1	04/24/2026 14:37	255667
Bromobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Bromochloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 14:37	255667
Bromodichloromethane	NELAP	1.00		ND	µg/L	1	04/24/2026 14:37	255667
Bromoform	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Bromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Carbon disulfide	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Carbon tetrachloride	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Chlorobenzene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Chloroethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Chloroform	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Chloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
cis-1,2-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
cis-1,3-Dichloropropene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Dibromochloromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Dibromomethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Dichlorodifluoromethane	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667
Ethylbenzene	NELAP	1.00		ND	µg/L	1	04/24/2026 14:37	255667
Hexachlorobutadiene	NELAP	2.00		ND	µg/L	1	04/24/2026 14:37	255667

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-011 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Iodomethane	NELAP	3.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Isopropylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
m,p-Xylenes	NELAP	1.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Methylene chloride	NELAP	2.00	B	**ND**	µg/L	1	04/24/2026 14:37	255667
Naphthalene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
n-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
n-Propylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
o-Xylene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 14:37	255667
p-Isopropyltoluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
sec-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Styrene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 14:37	255667
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/24/2026 14:37	255667
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Toluene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/24/2026 14:37	255667
Surr: 1,2-Dichloroethane-d4	*	80-120		**110.2**	%REC	1	04/24/2026 14:37	255667
Surr: 4-Bromofluorobenzene	*	80-120		**92.0**	%REC	1	04/24/2026 14:37	255667
Surr: Dibromofluoromethane	*	80-120		**97.7**	%REC	1	04/24/2026 14:37	255667
Surr: Toluene-d8	*	80-120		**86.9**	%REC	1	04/24/2026 14:37	255667

Contamination present in the MBLK for multiple analytes. Sample results below the reporting limit are reportable per the TNI Standard.

Allowable Marginal Exceedance of Toluene in the laboratory control sample is verified per the TNI Standard.

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-012 **Client Sample ID:** DUPLICATE

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 1664B								
Hexane Extractable Material	NELAP	6		**< 6**	mg/L	1	04/28/2026 16:34	R383034
EPA 600 350.1 R2.0 (1993) (DISSOLVED)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**3.30**	mg/L	1	04/23/2026 15:48	R382764
EPA 600 350.1 R2.0 (1993) (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**3.29**	mg/L	1	04/23/2026 15:46	R382764
EPA 600 353.2 R2.0 (1993) (DISSOLVED)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 17:59	R382815
EPA 600 353.2 R2.0 (1993) (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050		**< 0.050**	mg/L	1	04/23/2026 19:27	R382815
STANDARD METHODS 2540 C (DISSOLVED) 2020								
Total Dissolved Solids	NELAP	20		**848**	mg/L	1	04/24/2026 14:34	R383030
Stable weight could not be achieved after multiple cycles of drying, cooling, and weighing. Final weight is reported.								
STANDARD METHODS 5210 B 2016								
Biochemical Oxygen Demand	NELAP	10		**< 10**	mg/L	1	04/23/2026 17:03	255472
STANDARD METHODS 5220 D (TOTAL) 2011								
Chemical Oxygen Demand	NELAP	50		**< 50**	mg/L	1	04/29/2026 22:40	R383133
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.005		**< 0.005**	mg/L	1	04/24/2026 18:09	255527
SW846 9056A DISSOLVED ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Chloride	NELAP	5.00		**198**	mg/L	10	04/26/2026 12:10	R382935
Sulfate	NELAP	10.0		**31.4**	mg/L	10	04/26/2026 12:10	R382935
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	04/26/2026 11:57	R382935
Chloride	NELAP	5.00		**194**	mg/L	10	04/26/2026 11:57	R382935
Sulfate	NELAP	10.0		**29.4**	mg/L	10	04/26/2026 11:57	R382935
SW-846 9060A								
Total Organic Carbon (TOC)	NELAP	2.0		**3.0**	mg/L	2	04/22/2026 23:24	R382728
SW-846 9066 (TOTAL)								
Phenols	NELAP	5		**< 5**	µg/L	1	04/27/2026 14:24	R382981
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Boron	NELAP	20.0		**3980**	µg/L	1	04/24/2026 21:03	255439
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/24/2026 21:03	255439
Chromium	NELAP	4.0		**< 4.0**	µg/L	1	04/24/2026 21:03	255439
Magnesium	NELAP	0.050		**70.6**	mg/L	1	04/24/2026 21:03	255439
Zinc	NELAP	10.0		**< 10.0**	µg/L	1	04/24/2026 21:03	255439
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Aluminum	NELAP	25.0		**63.3**	µg/L	1	04/27/2026 20:07	255445
Barium	NELAP	2.5		**683**	µg/L	1	04/27/2026 20:07	255445
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	04/27/2026 20:07	255445
Boron	NELAP	20.0		**3880**	µg/L	1	04/27/2026 20:07	255445
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	04/27/2026 20:07	255445
Calcium	NELAP	0.100	S	**163**	mg/L	1	04/27/2026 20:07	255445
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:07	255445
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:07	255445
Copper	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:07	255445

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-012 **Client Sample ID:** DUPLICATE

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Iron	NELAP	40.0		**11400**	µg/L	1	04/27/2026 20:07	255445
Magnesium	NELAP	0.050		**71.7**	mg/L	1	05/01/2026 11:14	255445
Manganese	NELAP	7.0		**119**	µg/L	1	04/27/2026 20:07	255445
Nickel	NELAP	5.0		**< 5.0**	µg/L	1	04/27/2026 20:07	255445
Potassium	NELAP	0.100		**2.04**	mg/L	1	04/27/2026 20:07	255445
Selenium	NELAP	40.0		**< 40.0**	µg/L	1	04/27/2026 20:07	255445
Silver	NELAP	7.0		**< 7.0**	µg/L	1	04/27/2026 20:07	255445
Sodium	NELAP	0.050	B	**36.2**	mg/L	1	04/27/2026 20:07	255445
Vanadium	NELAP	10.0		**< 10.0**	µg/L	1	04/27/2026 20:07	255445
Zinc	NELAP	10.0	B	**< 10.0**	µg/L	1	04/27/2026 20:07	255445
Contamination present in the MBLK for Zn. Sample results below the reporting limit are reportable per the TNI Standard.								
Sample result(s) for Na exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)								
Arsenic	NELAP	1.0		**16.9**	µg/L	5	05/15/2026 11:28	255439
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 21:35	255439
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	05/05/2026 14:32	255445
Arsenic	NELAP	1.0		**14.6**	µg/L	5	05/05/2026 14:32	255445
Lead	NELAP	1.0		**< 1.0**	µg/L	5	05/08/2026 22:01	255445
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	05/08/2026 22:01	255445
SW-846 7470A (DISSOLVED)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 17:13	255444
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	04/23/2026 17:10	255444
EPA 600 548.1, ENDOTHALL BY GC/MS								
Endothall	*	10		**ND**	µg/L	1	04/26/2026 20:38	255565
SW-846 3510C, 8081B, CHLORINATED PESTICIDES BY GC/ECD								
4,4´-DDT	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:37	255656
Alachlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:37	255656
Aldrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:37	255656
Dieldrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:37	255656
Endrin	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:37	255656
gamma-BHC	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:37	255656
Heptachlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:37	255656
Heptachlor epoxide	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:37	255656
Methoxychlor	NELAP	0.05		**ND**	µg/L	1	04/28/2026 13:37	255656
Toxaphene	NELAP	1.00		**ND**	µg/L	1	04/28/2026 13:37	255656
Chlordane	NELAP	0.10		**ND**	µg/L	1	04/28/2026 13:37	255656
Surr: Decachlorobiphenyl	*	19.9-155		**57.0**	%REC	1	04/28/2026 13:37	255656
Surr: Tetrachloro-m-xylene	*	36.1-128		**66.0**	%REC	1	04/28/2026 13:37	255656
SW-846 3510C, 8082A, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Polychlorinated Biphenyls (Total)	NELAP	0.500		**ND**	µg/L	1	04/28/2026 15:40	255656
Surr: Decachlorobiphenyl	*	5-174		**52.1**	%REC	1	04/28/2026 15:40	255656
Surr: Tetrachloro-meta-xylene	*	22.2-139		**78.7**	%REC	1	04/28/2026 15:40	255656

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-012 **Client Sample ID:** DUPLICATE

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.40		**ND**	µg/L	1	04/28/2026 6:53	255496
2,4-D	NELAP	0.60		**ND**	µg/L	1	04/28/2026 6:53	255496
Dalapon	NELAP	2.60		**ND**	µg/L	1	04/28/2026 6:53	255496
Dinoseb	NELAP	0.40		**ND**	µg/L	1	04/28/2026 6:53	255496
Pentachlorophenol	NELAP	0.20		**ND**	µg/L	1	04/28/2026 6:53	255496
Picloram	NELAP	1.00		**ND**	µg/L	1	04/28/2026 6:53	255496
Surr: 2,4-Dichlorophenylacetic acid	*	1-189		**87.7**	%REC	1	04/28/2026 6:53	255496
Elevated reporting limit due to sample composition.								
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Aldicarb	*	1.00		**ND**	µg/L	1	04/28/2026 21:31	255609
Atrazine	*	0.08		**ND**	µg/L	1	04/28/2026 21:31	255609
Benzo(a)pyrene	*	0.20		**ND**	µg/L	1	04/28/2026 21:31	255609
Carbofuran	*	0.60		**ND**	µg/L	1	04/28/2026 21:31	255609
Simazine	*	0.55		**ND**	µg/L	1	04/28/2026 21:31	255609
Surr: 2-Fluorobiphenyl	*	39.3-126		**56.5**	%REC	1	04/28/2026 21:31	255609
Surr: 2-Fluorophenol	*	1-135		**43.7**	%REC	1	04/28/2026 21:31	255609
Surr: Nitrobenzene-d5	*	45-133		**59.9**	%REC	1	04/28/2026 21:31	255609
Surr: Phenol-d5	*	1-73.7		**32.0**	%REC	1	04/28/2026 21:31	255609
Surr: p-Terphenyl-d14	*	46.2-128		**74.4**	%REC	1	04/28/2026 21:31	255609
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS (TOTAL)								
Bis(2-ethylhexyl)phthalate	NELAP	6.0		**ND**	µg/L	1	04/29/2026 15:17	255726
Bis(chloromethyl)ether	*	10.0		**ND**	µg/L	1	04/29/2026 15:17	255726
Butyl benzyl phthalate	NELAP	5.0		**ND**	µg/L	1	04/29/2026 15:17	255726
Diethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 15:17	255726
Dimethyl phthalate	NELAP	10.0		**ND**	µg/L	1	04/29/2026 15:17	255726
Di-n-butyl phthalate	NELAP	10.0		**15.3**	µg/L	1	04/29/2026 15:17	255726
Isophorone	NELAP	10.0		**ND**	µg/L	1	04/29/2026 15:17	255726
m,p-Cresol	NELAP	10.0		**ND**	µg/L	1	04/29/2026 15:17	255726
Parathion	NELAP	5.0		**ND**	µg/L	1	04/29/2026 15:17	255726
Surr: 2,4,6-Tribromophenol	*	29-129		**57.1**	%REC	1	04/29/2026 15:17	255726
Surr: 2-Fluorobiphenyl	*	30.1-112		**47.7**	%REC	1	04/29/2026 15:17	255726
Surr: 2-Fluorophenol	*	18.7-95.3		**39.4**	%REC	1	04/29/2026 15:17	255726
Surr: Nitrobenzene-d5	*	23.6-113		**43.0**	%REC	1	04/29/2026 15:17	255726
Surr: Phenol-d5	*	15.9-72.2		**31.6**	%REC	1	04/29/2026 15:17	255726
Surr: p-Terphenyl-d14	*	17.9-114		**48.4**	%REC	1	04/29/2026 15:17	255726
SW-846 8011, DBCP & EDB BY GC/ECD								
1,2-Dibromo-3-chloropropane	*	0.05		**ND**	µg/L	1	04/24/2026 10:20	255511
1,2-Dibromoethane	*	0.05		**ND**	µg/L	1	04/24/2026 10:20	255511
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
1,1,1-Trichloroethane	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
1,1,2,2-Tetrachloroethane	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
1,1,2-Trichloroethane	NELAP	0.50		**ND**	µg/L	1	04/30/2026 13:30	255891
1,1-Dichloroethane	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
1,1-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
1,2,3-Trichlorobenzene	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
1,2,3-Trichloropropane	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-012 **Client Sample ID:** DUPLICATE

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,4-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
1,2-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
1,2-Dichloroethane	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
1,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
1,3,5-Trimethylbenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
1,3-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
1,3-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
1,4-Dichlorobenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
2,2-Dichloropropane	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
2-Butanone	NELAP	5.00		ND	µg/L	1	04/30/2026 13:30	255891
2-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/30/2026 13:30	255891
2-Hexanone	NELAP	10.0		ND	µg/L	1	04/30/2026 13:30	255891
4-Chlorotoluene	NELAP	1.00		ND	µg/L	1	04/30/2026 13:30	255891
4-Methyl-2-pentanone	NELAP	5.00		ND	µg/L	1	04/30/2026 13:30	255891
Acetone	NELAP	5.00		ND	µg/L	1	04/30/2026 13:30	255891
Acrolein	NELAP	5.00		ND	µg/L	1	04/30/2026 13:30	255891
Acrylonitrile	NELAP	5.00		ND	µg/L	1	04/30/2026 13:30	255891
Benzene	NELAP	0.50		ND	µg/L	1	04/30/2026 13:30	255891
Bromobenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Bromochloromethane	NELAP	1.00		ND	µg/L	1	04/30/2026 13:30	255891
Bromodichloromethane	NELAP	1.00		ND	µg/L	1	04/30/2026 13:30	255891
Bromoform	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Bromomethane	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Carbon disulfide	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Carbon tetrachloride	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Chlorobenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Chloroethane	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Chloroform	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Chloromethane	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
cis-1,2-Dichloroethene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
cis-1,3-Dichloropropene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Dibromochloromethane	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Dibromomethane	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Dichlorodifluoromethane	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Ethylbenzene	NELAP	1.00		ND	µg/L	1	04/30/2026 13:30	255891
Hexachlorobutadiene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Iodomethane	NELAP	3.00		ND	µg/L	1	04/30/2026 13:30	255891
Isopropylbenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
m,p-Xylenes	NELAP	1.00		ND	µg/L	1	04/30/2026 13:30	255891
Methylene chloride	NELAP	2.00	B	ND	µg/L	1	04/30/2026 13:30	255891
Naphthalene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
n-Butylbenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
n-Propylbenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
o-Xylene	NELAP	1.00		ND	µg/L	1	04/30/2026 13:30	255891
p-Isopropyltoluene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
sec-Butylbenzene	NELAP	2.00		ND	µg/L	1	04/30/2026 13:30	255891
Styrene	NELAP	1.00		ND	µg/L	1	04/30/2026 13:30	255891

Client: City Water, Light & Power **Work Order:** 26041297

Client Project: Landfill Monitoring Wells G1-G2-G3 **Report Date:** 26-May-26

Lab ID: 26041297-012 **Client Sample ID:** DUPLICATE

Matrix: GROUNDWATER **Collection Date:** 04/22/2026 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
tert-Butylbenzene	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
Tetrachloroethene	NELAP	0.50		**ND**	µg/L	1	04/30/2026 13:30	255891
Tetrahydrofuran	NELAP	5.00		**ND**	µg/L	1	04/30/2026 13:30	255891
Toluene	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
trans-1,2-Dichloroethene	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
trans-1,3-Dichloropropene	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
trans-1,4-Dichloro-2-butene	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
Trichloroethene	NELAP	1.00		**ND**	µg/L	1	04/30/2026 13:30	255891
Trichlorofluoromethane	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
Vinyl acetate	NELAP	5.00		**ND**	µg/L	1	04/30/2026 13:30	255891
Vinyl chloride	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
Xylenes, Total	NELAP	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
1,3-Dichloropropene, Total	*	2.00		**ND**	µg/L	1	04/30/2026 13:30	255891
Surr: 1,2-Dichloroethane-d4	*	80-120		**94.2**	%REC	1	04/30/2026 13:30	255891
Surr: 4-Bromofluorobenzene	*	80-120		**100.3**	%REC	1	04/30/2026 13:30	255891
Surr: Dibromofluoromethane	*	80-120		**98.7**	%REC	1	04/30/2026 13:30	255891
Surr: Toluene-d8	*	80-120		**97.6**	%REC	1	04/30/2026 13:30	255891

Contamination present in the MBLK for Methylene chloride. Sample results below the reporting limit are reportable per the TNI Standard.

Allowable Marginal Exceedance of Tetrachloroethene in the laboratory control sample is verified per the TNI Standard.

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 26041297
Client Project: Landfill Monitoring Wells G1-G2-G3
Report Date: 26-May-26

Carrier: Payton Yoch
Received By: LEH

Completed by: Laura E Henson
On: 22-Apr-26

Reviewed by: Allison Simpson
On: 23-Apr-26

Pages to follow: Chain of custody 3 Extra pages included 18

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	15.4
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐		
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐			

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☑	NA ☐

Any No responses must be detailed below or on the COC.

Preservation checks for O&G analysis are to be completed by the laboratory technician prior to analysis. - lhenson - 4/22/2026 4:31:53 PM

pH strip #104524/98858. -JD/ lhenson - 4/22/2026 4:31:56 PM

Samples submitted for total cyanide analysis for CWA/NPDES reporting were checked for interferences upon arrival at the laboratory. Lead Acetate strip #109495. -JD/ lhenson - 4/22/2026 4:32:00 PM

Additional sulfuric acid (108020) was needed for DUP upon arrival at the laboratory. - JD/lhenson - 4/22/2026 4:32:02 PM

Additional cooler temperatures: 10.2C, 8.4C, 10.4C, 13.6C. LTG#9. LH 4/22/26

Samples were received on 4/23/26 at 1304 on ice [temp12.6C, 11.2C, 18.4C - LTG#9]. Ph# 104524/98858. No headspace. No Sulfide/No Chlorine(109495) Added sodium hydroxide (109798) to G113. Received Dup 500ml unpreserved collected on 4/23/26 at 1017. Added as sample - 013. AMD - JD/lhenson - 4/23/2026 2:26:40 PM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 26041297

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

12.6, 11.2

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE 18.4 °C 9
Preserved in: ☒ LAB ☐ FIELD
FOR LAB USE ONLY
LAB NOTES: PH 104584 98858 Ø HS
Ø Sul BCL (109495)
Added NaOH (169798) G113 SD 4/23/26

Client Comments: Dup- received 500ml unp. collected 4/23/26 10:17. Added Cd 203 DM 4/23/26
Quarter 2 (even number years) G110 MS/MSD volume for SV; R11 MS/MSD volume for O&G, CN and VOC *elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2-G3

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide O&G OOH	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)	VOC Pest-PCB	SVOC-PSIMS	Herbicides	Endothall EDB-DBCP
26041297-001	R101		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
002	G110	4-23 959	Groundwater	17	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
003	R111		Groundwater	9	2	1	7	6					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
004	G112	4-23 1104	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
005	G113	4-23 1017	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
006	G120		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
007	G121		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
008	G122		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
009	AW-1	4-23 1002	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
010	AW-2		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
011	RW-3		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	4-23-26 1304		4/23/26 13:04

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 26041297

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

102, 8.4, 10.4, 13.6

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 15.4 °C 9
Preserved in: ☒ LAB ☐ FIELD PH 104524 98858 FOR LAB USE ONLY
LAB NOTES: Ø Sul CL present R101 (109495) Ø HS
Added H2SO4 (108620) 1/2 125 Amber Dup

Client Comments: JD 4/22/26
Quarter 2 (even number years) G110 MS/MSD volume for SV; R11 MS/MSD volume for O&G, CN and VOC *elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER: Landfill Monitoring Wells G1-G2-G3

SAMPLE COLLECTOR'S NAME: Justin Colp

RESULTS REQUESTED
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide O&G OOH	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)	VOC Pest-PCB	SVOC-PSIMS	Herbicides	Endothall EDB-DBCP
26041297-001	R101	4-22 1207	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
002	G110		Groundwater	17	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
003	R111	4-22 1131	Groundwater	9	2	1	7	6					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
004	G112		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
005	G113		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
006	G120	4-22 1023	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
007	G121	4-22 1125	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
008	G122	4-22 1221	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
009	AW-1		Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
010	AW-2	4-22 1019	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
011	RW-3	4-22 1107	Groundwater	9	2	1	5	3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	4/22/26 1457		4/22/26 1457

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 26041297

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
Quarter 2 (even number years)
*elevations, pH, conductivity, temperature
**As B Cd Cr Pb Mg Hg Zn
***Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn

PROJECT NAME/NUMBER
Landfill Monitoring Wells G1-G2-G3

SAMPLE COLLECTOR'S NAME
Justin Colp

RESULTS REQUESTED
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl SO4 TDS (D)	Metals (D)**	Cyanide O&G OOH	Nitrate (D)	Ammonia (D)	Metals (T)***	BOD Cl F SO4 (T)	NH3 COD TOC	Nitrate (T)	VOC Pest-PCB	SVOC-PSIMS	Herbicides	Endothall EDB-DBCP
26041297-012	DUPLICATE	4-22 1131	Groundwater	9	2	1	5	3						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
			Groundwater																							
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Relinquished By	Date/Time	Received By	Date/Time
	4/22/26 1457		4/22/26 1457

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Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	R101
Project Location:	Springfield, IL	**Sample ID:**	001
W.O. Number (s):	26041297	**Date (s):**	4/22/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 74 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing	X	
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/22/26 11:43 AM

Static Water Level: 6.83 feet below TOC

Total Depth: 35.27 feet below TOC

Water Column: 28.44 feet

Purging Activities

Purged By: DC Purge Date: 4/22/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 28.44 ft. x 0.022 = 0.63 L x 3 Vol. = 1.89 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: Slight Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
11:43	0.0	250	purge start time						
11:55	3.0	↓	7.21	1,085.80	16.97	1.06	-34.00	11.45	
11:58	3.8		7.21	1,086.20	16.94	0.95	-37.00	11.91	
12:01	4.5		7.21	1,085.40	16.67	0.86	-39.80	12.29	
12:04	5.3		7.21	1,084.90	16.56	0.82	-42.00	12.45	
12:07	6.0		7.21	1,085.30	16.23	0.80	-44.20	13.16	

Sampling Activities

Sampled By: BG Sample Date/Time: 4/22/2026 12:07

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 7.21 pH 1,085.30 Spec. Cond. 16.23 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 7.00 feet below TOC Drawdown: 0.17 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 4/22/2026

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	G110
Project Location:	Springfield, IL	**Sample ID:**	002
W.O. Number (s):	26041297	**Date (s):**	4/23/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 69 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/23/26 9:31 AM

Static Water Level: 24.71 feet below TOC

Total Depth: 57.15 feet below TOC

Water Column: 32.44 feet

Purging Activities

Purged By: JC — Purge Date: 4/23/2026

Purge Method: Low Flow — Well Diameter: 2"

Purge Volume Calculation (L): 32.44 ft. x 0.022 = 0.71 L x 3 Vol. = 2.13 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear — Odor: None — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:31	0.0	214	purge start time						
9:35	0.9	↓	6.59	571.90	16.87	1.93	-49.00	10.05	
9:38	1.5		6.62	569.10	16.97	1.85	-73.50	8.38	
9:41	2.1		6.63	566.00	16.89	1.63	-83.60	6.70	
9:44	2.8		6.64	561.90	16.76	1.41	-89.30	5.74	
9:47	3.4		6.65	557.50	16.02	1.05	-92.80	7.01	
9:50	4.1		6.67	553.80	15.98	0.91	-96.30	24.88	
9:53	4.7		6.68	552.00	16.10	0.86	-99.20	95.73	
9:56	5.4		6.68	550.50	16.88	0.99	-101.40	49.37	
9:59	6.0		6.68	553.30	16.81	1.03	-102.60	40.08	

Sampling Activities

Sampled By: JC — Sample Date/Time: 4/23/2026 9:59

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.68 pH — 553.30 Spec. Cond. — 16.81 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 24.85 feet below TOC — Drawdown: 0.14 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp — **Date:** 4/22/2026

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	R111
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	26041297	**Date (s):**	4/22/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/22/26 10:57 AM

Static Water Level: 25.22 feet below TOC

Total Depth: 55.75 feet below TOC

Water Column: 30.53 feet

Purging Activities

Purged By: JC Purge Date: 4/22/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 30.53 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:58	0.0	182	purge start time						
11:04	1.1	↓	7.09	389.20	16.24	1.79	-111.70	46.92	
11:07	1.6		6.95	355.70	16.34	1.58	-114.00	60.34	
11:10	2.2		6.90	373.40	16.57	1.45	-115.60	52.73	
11:13	2.7		6.85	433.00	16.54	1.35	-117.10	45.39	
11:16	3.3		6.83	482.70	16.66	1.27	-118.70	37.15	
11:19	3.8		6.80	664.60	16.52	1.22	-118.70	33.15	
11:22	4.4		6.80	793.90	16.75	1.19	-120.30	32.24	
11:25	4.9		6.81	862.40	16.59	1.17	-121.40	25.12	
11:28	5.5		6.81	876.40	16.82	1.16	-122.00	16.89	
11:31	6.0		6.81	888.20	17.00	1.16	-122.40	18.00	

Sampling Activities

Sampled By: JC Sample Date/Time: 4/22/2026 11:31

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.81 pH 888.20 Spec. Cond. 17.00 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 25.28 feet below TOC Drawdown: 0.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357
- Duplicate Collected

Form Completed By: Justin Colp **Date:** 4/22/2026

Field Data Sheet

Project Name: Landfill Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 26041297
Monitoring Point: G112
Sample ID: 004
Date (s): 4/23/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 73 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/23/26 10:53 AM
Static Water Level: 27.87 feet below TOC
Total Depth: 58.81 feet below TOC
Water Column: 30.94 feet

Purging Activities

Purged By: JC — Purge Date: 4/23/2026
Purge Method: Low Flow — Well Diameter: 2"
Purge Volume Calculation (L): 30.94 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 2.50 L
Physical appearance of purge water: Clear — Odor: Moderate — Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:53	0.0	227	purge start time						
10:55	0.5	↓	6.95	993.60	18.14	1.82	-96.00	6.93	
10:58	1.1		6.98	979.90	18.35	1.63	-120.60	6.95	
11:01	1.8		7.00	974.00	18.17	1.50	-131.10	7.90	
11:04	2.5		7.02	965.30	17.82	1.40	-136.30	7.80	

Sampling Activities

Sampled By: JC — Sample Date/Time: 4/23/2026 11:04
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 7.02 pH — 965.30 Spec. Cond. — 17.82 Temp
Field Filtered: Yes — Filter Type: Inline Disposable
Water Level: 28.56 feet below TOC — Drawdown: 0.69 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357

Form Completed By: Justin Colp — **Date:** 4/23/2026

Field Data Sheet

Project Name: Landfill Monitoring Wells
Monitoring Point: G113
Project Location: Springfield, IL
Sample ID: 005
W.O. Number (s): 26041297
Date (s): 4/23/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 72 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/23/26 9:43 AM
Static Water Level: 4.55 feet below TOC
Total Depth: 12.60 feet below TOC
Water Column: 8.05 feet

Purging Activities

Purged By: AL Purge Date: 4/23/2026
Purge Method: Low Flow Well Diameter: 2"
Purge Volume Calculation (L): 8.05 ft. x 0.022 = 0.18 L x 3 Vol. = 0.54 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 4.00 L
Physical appearance of purge water: Clear Odor: Moderate Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:43	0.0	118	purge start time						
9:59	1.9	↓	6.18	1,363.90	14.52	5.22	-58.00	8.76	
10:02	2.2		6.23	1,381.80	14.47	5.88	-61.40	9.15	
10:05	2.6		6.20	1,491.00	14.30	5.78	-62.30	10.71	
10:08	2.9		6.11	1,607.70	14.17	5.64	-57.20	13.09	
10:11	3.3		6.07	1,651.30	14.09	5.38	-53.70	15.13	
10:14	3.6		6.05	1,666.40	13.93	5.18	-52.40	11.79	
10:17	4.0		6.08	1,668.20	13.87	5.32	-53.10	6.69	

Sampling Activities

Sampled By: DN Sample Date/Time: 4/23/2025 10:17
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.08 pH 1,668.20 Spec. Cond. 13.87 Temp
Field Filtered: Yes Filter Type: Inline Disposable
Water Level: 7.01 feet below TOC Drawdown: 2.46 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223337

Form Completed By: Allison Lampe Date: 4/23/2025

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	G120
Project Location:	Springfield, IL	**Sample ID:**	006
W.O. Number (s):	26041297	**Date (s):**	4/22/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/22/26 9:55 AM

Static Water Level: 16.43 feet below TOC

Total Depth: 50.37 feet below TOC

Water Column: 33.94 feet

Purging Activities

Purged By: AL Purge Date: 4/22/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 33.94 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:55	0.0	179	purge start time						
10:14	3.4	↓	6.68	1,795.20	18.23	1.96	-41.50	71.51	
10:17	3.9		6.69	1,791.50	18.30	1.80	-67.50	72.97	
10:20	4.5		6.69	1,788.00	18.21	1.69	-82.70	83.16	
10:23	5.0		6.69	1,778.00	18.23	1.59	-92.70	83.39	

Sampling Activities

Sampled By: DN Sample Date/Time: 4/22/2026 10:23

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.69 pH 1,778.00 Spec. Cond. 18.23 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 16.55 feet below TOC Drawdown: 0.12 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223337

Form Completed By: A Nieters **Date:** 4/22/2026

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	G121
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	26041297	**Date (s):**	4/22/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing	X	
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Yes				

Groundwater Level Measurements

Date/Time Measured: 4/22/26 10:53 AM

Static Water Level: 28.33 feet below TOC

Total Depth: 58.56 feet below TOC

Water Column: 30.23 feet

Purging Activities

Purged By: DN Purge Date: 4/22/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 30.23 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:55	0.0	167	purge start time						
11:13	3.0	↓	6.87	1,396.60	16.47	1.94	-95.30	31.00	
11:16	3.5		6.86	1,395.00	16.51	1.80	-100.70	37.45	
11:19	4.0		6.84	1,395.90	16.48	1.70	-104.40	47.01	
11:22	4.5		6.82	1,395.20	16.62	1.61	-108.10	53.26	
11:25	5.0		6.82	1,396.00	16.45	1.54	-111.90	57.03	

Sampling Activities

Sampled By: DN Sample Date/Time: 4/22/2026 11:25

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.82 pH 1,396.00 Spec. Cond. 16.45 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 28.61 feet below TOC Drawdown: 0.28 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223337

Form Completed By: Allison Lampe **Date:** 4/22/2026

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	G122
Project Location:	Springfield, IL	**Sample ID:**	008
W.O. Number (s):	26041297	**Date (s):**	4/22/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Drew Nieters Affiliation: TekLab, Inc.

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/22/26 12:07 PM

Static Water Level: 29.95 feet below TOC

Total Depth: 49.29 feet below TOC

Water Column: 19.34 feet

Purging Activities

Purged By: AL Purge Date: 4/22/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 19.34 ft. x 0.022 = 0.43 L x 3 Vol. = 1.29 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 2.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
12:07	0.0	143	purge start time						
12:15	1.1	↓	6.86	1,556.80	19.04	3.29	-63.50	3.61	
12:18	1.6		6.85	1,571.70	19.21	2.85	-68.90	2.77	
12:21	2.0		6.85	1,577.40	19.39	2.58	-75.10	2.26	

Sampling Activities

Sampled By: DN Sample Date/Time: 4/22/2026 12:21

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.85 pH 1,577.40 Spec. Cond. 19.39 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 29.95 feet below TOC Drawdown: 0.00 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223337

Form Completed By: Allison Lampe Date: 4/22/2026

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	AW-1
Project Location:	Springfield, IL	**Sample ID:**	009
W.O. Number (s):	26041297	**Date (s):**	4/23/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 70 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 4/23/26 9:35 AM

Static Water Level: 14.96 feet below TOC

Total Depth: 54.81 feet below TOC

Water Column: 39.85 feet

Purging Activities

Purged By: DC Purge Date: 4/23/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 39.85 ft. x 0.022 = 0.88 L x 3 Vol. = 2.64 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Rust

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:35	0.0	222	purge start time						
9:50	3.3	↓	6.73	1,286.30	17.53	2.28	67.80	91.07	
9:53	4.0		6.73	1,284.30	17.48	2.25	69.40	103.83	
9:56	4.7		6.72	1,283.60	17.50	2.17	70.60	86.58	
9:59	5.3		6.72	1,284.50	17.64	2.04	71.40	63.80	
10:02	6.0		6.72	1,285.20	17.54	2.05	72.00	62.71	

Sampling Activities

Sampled By: BG Sample Date/Time: 4/23/2026 10:02

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.72 pH 1,285.20 Spec. Cond. 17.54 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 15.52 feet below TOC Drawdown: 0.56 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 4/23/2026

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	AW-2
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	26041297	**Date (s):**	4/22/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 69 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing	X	
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/22/26 9:56 AM

Static Water Level: 4.44 feet below TOC

Total Depth: 32.64 feet below TOC

Water Column: 28.20 feet

Purging Activities

Purged By: DC Purge Date: 4/22/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 28.2 ft. x 0.022 = 0.62 L x 3 Vol. = 1.86 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
9:56	0.0	217	purge start time						
10:07	2.4	↓	6.61	821.20	14.67	1.22	-52.20	19.30	
10:10	3.0		6.60	820.90	14.67	1.08	-57.30	20.46	
10:13	3.7		6.60	820.90	14.53	0.96	-61.30	22.25	
10:16	4.3		6.60	820.40	14.56	0.89	-64.40	20.26	
10:19	5.0		6.61	820.80	14.59	0.84	-66.10	19.69	

Sampling Activities

Sampled By: BG Sample Date/Time: 4/22/2026 10:19

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.61 pH 820.80 Spec. Cond. 14.59 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 6.34 feet below TOC Drawdown: 1.90 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 4/22/2026

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	RW-3
Project Location:	Springfield, IL	**Sample ID:**	011
W.O. Number (s):	26041297	**Date (s):**	4/22/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing	X	
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/22/26 10:47 AM

Static Water Level: 9.98 feet below TOC

Total Depth: 44.01 feet below TOC

Water Column: 34.03 feet

Purging Activities

Purged By: DC Purge Date: 4/22/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 34.03 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:47	0.0	250	purge start time						
10:55	2.0	↓	7.04	646.80	14.24	1.23	-54.00	5.91	
10:58	2.8		7.02	645.20	14.21	1.12	-59.10	7.09	
11:01	3.5		7.00	646.20	14.37	1.06	-63.70	9.19	
11:04	4.3		6.98	647.90	14.30	1.01	-69.40	9.09	
11:07	5.0		6.97	649.70	14.37	0.97	-75.60	13.19	

Sampling Activities

Sampled By: BG Sample Date/Time: 4/22/2026 11:07

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.97 pH 649.70 Spec. Cond. 14.37 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 10.56 feet below TOC Drawdown: 0.58 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51215

Form Completed By: Brett Gillihan **Date:** 4/22/2026

Field Data Sheet

Project Name:	Landfill Monitoring Wells	**Monitoring Point:**	Duplicate
Project Location:	Springfield, IL	**Sample ID:**	012
W.O. Number (s):	26041297	**Date (s):**	4/22/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 4/22/26 10:57 AM

Static Water Level: 25.22 feet below TOC

Total Depth: 55.75 feet below TOC

Water Column: 30.53 feet

Purging Activities

Purged By: JC Purge Date: 4/22/2026

Purge Method: Low Flow Well Diameter: 2"

Purge Volume Calculation (L): 30.53 ft. x 0.022 = 0.67 L x 3 Vol. = 2.01 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Other
10:58	0.0	182	purge start time						
11:04	1.1	↓	7.09	389.20	16.24	1.79	-111.70	46.92	
11:07	1.6		6.95	355.70	16.34	1.58	-114.00	60.34	
11:10	2.2		6.90	373.40	16.57	1.45	-115.60	52.73	
11:13	2.7		6.85	433.00	16.54	1.35	-117.10	45.39	
11:16	3.3		6.83	482.70	16.66	1.27	-118.70	37.15	
11:19	3.8		6.80	664.60	16.52	1.22	-118.70	33.15	
11:22	4.4		6.80	793.90	16.75	1.19	-120.30	32.24	
11:25	4.9		6.81	862.40	16.59	1.17	-121.40	25.12	
11:28	5.5		6.81	876.40	16.82	1.16	-122.00	16.89	
11:31	6.0		6.81	888.20	17.00	1.16	-122.40	18.00	

Sampling Activities

Sampled By: JC Sample Date/Time: 4/22/2026 11:31

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.81 pH 888.20 Spec. Cond. 17.00 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 25.28 feet below TOC Drawdown: 0.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223357
- QA/QC Sample. Collected at R111

Form Completed By: Justin Colp **Date:** 4/22/2026

Site Samping Event: LF Mon. Wells
LIMS Workorder: 26041297
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223357 Technician(s): justin colp Date: 4/21/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260306A	4.00	122.30	4/21/26 8:59
7.0 Buffer	WC251017B	7.00	-45.80	4/21/26 8:55
10.0 Buffer	WC251017C	10.00	-213.30	4/21/26 9:02
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/21/26 9:08

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.96	4/21/26 9:09
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	4/21/26 9:14	18.2	7.03	1,401	0.88		
CCV-1-JC	CCV	4/21/26 13:03	20.5	7.05	1,424	0.89		

Comments:

Field Meter ID: Pine 223357 Technician(s): justin colp Date: 4/22/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	121.80	4/22/26 9:17
7.0 Buffer	WC251017B	7.00	-46.80	4/22/26 9:15
10.0 Buffer	WC251017C	10.00	-213.10	4/22/26 9:21
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/22/26 9:24

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.93	4/22/26 9:26
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	4/22/26 9:28	20.8	7.01	1,414	0.95		
CCV-2-JC	CCV	4/22/26 12:57	23.4	7.04	1,393	0.93		

Comments:

Site Samping Event: LF Mon. Wells
LIMS Workorder: 26041297
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223357 Technician(s): justin colp Date: 4/23/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	118.80	4/23/26 9:08
7.0 Buffer	WC251017B	7.00	-49.00	4/23/26 9:05
10.0 Buffer	WC251017C	10.00	-213.60	4/23/26 9:12
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/23/26 9:17

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.94	4/23/26 9:18
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-JC	LCS	4/23/26 9:19	20.3	7.03	1,407	0.87		
CCV-3-JC	CCV	4/23/26 11:07	21.1	7.01	1,371	0.95		

Comments:

Site Samping Event: LF Mon. Wells
LIMS Workorder: 26041297
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 51295 Technician(s): Brett Gillihan Date: 4/21/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260306A	4.00	129.40	4/21/26 8:55
7.0 Buffer	WC251017B	7.00	-41.00	4/21/26 8:52
10.0 Buffer	WC251017C	10.00	-200.30	4/21/26 9:01
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1411	4/21/26 9:07

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.32	4/21/26 9:10
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	4/21/26 9:13	14.9	6.98	1,415	0.37		
CCV-1-BG	CCV	4/21/26 13:05	17.4	6.99	1,419	0.41		

Comments:

Field Meter ID: Pine 51215 Technician(s): Brett Gillihan Date: 4/22/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	123.90	4/22/26 9:34
7.0 Buffer	WC251017B	7.00	-39.70	4/22/26 9:31
10.0 Buffer	WC251017C	10.00	139.20	1/0/00 0:00
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1416	4/22/26 9:39

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.41	4/22/26 9:42
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	4/22/26 9:44	19.1	6.99	1,416	0.42		
CCV-2-BG	CCV	4/22/26 13:11	19.7	7.00	1,415	0.44		

Comments:

Site Samping Event: LF Mon. Wells
LIMS Workorder: 26041297
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 51215 Technician(s): Brett Gillihan Date: 4/23/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	125.40	4/23/26 9:08
7.0 Buffer	WC251017B	7.00	-37.20	4/23/26 9:01
10.0 Buffer	WC251017C	10.00	-193.40	4/23/26 9:10
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/23/26 9:17

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.36	4/23/26 9:21
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-BG	LCS	4/23/26 9:22	19.5	6.99	1,415	0.38		
CCV-3-BG	CCV	4/23/26 12:48	19.8	7.01	1,420	0.42		

Comments:

Site Samping Event: LF Mon. Wells
LIMS Workorder: 26041297
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223337 Technician(s): A.Lampe Date: 4/21/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260306A	4.00	148.70	4/21/26 9:09
7.0 Buffer	WC251017B	7.00	-26.00	4/21/26 9:12
10.0 Buffer	WC251017C	10.00	-196.20	4/21/26 9:17
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/21/26 9:18

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.67	4/21/26 9:22
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-AL	LCS	4/21/26 9:23	18.8	7.07	1,414	0.67		
CCV-1-AL	CCV	4/21/26 13:10	19	7.08	1,374	0.78		

Comments:

Field Meter ID: Pine 23337 Technician(s): A.Lampe Date: 4/22/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	148.80	4/22/26 9:27
7.0 Buffer	WC251017B	7.00	-27.60	4/22/26 9:29
10.0 Buffer	WC251017C	10.00	-196.90	4/22/26 9:31
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/22/26 9:34

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.78	4/22/26 9:36
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-AL	LCS	4/22/26 9:40	19.07	7.05	1,407	0.78		
CCV-2-AL	CCV	4/22/26 12:42	19.8	7.01	1,367	0.96		

Comments:

Site Samping Event: LF Mon. Wells
LIMS Workorder: 26041297
Technician(s): DC, JC, BG, AL, DN, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 23337 Technician(s): A.Lampe Date: 4/23/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC251017A	4.00	149.60	4/23/26 9:25
7.0 Buffer	WC251017B	7.00	-27.60	4/23/26 9:27
10.0 Buffer	WC251017C	10.00	-197.50	4/23/26 9:29
LCS/CCV (7.0 Buffer)	WC251017D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	4/23/26 9:31

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.45	4/23/26 9:32
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-AL	LCS	4/23/26 9:34	19.1	7.08	1,406	0.45		
CCV-3-AL	CCV	4/23/26 11:13	20.8	7.07	1,384	0.87		

Comments:

July 09, 2026

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100467
Kansas	E-10374
Kansas	E-10438
Louisiana	05002
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 26060603

Dear Eric Staley:

TEKLAB, INC received 10 samples on 6/18/2026 1:42:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Paul Schultz
Project Manager

Pschultz@teklabinc.com

Report Contents

Client: City Water, Light & Power
Work Order: 26060603
Client Project: FGDS Landfill
Report Date: 09-Jul-26

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	18
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 26060603

Client Project: FGDS Landfill **Report Date:** 09-Jul-26

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
A	Total Coliform and/or E. Coli (Result) is absent
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
P	Total Coliform and/or E. Coli (Result) is present
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
S	Opinion for Colisure analysis is Satisfactory
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
T.O.P.	Top of Pump
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)
U	Opinion for Colisure analysis is Unsatisfactory

Definitions

Client: City Water, Light & Power
Work Order: 26060603
Client Project: FGDS Landfill
Report Date: 09-Jul-26

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 26060603
Report Date: 09-Jul-26

Cooler Receipt Temp: 15.3 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville
Address 5445 Horseshoe Lake Road, Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville
Address 120 United Drive, Collinsville, IL 62234-7433
Phone (618) 344-1004
Fax
Email jhriley@teklabinc.com

Springfield
Address 3920 Pintail Dr, Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City
Address 8421 Nieman Road, Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air
Address 120 United Drive, Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago
Address 1319 Butterfield Rd., Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Client Project: FGDS Landfill

Work Order: 26060603

Report Date: 09-Jul-26

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100467	NELAP	1/31/2027	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2027	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2027	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2026	Collinsville
Arkansas	ADEQ	88-0966		3/14/2027	Collinsville
Illinois	IDPH	17584		5/31/2027	Collinsville
Iowa	IDNR	430		6/1/2028	Collinsville
Kansas	KDHE	E-92716		1/31/2027	Collinsville
Kentucky	KWLCP	KY98050		12/31/2026	Collinsville
Kentucky	KWLCP	KY98006		12/31/2026	Collinsville
Kentucky	UST	0073		1/31/2027	Collinsville
Louisiana	LDEQ	05003		6/30/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville

Client: City Water, Light & Power **Work Order:** 26060603

Client Project: FGDS Landfill **Report Date:** 09-Jul-26

Lab ID: 26060603-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 06/18/2026 11:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	06/18/2026 11:58	R386234
Depth to water	*	-5.00		**4.79**	ft	1	06/18/2026 11:58	R386234
Depth to water from measuring point	*	0		**7.59**	ft	1	06/18/2026 11:58	R386234
Elevation of groundwater surface	*	0		**539.21**	ft	1	06/18/2026 11:58	R386234
Measuring Point Elevation	*	0		**546.80**	ft	1	06/18/2026 11:58	R386234
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	06/18/2026 11:58	R386234
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.5**	NTU	1	06/18/2026 11:58	R386234
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.6**	°F	1	06/18/2026 11:58	R386234
SW-846 9040B								
pH, Field	*	1.00		**7.12**		1	06/18/2026 11:58	R386234
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1110**	µS/cm	1	06/18/2026 11:58	R386234
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**974**	mg/L	1	06/22/2026 9:32	R386246
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/20/2026 2:31	R386144
Chloride	NELAP	5.00		**114**	mg/L	10	06/20/2026 2:31	R386144
Sulfate	NELAP	10.0		**259**	mg/L	10	06/20/2026 2:31	R386144
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.283**	mg/L	1	06/19/2026 17:00	258454
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/19/2026 17:00	258454
Boron	NELAP	0.0200		**0.129**	mg/L	1	06/19/2026 17:00	258454
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/19/2026 17:00	258454
Calcium	NELAP	0.100		**136**	mg/L	1	06/19/2026 17:00	258454
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:00	258454
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:00	258454
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/19/2026 17:00	258454
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/19/2026 17:00	258454
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:04	258454
Arsenic	NELAP	0.0010		**0.0014**	mg/L	5	06/24/2026 13:04	258454
Lithium	*	0.0030		**0.0176**	mg/L	5	06/27/2026 16:37	258454
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:04	258454
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/24/2026 13:04	258454
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/24/2026 11:38	258478
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.400**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.100**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012
Radium-228 Uncertainty	*	0		**0.300**	+/-	1	07/01/2026 12:46	R387012

Client: City Water, Light & Power **Work Order:** 26060603

Client Project: FGDS Landfill **Report Date:** 09-Jul-26

Lab ID: 26060603-002 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 06/18/2026 9:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	06/18/2026 9:29	R386234
Depth to water	*	-5.00		**25.91**	ft	1	06/18/2026 9:29	R386234
Depth to water from measuring point	*	0		**27.78**	ft	1	06/18/2026 9:29	R386234
Elevation of groundwater surface	*	0		**527.82**	ft	1	06/18/2026 9:29	R386234
Measuring Point Elevation	*	0		**555.60**	ft	1	06/18/2026 9:29	R386234
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	06/18/2026 9:29	R386234
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.2**	NTU	1	06/18/2026 9:29	R386234
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.2**	°F	1	06/18/2026 9:29	R386234
SW-846 9040B								
pH, Field	*	1.00		**6.66**		1	06/18/2026 9:29	R386234
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1590**	µS/cm	1	06/18/2026 9:29	R386234
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1040**	mg/L	1	06/22/2026 9:32	R386246
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/20/2026 3:47	R386144
Chloride	NELAP	5.00		**30.4**	mg/L	10	06/20/2026 3:47	R386144
Sulfate	NELAP	10.0		**335**	mg/L	10	06/20/2026 3:47	R386144
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.500**	mg/L	1	06/19/2026 17:01	258454
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/19/2026 17:01	258454
Boron	NELAP	0.0200		**4.03**	mg/L	1	06/19/2026 17:01	258454
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/19/2026 17:01	258454
Calcium	NELAP	0.100		**189**	mg/L	1	06/19/2026 17:01	258454
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:01	258454
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:01	258454
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/19/2026 17:01	258454
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/19/2026 17:01	258454
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:07	258454
Arsenic	NELAP	0.0010		**0.0141**	mg/L	5	06/24/2026 13:07	258454
Lithium	*	0.0030		**0.0076**	mg/L	5	06/27/2026 16:41	258454
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:07	258454
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/24/2026 13:07	258454
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/24/2026 11:40	258478
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.480**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.090**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012
Radium-228 Uncertainty	*	0		**0.390**	+/-	1	07/01/2026 12:46	R387012

Client: City Water, Light & Power
Work Order: 26060603
Client Project: FGDS Landfill
Report Date: 09-Jul-26
Lab ID: 26060603-003
Client Sample ID: G122
Matrix: GROUNDWATER
Collection Date: 06/18/2026 11:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**506.11**	ft	1	06/18/2026 11:00	R386234
Depth to water	*	-5.00		**27.10**	ft	1	06/18/2026 11:00	R386234
Depth to water from measuring point	*	0		**28.84**	ft	1	06/18/2026 11:00	R386234
Elevation of groundwater surface	*	0		**526.56**	ft	1	06/18/2026 11:00	R386234
Measuring Point Elevation	*	0		**555.40**	ft	1	06/18/2026 11:00	R386234
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	06/18/2026 11:00	R386234
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**22**	NTU	1	06/18/2026 11:00	R386234
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.6**	°F	1	06/18/2026 11:00	R386234
SW-846 9040B								
pH, Field	*	1.00		**6.56**		1	06/18/2026 11:00	R386234
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1770**	µS/cm	1	06/18/2026 11:00	R386234
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1290**	mg/L	1	06/22/2026 9:32	R386246
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/20/2026 4:00	R386144
Chloride	NELAP	5.00		**38.4**	mg/L	10	06/20/2026 4:00	R386144
Sulfate	NELAP	10.0		**516**	mg/L	10	06/20/2026 4:00	R386144
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.520**	mg/L	1	06/19/2026 17:02	258454
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/19/2026 17:02	258454
Boron	NELAP	0.0200		**10.6**	mg/L	1	06/19/2026 17:02	258454
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/19/2026 17:02	258454
Calcium	NELAP	0.100		**245**	mg/L	1	06/19/2026 17:02	258454
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:02	258454
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:02	258454
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/19/2026 17:02	258454
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/19/2026 17:02	258454
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:11	258454
Arsenic	NELAP	0.0010		**0.0019**	mg/L	5	06/24/2026 13:11	258454
Lithium	*	0.0030		**0.0072**	mg/L	5	06/27/2026 16:45	258454
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:11	258454
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/24/2026 13:11	258454
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/24/2026 11:43	258478
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.440**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.090**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012
Radium-228 Uncertainty	*	0		**0.350**	+/-	1	07/01/2026 12:46	R387012

Client: City Water, Light & Power **Work Order:** 26060603

Client Project: FGDS Landfill **Report Date:** 09-Jul-26

Lab ID: 26060603-004 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 06/18/2026 11:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	06/18/2026 11:15	R386234
Depth to water	*	-5.00		**0.15**	ft	1	06/18/2026 11:15	R386234
Depth to water from measuring point	*	0		**3.45**	ft	1	06/18/2026 11:15	R386234
Elevation of groundwater surface	*	0		**526.53**	ft	1	06/18/2026 11:15	R386234
Measuring Point Elevation	*	0		**529.98**	ft	1	06/18/2026 11:15	R386234
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	06/18/2026 11:15	R386234
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.9**	NTU	1	06/18/2026 11:15	R386234
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.0**	°F	1	06/18/2026 11:15	R386234
SW-846 9040B								
pH, Field	*	1.00		**6.33**		1	06/18/2026 11:15	R386234
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1110**	µS/cm	1	06/18/2026 11:15	R386234
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**826**	mg/L	1	06/22/2026 9:32	R386246
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/20/2026 4:12	R386144
Chloride	NELAP	5.00		**29.4**	mg/L	10	06/20/2026 4:12	R386144
Sulfate	NELAP	10.0		**174**	mg/L	10	06/20/2026 4:12	R386144
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.603**	mg/L	1	06/19/2026 17:08	258454
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/19/2026 17:08	258454
Boron	NELAP	0.0200		**3.06**	mg/L	1	06/19/2026 17:08	258454
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/19/2026 17:08	258454
Calcium	NELAP	0.100	S	**158**	mg/L	1	06/19/2026 17:08	258454
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:08	258454
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:08	258454
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/19/2026 17:08	258454
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/19/2026 17:08	258454
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:15	258454
Arsenic	NELAP	0.0010		**0.0144**	mg/L	5	06/24/2026 13:15	258454
Lithium	*	0.0030		**0.0050**	mg/L	5	06/27/2026 17:04	258454
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:15	258454
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/24/2026 13:15	258454
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/24/2026 11:49	258478
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.580**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.100**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012

Client: City Water, Light & Power
Work Order: 26060603
Client Project: FGDS Landfill
Report Date: 09-Jul-26
Lab ID: 26060603-004
Client Sample ID: AW-2
Matrix: GROUNDWATER
Collection Date: 06/18/2026 11:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.480**	+/-	1	07/01/2026 12:46	R387012

Client: City Water, Light & Power **Work Order:** 26060603

Client Project: FGDS Landfill **Report Date:** 09-Jul-26

Lab ID: 26060603-005 **Client Sample ID:** P07D

Matrix: GROUNDWATER **Collection Date:** 06/17/2026 10:16

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.71**	ft	1	06/17/2026 10:16	R386234
Depth to water	*	-5.00		**0.49**	ft	1	06/17/2026 10:16	R386234
Depth to water from measuring point	*	0		**3.49**	ft	1	06/17/2026 10:16	R386234
Elevation of groundwater surface	*	0		**524.76**	ft	1	06/17/2026 10:16	R386234
Measuring Point Elevation	*	0		**528.25**	ft	1	06/17/2026 10:16	R386234
Measuring Point Height Above Land Surface	*	0		**3.00**	ft	1	06/17/2026 10:16	R386234
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**18**	NTU	1	06/17/2026 10:16	R386234
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.1**	°F	1	06/17/2026 10:16	R386234
SW-846 9040B								
pH, Field	*	1.00		**6.70**		1	06/17/2026 10:16	R386234
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1280**	µS/cm	1	06/17/2026 10:16	R386234
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**992**	mg/L	1	06/19/2026 10:05	R386291
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/23/2026 17:24	R386306
Chloride	NELAP	5.00		**31.0**	mg/L	10	06/23/2026 17:24	R386306
Sulfate	NELAP	10.0		**290**	mg/L	10	06/23/2026 17:24	R386306
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.854**	mg/L	1	06/19/2026 16:05	258385
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/19/2026 16:05	258385
Boron	NELAP	0.0200		**4.94**	mg/L	1	06/19/2026 16:05	258385
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/19/2026 16:05	258385
Calcium	NELAP	0.100		**185**	mg/L	1	06/19/2026 16:05	258385
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 16:05	258385
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 16:05	258385
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/19/2026 16:05	258385
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/19/2026 16:05	258385
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/01/2026 16:08	258385
Arsenic	NELAP	0.0010		**0.0272**	mg/L	5	07/01/2026 16:08	258385
Lithium	*	0.0400		**< 0.0400**	mg/L	5	06/26/2026 17:30	258385
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/01/2026 16:08	258385
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/01/2026 16:08	258385
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/18/2026 12:35	258402
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.460**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.110**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012
Radium-228 Uncertainty	*	0		**0.350**	+/-	1	07/01/2026 12:46	R387012

Client: City Water, Light & Power **Work Order:** 26060603

Client Project: FGDS Landfill **Report Date:** 09-Jul-26

Lab ID: 26060603-006 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 06/18/2026 10:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	06/18/2026 10:04	R386234
Depth to water	*	-5.00		**11.81**	ft	1	06/18/2026 10:04	R386234
Depth to water from measuring point	*	0		**14.56**	ft	1	06/18/2026 10:04	R386234
Elevation of groundwater surface	*	0		**541.04**	ft	1	06/18/2026 10:04	R386234
Measuring Point Elevation	*	0		**555.60**	ft	1	06/18/2026 10:04	R386234
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	06/18/2026 10:04	R386234
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**26**	NTU	1	06/18/2026 10:04	R386234
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.3**	°F	1	06/18/2026 10:04	R386234
SW-846 9040B								
pH, Field	*	1.00		**6.59**		1	06/18/2026 10:04	R386234
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1310**	µS/cm	1	06/18/2026 10:04	R386234
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1130**	mg/L	1	06/22/2026 9:32	R386246
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/20/2026 4:25	R386144
Chloride	NELAP	5.00		**39.3**	mg/L	10	06/20/2026 4:25	R386144
Sulfate	NELAP	10.0		**411**	mg/L	10	06/20/2026 4:25	R386144
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.110**	mg/L	1	06/19/2026 17:03	258454
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/19/2026 17:03	258454
Boron	NELAP	0.0200		**10.0**	mg/L	1	06/19/2026 17:03	258454
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/19/2026 17:03	258454
Calcium	NELAP	0.100		**211**	mg/L	1	06/19/2026 17:03	258454
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:03	258454
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:03	258454
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/19/2026 17:03	258454
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/19/2026 17:03	258454
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:48	258454
Arsenic	NELAP	0.0010		**0.0357**	mg/L	5	06/24/2026 13:48	258454
Lithium	*	0.0030		**0.0104**	mg/L	5	06/27/2026 16:48	258454
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:48	258454
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/24/2026 13:48	258454
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/24/2026 11:51	258478
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.420**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012
Radium-228 Uncertainty	*	0		**0.360**	+/-	1	07/01/2026 12:46	R387012

Client: City Water, Light & Power **Work Order:** 26060603

Client Project: FGDS Landfill **Report Date:** 09-Jul-26

Lab ID: 26060603-007 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 06/17/2026 10:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	06/17/2026 10:15	R386234
Depth to water	*	-5.00		**16.91**	ft	1	06/17/2026 10:15	R386234
Depth to water from measuring point	*	0		**16.91**	ft	1	06/17/2026 10:15	R386234
Elevation of groundwater surface	*	0		**536.19**	ft	1	06/17/2026 10:15	R386234
Measuring Point Elevation	*	0		**553.10**	ft	1	06/17/2026 10:15	R386234
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	06/17/2026 10:15	R386234
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**59**	NTU	1	06/17/2026 10:15	R386234
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.6**	°F	1	06/17/2026 10:15	R386234
SW-846 9040B								
pH, Field	*	1.00		**6.61**		1	06/17/2026 10:15	R386234
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1910**	µS/cm	1	06/17/2026 10:15	R386234
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1440**	mg/L	1	06/19/2026 10:05	R386291
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/23/2026 18:15	R386306
Chloride	NELAP	5.00		**37.6**	mg/L	10	06/23/2026 18:15	R386306
Sulfate	NELAP	10.0		**566**	mg/L	10	06/23/2026 18:15	R386306
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**1.88**	mg/L	1	06/19/2026 16:07	258385
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/19/2026 16:07	258385
Boron	NELAP	0.0200		**7.87**	mg/L	1	06/19/2026 16:07	258385
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/19/2026 16:07	258385
Calcium	NELAP	0.100		**263**	mg/L	1	06/19/2026 16:07	258385
Chromium	NELAP	0.0050		**0.0061**	mg/L	1	06/19/2026 16:07	258385
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 16:07	258385
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/19/2026 16:07	258385
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/19/2026 16:07	258385
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/01/2026 16:11	258385
Arsenic	NELAP	0.0010		**0.0169**	mg/L	5	07/01/2026 16:11	258385
Lithium	*	0.0400		**< 0.0400**	mg/L	5	06/26/2026 17:33	258385
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/01/2026 16:11	258385
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/01/2026 16:11	258385
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/18/2026 12:37	258402
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.490**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.100**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012
Radium-228 Uncertainty	*	0		**0.390**	+/-	1	07/01/2026 12:46	R387012

Client: City Water, Light & Power **Work Order:** 26060603

Client Project: FGDS Landfill **Report Date:** 09-Jul-26

Lab ID: 26060603-008 **Client Sample ID:** AW-4

Matrix: GROUNDWATER **Collection Date:** 06/17/2026 10:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.89**	ft	1	06/17/2026 10:14	R386234
Depth to water	*	-5.00		**18.30**	ft	1	06/17/2026 10:14	R386234
Depth to water from measuring point	*	0		**17.97**	ft	1	06/17/2026 10:14	R386234
Elevation of groundwater surface	*	0		**534.59**	ft	1	06/17/2026 10:14	R386234
Measuring Point Elevation	*	0		**552.56**	ft	1	06/17/2026 10:14	R386234
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	06/17/2026 10:14	R386234
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**32**	NTU	1	06/17/2026 10:14	R386234
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.0**	°F	1	06/17/2026 10:14	R386234
SW-846 9040B								
pH, Field	*	1.00		**6.44**		1	06/17/2026 10:14	R386234
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1360**	µS/cm	1	06/17/2026 10:14	R386234
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1130**	mg/L	1	06/19/2026 10:05	R386291
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/23/2026 18:27	R386306
Chloride	NELAP	5.00		**32.0**	mg/L	10	06/23/2026 18:27	R386306
Sulfate	NELAP	10.0		**408**	mg/L	10	06/23/2026 18:27	R386306
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.556**	mg/L	1	06/19/2026 16:08	258385
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/19/2026 16:08	258385
Boron	NELAP	0.0200		**0.177**	mg/L	1	06/19/2026 16:08	258385
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/19/2026 16:08	258385
Calcium	NELAP	0.100		**205**	mg/L	1	06/19/2026 16:08	258385
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 16:08	258385
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 16:08	258385
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/19/2026 16:08	258385
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/19/2026 16:08	258385
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/01/2026 16:15	258385
Arsenic	NELAP	0.0010		**0.0143**	mg/L	5	07/01/2026 16:15	258385
Lithium	*	0.0400		**< 0.0400**	mg/L	5	06/26/2026 17:36	258385
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/01/2026 16:15	258385
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/01/2026 16:15	258385
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/18/2026 12:40	258402
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.370**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012
Radium-228 Uncertainty	*	0		**0.300**	+/-	1	07/01/2026 12:46	R387012

Client: City Water, Light & Power **Work Order:** 26060603

Client Project: FGDS Landfill **Report Date:** 09-Jul-26

Lab ID: 26060603-009 **Client Sample ID:** AW-5

Matrix: GROUNDWATER **Collection Date:** 06/18/2026 10:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**492.77**	ft	1	06/18/2026 10:02	R386234
Depth to water	*	-5.00		**23.42**	ft	1	06/18/2026 10:02	R386234
Depth to water from measuring point	*	0		**22.98**	ft	1	06/18/2026 10:02	R386234
Elevation of groundwater surface	*	0		**528.85**	ft	1	06/18/2026 10:02	R386234
Measuring Point Elevation	*	0		**551.83**	ft	1	06/18/2026 10:02	R386234
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	06/18/2026 10:02	R386234
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**66**	NTU	1	06/18/2026 10:02	R386234
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.3**	°F	1	06/18/2026 10:02	R386234
SW-846 9040B								
pH, Field	*	1.00		**6.43**		1	06/18/2026 10:02	R386234
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**965**	µS/cm	1	06/18/2026 10:02	R386234
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**646**	mg/L	1	06/22/2026 9:32	R386246
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/20/2026 4:38	R386144
Chloride	NELAP	5.00		**27.4**	mg/L	10	06/20/2026 4:38	R386144
Sulfate	NELAP	10.0		**25.3**	mg/L	10	06/20/2026 4:38	R386144
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.312**	mg/L	1	06/19/2026 17:03	258454
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/19/2026 17:03	258454
Boron	NELAP	0.0200		**0.259**	mg/L	1	06/19/2026 17:03	258454
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/19/2026 17:03	258454
Calcium	NELAP	0.100		**120**	mg/L	1	06/19/2026 17:03	258454
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:03	258454
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:03	258454
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/19/2026 17:03	258454
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/19/2026 17:03	258454
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:51	258454
Arsenic	NELAP	0.0010		**0.0086**	mg/L	5	06/24/2026 13:51	258454
Lithium	*	0.0030		**0.0208**	mg/L	5	06/27/2026 16:52	258454
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:51	258454
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/24/2026 13:51	258454
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/24/2026 11:53	258478
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.340**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012
Radium-228 Uncertainty	*	0		**0.270**	+/-	1	07/01/2026 12:46	R387012

Client: City Water, Light & Power **Work Order:** 26060603

Client Project: FGDS Landfill **Report Date:** 09-Jul-26

Lab ID: 26060603-010 **Client Sample ID:** AW-6

Matrix: GROUNDWATER **Collection Date:** 06/18/2026 11:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**493.67**	ft	1	06/18/2026 11:17	R386234
Depth to water	*	-5.00		**-0.58**	ft	1	06/18/2026 11:17	R386234
Depth to water from measuring point	*	0		**1.86**	ft	1	06/18/2026 11:17	R386234
Elevation of groundwater surface	*	0		**525.25**	ft	1	06/18/2026 11:17	R386234
Measuring Point Elevation	*	0		**527.11**	ft	1	06/18/2026 11:17	R386234
Measuring Point Height Above Land Surface	*	0		**2.44**	ft	1	06/18/2026 11:17	R386234
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**38**	NTU	1	06/18/2026 11:17	R386234
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.0**	°F	1	06/18/2026 11:17	R386234
SW-846 9040B								
pH, Field	*	1.00		**6.80**		1	06/18/2026 11:17	R386234
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1810**	µS/cm	1	06/18/2026 11:17	R386234
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1570**	mg/L	1	06/22/2026 10:21	R386246
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/20/2026 4:50	R386144
Chloride	NELAP	5.00		**423**	mg/L	10	06/20/2026 4:50	R386144
Sulfate	NELAP	10.0		**96.4**	mg/L	10	06/20/2026 4:50	R386144
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.950**	mg/L	1	06/19/2026 17:10	258454
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	06/19/2026 17:10	258454
Boron	NELAP	0.0200		**9.21**	mg/L	1	06/19/2026 17:10	258454
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	06/19/2026 17:10	258454
Calcium	NELAP	0.100		**228**	mg/L	1	06/19/2026 17:10	258454
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:10	258454
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	06/19/2026 17:10	258454
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	06/19/2026 17:10	258454
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	06/19/2026 17:10	258454
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:55	258454
Arsenic	NELAP	0.0010		**0.0301**	mg/L	5	06/24/2026 13:55	258454
Lithium	*	0.0030		**0.0077**	mg/L	5	06/27/2026 16:56	258454
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	06/24/2026 13:55	258454
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	06/24/2026 13:55	258454
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	06/24/2026 11:55	258478
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**2.21**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.550**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**1.40**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.150**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012
Radium-228 Uncertainty	*	0		**0.400**	+/-	1	07/01/2026 12:46	R387012

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 26060603
Report Date: 09-Jul-26

Carrier: Justin Colp

Received By: NK

Completed by: Emily Kossakoski
On: 17-Jun-26
Emily Kossakoski

Reviewed by: Amber Dilallo
On: 18-Jun-26
Amber Dilallo

Pages to follow: Chain of custody 2 Extra pages included 24

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 15.3
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #104524. - NK/ekossakoski - 6/17/2026 3:18:09 PM

Samples were received on 6/18/26 at 1342 on ice [temp17.5C, 8.7C, 17.9C - LTG#9]. pH# 104524. Added nitric acid (110747) to G121, AW2. -NO/lhenson - 6/18/2026 2:16:16 PM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 26060603

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 15.3 °C 3
Preserved in: [ ] LAB [x] FIELD FOR LAB USE ONLY
LAB NOTES: PH 164524 NL 6/17/26

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

PROJECT NAME/NUMBER: FGDS Landfill
SAMPLE COLLECTOR'S NAME: Justin Colp

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	CI F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
26060603-001	R101		Groundwater	1	4								✔	✔	✔	✔	✔	✔
002	G121		Groundwater	1	4								✔	✔	✔	✔	✔	✔
003	G122		Groundwater	1	4								✔	✔	✔	✔	✔	✔
004	AW-2		Groundwater	1	4								✔	✔	✔	✔	✔	✔
005	P07D	6-17 1016	Groundwater	1	4								✔	✔	✔	✔	✔	✔
006	AW-1		Groundwater	1	4								✔	✔	✔	✔	✔	✔
007	G120	6-17 1015	Groundwater	1	4								✔	✔	✔	✔	✔	✔
008	AW-4	6-17 1014	Groundwater	1	4								✔	✔	✔	✔	✔	✔
009	AW-5		Groundwater	1	4								✔	✔	✔	✔	✔	✔
010	AW-6		Groundwater	1	4								✔	✔	✔	✔	✔	✔
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	6-17 1202	[signature]	6-17 1202

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 26060603

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 17.3, 18.2, 17.9C Hg9
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: 1 Aw-5 bottle, 1 Aw-6 bottle NO 6/18/26
PH/ 605321 added HNO3 to 2/3 G121 bottles, 1 Aw-2 bottle

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER: FGDS Landfill
SAMPLE COLLECTOR'S NAME: Justin Colp

RESULTS REQUESTED: [✓] Standard [ ] 1-2 Day (100% Surcharge) [ ] Other _____ [ ] 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
26060603-001	R101	6-18 1158	Groundwater	1	4								✓	✓	✓	✓	✓	✓
002	G121	6-18 929	Groundwater	1	4								✓	✓	✓	✓	✓	✓
003	G122	6-18 1100	Groundwater	1	4								✓	✓	✓	✓	✓	✓
004	AW-2	6-18 1115	Groundwater	1	4								✓	✓	✓	✓	✓	✓
005	P07D		Groundwater	1	4								✓	✓	✓	✓	✓	✓
006	AW-1	6-18 1004	Groundwater	1	4								✓	✓	✓	✓	✓	✓
007	G120		Groundwater	1	4								✓	✓	✓	✓	✓	✓
008	AW-4		Groundwater	1	4								✓	✓	✓	✓	✓	✓
009	AW-5	6-18 1002	Groundwater	1	4								✓	✓	✓	✓	✓	✓
010	AW-6	6-18 1117	Groundwater	1	4								✓	✓	✓	✓	✓	✓
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	6-18-26 1342		6/18/26 1342

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

July 07, 2026

Shelly Hennessy
TEKLAB Inc,
120 United Drive
Collinsville, IL 62234
TEL:
FAX:

RE: 26060603

Dear Shelly Hennessy:

Order No.: 26061760

Alliance Technical Group - Akron received 10 sample(s) on 6/22/2026 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0828, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **26061760**
Date: **7/7/2026**

CLIENT: TEKLAB Inc,
Project: 26060603

WorkOrder Narrative:
26061760: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence Sample Notes:
26061760-001A Radium-228_NPW(904.0): Sample exhibits low yield, and is confirmed by DUP.
26061760-004A Radium-228_NPW(904.0): Sample exhibits low yield. Sample is an NPW.

Analytical Sequence QC Notes:
LCS/LCSD-97614 Radium-228_DW(904.0): LCS/LCSD demonstrate high RPD. Both results are within acceptable criteria individually.
26061760-001ADUP Radium-228_NPW(904.0): Sample exhibits low yield, and is confirmed by DUP.

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Workorder Sample Summary

WO#: **26061760**

07-Jul-26

CLIENT: TEKLAB Inc,
Project: 26060603

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
26061760-001	26060603-001		6/18/2026 11:58:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water
26061760-002	26060603-002		6/18/2026 9:29:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water
26061760-003	26060603-003		6/18/2026 11:00:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water
26061760-004	26060603-004		6/18/2026 11:15:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water
26061760-005	26060603-005		6/17/2026 10:16:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water
26061760-006	26060603-006		6/18/2026 10:04:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water
26061760-007	26060603-007		6/17/2026 10:15:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water
26061760-008	26060603-008		6/17/2026 10:14:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water
26061760-009	26060603-009		6/18/2026 10:02:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water
26061760-010	26060603-010		6/18/2026 11:17:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water

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Analytical Report

(consolidated)

WO#: **26061760**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,

Collection Date: 6/18/2026 11:58:00 AM

Project: 26060603

Lab ID: 26061760-001

Matrix: NON-POTABLE WATER

Client Sample ID: 26060603-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.400	1	7/2/2026 10:05:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.100	1	7/2/2026 10:05:00 AM
Yield	0.650					1	7/2/2026 10:05:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.300	1	7/1/2026 12:46:00 PM
Yield	0.650					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26061760**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,

Collection Date: 6/18/2026 9:29:00 AM

Project: 26060603

Lab ID: 26061760-002

Matrix: NON-POTABLE WATER

Client Sample ID: 26060603-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.480	1	7/2/2026 10:05:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0900	1	7/2/2026 10:05:00 AM
Yield	0.960					1	7/2/2026 10:05:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.390	1	7/1/2026 12:46:00 PM
Yield	0.730					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26061760**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,

Collection Date: 6/18/2026 11:00:00 AM

Project: 26060603

Lab ID: 26061760-003

Matrix: NON-POTABLE WATER

Client Sample ID: 26060603-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.440	1	7/2/2026 10:05:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0900	1	7/2/2026 10:05:00 AM
Yield	0.950					1	7/2/2026 10:05:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.350	1	7/1/2026 12:46:00 PM
Yield	0.860					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26061760**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,
Project: 26060603
Lab ID: 26061760-004
Client Sample ID: 26060603-004

Collection Date: 6/18/2026 11:15:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.580	1	7/2/2026 10:05:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.100	1	7/2/2026 10:05:00 AM
Yield	0.930					1	7/2/2026 10:05:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.480	1	7/1/2026 12:46:00 PM
Yield	0.600					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

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WO#: **26061760**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,

Collection Date: 6/17/2026 10:16:00 AM

Project: 26060603

Lab ID: 26061760-005

Matrix: NON-POTABLE WATER

Client Sample ID: 26060603-005

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.460	1	7/2/2026 10:05:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.110	1	7/2/2026 10:05:00 AM
Yield	1.00					1	7/2/2026 10:05:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.350	1	7/1/2026 12:46:00 PM
Yield	1.00					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26061760**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,

Collection Date: 6/18/2026 10:04:00 AM

Project: 26060603

Lab ID: 26061760-006

Matrix: NON-POTABLE WATER

Client Sample ID: 26060603-006

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.420	1	7/2/2026 10:05:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	7/2/2026 10:05:00 AM
Yield	0.830					1	7/2/2026 10:05:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.360	1	7/1/2026 12:46:00 PM
Yield	0.830					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26061760**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,
Project: 26060603
Lab ID: 26061760-007
Client Sample ID: 26060603-007

Collection Date: 6/17/2026 10:15:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.490	1	7/2/2026 10:05:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.100	1	7/2/2026 10:05:00 AM
Yield	1.00					1	7/2/2026 10:05:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	ND	1.00		pCi/L	± 0.390	1	7/1/2026 12:46:00 PM
Yield	1.00					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26061760**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,
Project: 26060603
Lab ID: 26061760-008
Client Sample ID: 26060603-008

Collection Date: 6/17/2026 10:14:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.370	1	7/2/2026 10:05:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0700	1	7/2/2026 10:05:00 AM
Yield	1.00					1	7/2/2026 10:05:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.300	1	7/1/2026 12:46:00 PM
Yield	1.00					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26061760**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,

Collection Date: 6/18/2026 10:02:00 AM

Project: 26060603

Lab ID: 26061760-009

Matrix: NON-POTABLE WATER

Client Sample ID: 26060603-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.340	1	7/2/2026 10:05:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0700	1	7/2/2026 10:05:00 AM
Yield	1.00					1	7/2/2026 10:05:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.270	1	7/1/2026 12:46:00 PM
Yield	1.00					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26061760**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,
Project: 26060603
Lab ID: 26061760-010
Client Sample ID: 26060603-010

Collection Date: 6/18/2026 11:17:00 AM
Matrix: NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	2.21	2.00		pCi/L	± 0.550	1	7/2/2026 10:05:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	1.40	1.00		pCi/L	± 0.150	1	7/2/2026 10:05:00 AM
Yield	1.00					1	7/2/2026 10:05:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.400	1	7/1/2026 12:46:00 PM
Yield	1.00					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Qualifiers and Acronyms

WO#: **26061760**
Date: **7/7/2026**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
D	Manual integration in which peak was deleted.
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	A deviation from the method was performed; Please refer to the Case Narrative for additional information.

Acroynms

ND	Not Detected
QC	Quality Control
MB	Method Blank
LCS	Laboratory Control Sample
LCS	Laboratory Control Sample Duplicate
QCS	Quality Control Sample
DUP	Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Different
ICV	Initial Calibration Verification
ICB	Initial Calibration Blank
CCV	Continuing Calibration Verification
CCB	Continuing Calibration Blank
RLC	Reporting Limit Check
DF	Dilution Factor

RL	Reporting Limit
MDL	Method Detection Limit
LOD	Level of Detection
LOQ	Level of Quantitation
PQL	Practical Quantitation Limit
CRQL	Contract Required Quantitation Limit
PL	Permit Limit
RegLvl	Regulatory Limit
MCL	Maximum Contamination Limit
MinCL	Minimum Compound Limit
RA	Reanalysis
RE	Reextraction
TIC	Tentatively Identified Compound
RT	Retention Time
CF	Calibration Factor
RF	Response Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Website: http://www.settek.com

Accreditation Program Analytes Report

WO#: **26061760**

07-Jul-26

Client: TEKLAB Inc,
State: IL
Project: 26060603
Program: Illinois EPA

Test Name	Matrix	Analyte	Status
Combined Radium (EPA903+904)	Non-Potable Water	Radium-226/Radium-228	N
Radium-226 (EPA 903.0)	Non-Potable Water	Radium-226	N
Radium-226 (EPA 903.0)	Non-Potable Water	Yield	N
Radium-228 (EPA 904.0)	Non-Potable Water	Radium-228	N
Radium-228 (EPA 904.0)	Non-Potable Water	Yield	N

Accreditation (Acc.) Status Key	
A: Accredited	N: Not Accredited
P: Provisional	U: Unavailable

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Website: http://www.settek.com

DATES REPORT

WO#: **26061760**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060603

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26061760-001A	26060603-001	6/18/2026 11:58:00 AM	Non-Potable Water	Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM
26061760-002A	26060603-002	6/18/2026 9:29:00 AM		Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM
26061760-003A	26060603-003	6/18/2026 11:00:00 AM		Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM
26061760-004A	26060603-004	6/18/2026 11:15:00 AM		Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM
26061760-005A	26060603-005	6/17/2026 10:16:00 AM		Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM
26061760-006A	26060603-006	6/18/2026 10:04:00 AM		Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM
26061760-007A	26060603-007	6/17/2026 10:15:00 AM		Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM
26061760-008A	26060603-008	6/17/2026 10:14:00 AM		Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM

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Website: http://www.settek.com

DATES REPORT

WO#: **26061760**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060603

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26061760-008A	26060603-008	6/17/2026 10:14:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM
26061760-009A	26060603-009	6/18/2026 10:02:00 AM		Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM
26061760-010A	26060603-010	6/18/2026 11:17:00 AM		Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM

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QC SUMMARY REPORT

WO#: **26061760**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060603 **BatchID:** **97614**

Sample ID: **26061760-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **26060603-001**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290117**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	0.560			0	0			0.6500	14.9		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance TECHNICAL GROUP

Alliance Technical Group - Akron
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26061760**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060603 **BatchID:** **97614**

Sample ID: **MB-97614**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-97614**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290105**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.76	1.00	5.000	0	55.2	50	130				QLR
Yield	0.860			0	0						

Sample ID: **LCSD-97614**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290106**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.83	1.00	5.000	0	76.6	50	130	2.760	32.5	20	R
Yield	0.950			0	0			0.8600	9.94		

Sample ID: **26061756-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290114**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26061760**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060603 **BatchID:** **97614**

Sample ID: **26061756-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290114**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Yield	0.870			0	0			0.8600	1.16		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26061760**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060603 **BatchID:** **97614**

Sample ID: **26061760-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240703**
Client ID: **26060603-001**	Batch ID: **97614**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/2/2026**	SeqNo: **6290437**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.630							0.6500	3.13	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26061760**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060603 **BatchID:** **97614**

Sample ID: **MB-97614**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240703**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/2/2026**	SeqNo: **6290424**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-97614**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240703**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/2/2026**	SeqNo: **6290425**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.35	1.00	5.000	0	127	70	130				

Sample ID: **LCSD-97614**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240703**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/2/2026**	SeqNo: **6290426**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.27	1.00	5.000	0	125	70	130	6.350	1.27	20	

Sample ID: **26061756-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240703**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/2/2026**	SeqNo: **6290434**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	0.930							0.9500	2.13	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Pg ___ of ___

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

26061760

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: Sampler: Client QC Level: 2

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc.
Batch QC and standard EDD are required. State of Sample Origin = IL

Project# 26060603

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com

Requested Due Date: Standard TAT Billing/PO: 41373 Phone: (618) 344-1004 x 1024

Temp: 21.3°C (21.2+0.1)

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Combined Radium			PH	cpm	PH	cpm	PH	cpm	PH	cpm
	26060603-001	6/18/26 1158	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	40	1	35	3	26	1	38
	26060603-002	6/18/26 929	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	42	2	30	3	32	2	40
	26060603-003	6/18/26 1100	☐	☑	☐	☐	☐	Groundwater	✓	✔			2	36	2	24	3	40	1	42
	26060603-004	6/18/26 1115	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	22	2	36	2	14		
	26060603-005	6/17/26 1016	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	24	2	24	2	12		
	26060603-006	6/18/26 1004	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	30	2	30	2	20		
	26060603-007	6/17/26 1015	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	27	2	36	2	40		
	26060603-008	6/17/26 1014	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	30	2	26	2	26		
	26060603-009	6/18/26 1002	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	23	2	24	1	32		
	26060603-010	6/18/26 1117	☐	☑	☐	☐	☐	Groundwater	✔	✔										
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

*Relinquished By	Date/Time	Received By	Date/Time
[signature]	6/18/26 1700	Paisa Yerra	6/22/26 10:45
			Fedex

Teklab maintains a strict policy of client confidentiality and as such does not provide client or sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SubCocRevB 1/12/2026

Alliance Technical Group - Akron
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Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **26061760** RcptNo: **1**

Logged by:	**Paige J. Yerick**	**6/22/2026 10:45:00 AM**	Paige Yerich
Completed By:	**Paige J. Yerick**	**6/23/2026 5:41:08 PM**	Paige Yerich
Reviewed By:	**Jennifer Woolf**	**6/23/2026 6:12:22 PM**	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑ NA ☐
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:
    007 = ph 3

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	21.3	Good	Not Present			

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	R101
Project Location:	Springfield IL	**Sample ID:**	001
W.O. Number (s):	26060603	**Date (s):**	6/18/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 70 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 6/18/26 11:36 AM

Static Water Level: 7.59 feet below TOC

Total Depth: 35.27 feet below TOC

Water Column: 27.68 feet

Purging Activities

Purged By: DC Purge Date: 6/18/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 27.68 ft. x 0.022 = 0.61 L x 3 Vol. = 1.83 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 2.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
11:36	0.0	91	purge start time						
11:37	0.1	↓	7.00	1,063.50	16.49	2.22	-31.90	4.89	7.92
11:40	0.4		7.10	1,105.80	15.64	1.07	-43.50	3.55	8.18
11:43	0.6		7.12	1,104.50	14.96	0.64	-52.10	8.45	8.39
11:46	0.9		7.12	1,104.40	15.01	0.54	-57.00	10.70	8.46
11:49	1.2		7.11	1,091.30	15.77	0.61	-59.10	13.16	8.68
11:52	1.5		7.12	1,109.90	15.12	0.58	-60.60	12.09	8.86
11:55	1.7		7.12	1,105.90	15.06	0.47	-62.70	14.66	9.02
11:58	2.0		7.12	1,108.00	15.34	0.47	-64.00	9.52	9.02

Sampling Activities

Sampled By: BG Sample Date/Time: 6/18/2026 11:58

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 7.12 pH 1,108.00 Spec. Cond. 15.34 Temp

Field Filtered: No Filter Type:

Water Level: 9.03 feet below TOC Drawdown: 1.44 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44622

Form Completed By: Brett Gillihan **Date:** 6/18/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G121
Project Location:	Springfield IL	**Sample ID:**	002
W.O. Number (s):	26060603	**Date (s):**	6/18/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 67 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing	X	
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 6/18/26 9:00 AM

Static Water Level: 27.78 feet below TOC

Total Depth: 58.56 feet below TOC

Water Column: 30.78 feet

Purging Activities

Purged By: PY Purge Date: 6/18/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.78 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 2.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:00	0.0	69	purge start time						
9:02	0.1	↓	7.18	1,537.50	16.57	3.82	288.20	16.46	27.78
9:05	0.3		6.91	1,518.60	16.32	1.87	302.20	14.60	27.91
9:08	0.6		6.85	1,524.20	16.28	1.67	306.30	10.03	27.97
9:11	0.8		6.84	1,518.20	16.25	1.50	291.40	8.85	27.97
9:14	1.0		6.85	1,515.50	16.08	1.31	258.00	8.81	27.99
9:17	1.2		6.71	1,533.70	15.87	1.24	-43.30	9.50	28.00
9:20	1.4		6.67	1,563.80	15.74	1.15	-81.70	8.98	28.00
9:23	1.6		6.66	1,580.50	15.78	1.05	-98.10	8.90	28.00
9:26	1.8		6.66	1,584.70	15.76	0.97	-106.50	8.68	28.01
9:29	2.0		6.66	1,588.00	15.65	0.92	-111.30	8.17	28.01

Sampling Activities

Sampled By: PY Sample Date/Time: 6/18/2026 9:29

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.66 pH 1,588.00 Spec. Cond. 15.65 Temp

Field Filtered: No Filter Type:

Water Level: 28.01 feet below TOC Drawdown: 0.23 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Allison Lampe **Date:** 6/18/2026

Field Data Sheet

Project Name: FGDS Landfill
Project Location: Springfield IL
W.O. Number (s): 26060603
Monitoring Point: G122
Sample ID: 003
Date (s): 6/18/2026

Field Team Members

Name: Allison Lampe — Affiliation: TekLab, Inc.
Name: Payton Yoch — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 67 °F — Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 6/18/26 10:00 AM
Static Water Level: 28.84 feet below TOC
Total Depth: 49.29 feet below TOC
Water Column: 20.45 feet

Purging Activities

Purged By: PY — Purge Date: 6/18/2026
Purge Method: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 20.45 ft. x 0.022 = 0.45 L x 3 Vol. = 1.35 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:00	0.0	83	purge start time						
10:03	0.2	↓	7.09	1,706.20	17.55	5.71	39.50	74.56	28.85
10:06	0.5		6.78	1,729.10	15.59	1.87	9.80	40.07	28.85
10:09	0.7		6.70	1,735.60	15.67	1.54	-4.90	36.90	28.85
10:12	1.0		6.68	1,735.40	15.65	1.38	-13.80	37.45	28.86
10:15	1.3		6.66	1,735.30	15.57	1.28	-20.90	39.70	28.86
10:18	1.5		7.01	11.70	15.93	9.71	-37.30	90.10	28.86
10:21	1.8		6.69	1,736.10	14.95	1.49	-40.00	42.64	28.87
10:24	2.0		6.65	1,739.20	14.99	1.10	-46.10	39.44	28.89
10:27	2.3		6.62	1,742.60	14.99	1.02	-54.60	37.77	28.89
10:30	2.5		6.61	1,748.20	15.03	0.97	-64.60	35.79	28.90
10:33	2.8		6.60	1,755.00	15.01	0.94	-74.40	33.27	28.89
10:36	3.0		6.58	1,757.80	15.04	0.91	-83.10	34.48	28.90
10:39	3.3		6.58	1,763.70	15.01	0.87	-89.80	31.85	28.90
10:42	3.5		6.57	1,766.20	15.10	0.85	-94.30	31.51	28.90
10:45	3.8		6.57	1,768.20	15.17	0.83	-98.10	27.93	28.90
10:48	4.0		6.57	1,770.00	15.14	0.81	-100.60	26.93	28.90
10:51	4.3		6.56	1,771.70	15.15	0.78	-102.50	22.43	28.90
10:54	4.5		6.56	1,770.00	15.33	0.77	-103.70	33.77	28.90
10:57	4.8		6.56	1,771.80	15.47	0.77	-104.90	22.81	28.89
11:00	5.0		6.56	1,772.50	15.88	0.76	-105.90	22.32	28.90

Sampling Activities

Sampled By: PY — Sample Date/Time: 6/18/2026 11:00
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.56 pH — 1,772.50 Spec. Cond. — 15.88 Temp
Field Filtered: No — Filter Type:
Water Level: 28.90 feet below TOC — Drawdown: 0.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Allison Lampe — **Date:** 6/18/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-2
Project Location:	Springfield IL	**Sample ID:**	004
W.O. Number (s):	26060603	**Date (s):**	6/18/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 68 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☐ None ☑ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing		X
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Yes				

Groundwater Level Measurements

Date/Time Measured: 6/18/26 10:30 AM

Static Water Level: 3.45 feet below TOC

Total Depth: 32.64 feet below TOC

Water Column: 29.19 feet

Purging Activities

Purged By: JC Purge Date: 6/18/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 29.19 ft. x 0.022 = 0.64 L x 3 Vol. = 1.92 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 10.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:30	0.0	222	purge start time						
10:33	0.7	↓	6.71	989.30	14.44	1.37	-22.70	67.36	3.45
10:36	1.3		6.64	1,005.60	14.87	1.10	-35.50	52.36	3.45
10:39	2.0		6.59	1,024.70	14.78	0.90	-44.60	47.89	3.45
10:42	2.7		6.57	1,060.40	14.77	0.77	-52.30	39.77	3.45
10:45	3.3		6.46	1,069.00	14.73	0.70	-60.30	36.47	3.45
10:48	4.0		6.39	1,071.50	14.68	0.65	-67.60	33.34	3.45
10:51	4.7		6.33	1,102.30	14.72	0.61	-73.20	35.31	3.45
10:54	5.3		6.33	1,117.30	14.76	0.57	-79.50	32.51	3.45
10:57	6.0		6.42	1,118.10	14.83	0.55	-85.10	28.37	3.45
11:00	6.7		6.34	1,115.60	14.86	0.51	-89.90	27.19	3.45
11:03	7.3		6.30	1,115.00	15.03	0.49	-93.90	22.41	3.45
11:06	8.0		6.29	1,115.20	15.14	0.49	-97.30	17.36	3.45
11:09	8.7		6.31	1,115.20	15.05	0.48	-100.20	13.63	3.45
11:12	9.3		6.28	1,112.40	15.03	0.47	-102.60	10.30	3.45
11:15	10.0		6.33	1,112.50	15.01	0.47	-104.70	8.92	3.45

Sampling Activities

Sampled By: JC Sample Date/Time: 6/18/2026 11:15

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.33 pH 1,112.50 Spec. Cond. 15.01 Temp

Field Filtered: No Filter Type:

Water Level: 3.45 feet below TOC Drawdown: 0.00 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp **Date:** 6/18/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	P07D
Project Location:	Springfield IL	**Sample ID:**	005
W.O. Number (s):	26060603	**Date (s):**	6/17/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 69 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 6/17/26 9:16 AM

Static Water Level: 3.49 feet below TOC

Total Depth: 32.54 feet below TOC

Water Column: 29.05 feet

Purging Activities

Purged By: DC Purge Date: 6/17/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 29.05 ft. x 0.022 = 0.64 L x 3 Vol. = 1.92 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:16	0.0	100	purge start time						
9:58	4.2	↓	6.68	1,287.80	16.25	0.57	-42.20	37.64	4.69
10:01	4.5		6.68	1,284.80	16.22	0.56	-44.60	32.34	4.69
10:04	4.8		6.68	1,282.00	16.08	0.51	-46.80	27.63	4.70
10:07	5.1		6.69	1,281.80	15.92	0.49	-49.10	27.57	4.70
10:10	5.4		6.69	1,277.30	15.91	0.50	-51.20	20.86	4.71
10:13	5.7		6.69	1,277.60	15.97	0.49	-53.10	21.32	4.70
10:16	6.0		6.70	1,277.00	15.07	0.40	-54.80	18.07	4.71

Sampling Activities

Sampled By: BG Sample Date/Time: 6/17/2026 10:16

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.70 pH 1,277.00 Spec. Cond. 15.07 Temp

Field Filtered: No Filter Type:

Water Level: 4.70 feet below TOC Drawdown: 1.21 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44622

Form Completed By: Brett Gillihan **Date:** 6/17/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-1
Project Location:	Springfield IL	**Sample ID:**	006
W.O. Number (s):	26060603	**Date (s):**	6/18/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 67 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 6/18/26 9:03 AM

Static Water Level: 14.56 feet below TOC

Total Depth: 54.81 feet below TOC

Water Column: 40.25 feet

Purging Activities

Purged By: DC Purge Date: 6/18/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 40.25 ft. x 0.022 = 0.89 L x 3 Vol. = 2.67 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Lt Yellow

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:03	0.0	98	purge start time						
9:10	0.7	↓	6.80	1,340.50	15.65	1.47	99.50	103.49	15.34
9:13	1.0		6.63	1,331.60	15.90	0.90	100.10	147.54	16.80
9:16	1.3		6.61	1,326.60	15.98	0.84	97.40	138.55	16.21
9:19	1.6		6.60	1,321.70	15.86	0.76	93.60	122.02	16.26
9:22	1.9		6.60	1,319.10	15.77	0.72	89.50	101.39	16.35
9:25	2.2		6.59	1,316.70	15.61	0.68	85.60	92.57	16.43
9:28	2.5		6.59	1,315.30	15.70	0.64	81.70	73.03	16.48
9:31	2.8		6.58	1,312.30	15.88	0.62	78.10	63.12	16.52
9:34	3.0		6.58	1,313.10	16.12	0.61	74.80	53.51	16.53
9:37	3.3		6.58	1,312.90	16.32	0.61	72.10	49.75	16.54
9:40	3.6		6.57	1,314.40	16.68	0.61	69.40	48.91	16.57
9:43	3.9		6.57	1,312.70	16.89	0.62	67.00	43.08	16.56
9:46	4.2		6.57	1,317.40	16.91	0.63	64.40	43.57	16.63
9:49	4.5		6.58	1,316.30	16.26	0.56	62.00	40.24	16.66
9:52	4.8		6.58	1,313.30	16.04	0.52	59.40	32.53	16.71
9:55	5.1		6.58	1,313.10	15.84	0.47	57.20	31.52	16.72
9:58	5.4		6.58	1,311.60	15.90	0.45	55.00	26.79	16.75
10:01	5.7		6.59	1,312.90	15.83	0.44	52.80	25.01	16.75
10:04	6.0		6.59	1,311.70	15.74	0.43	50.80	25.60	16.76

Sampling Activities

Sampled By: BG Sample Date/Time: 6/18/2026 10:04

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.59 pH 1,311.70 Spec. Cond. 15.74 Temp

Field Filtered: No Filter Type:

Water Level: 16.78 feet below TOC Drawdown: 2.22 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44622

Form Completed By: Brett Gillihan **Date:** 6/18/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G120
Project Location:	Springfield IL	**Sample ID:**	007
W.O. Number (s):	26060603	**Date (s):**	6/17/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 69 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 6/17/26 9:17 AM

Static Water Level: 16.91 feet below TOC

Total Depth: 50.37 feet below TOC

Water Column: 33.46 feet

Purging Activities

Purged By: PY Purge Date: 6/17/2026

Purge Method: Submersible Pump Well Diameter: 2"

Purge Volume Calculation (L): 33.46 ft. x 0.022 = 0.74 L x 3 Vol. = 2.22 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 10.00 L

Physical appearance of purge water: Cloudy Odor: Moderate Color: Black

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:10	0.0	167	purge start time						
10:00	8.3	↓	6.59	1,931.60	15.38	-0.02	-128.40	19.23	17.29
10:03	8.8		6.59	1,930.70	15.20	-0.03	-129.50	18.26	17.29
10:06	9.3		6.65	1,928.90	15.92	3.76	-117.00	20.57	17.30
10:09	9.8		6.59	1,919.30	15.88	0.27	-120.40	58.99	17.30
10:12	10.3		6.59	1,913.60	16.77	0.12	-122.80	65.25	17.30
10:15	10.8		6.61	1,914.80	16.45	0.07	-124.60	58.53	17.30

Sampling Activities

Sampled By: PY Sample Date/Time: 6/17/2026 10:15

Sample Method: Low Flow Sample Equipment: Submersible Pump

Sample Parameters: 6.61 pH 1,914.80 Spec. Cond. 16.45 Temp

Field Filtered: No Filter Type:

Water Level: 17.34 feet below TOC Drawdown: 0.43 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Allison Lampe **Date:** 6/17/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-4
Project Location:	Springfield IL	**Sample ID:**	008
W.O. Number (s):	26060603	**Date (s):**	6/17/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 69 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 6/17/26 9:09 AM

Static Water Level: 17.97 feet below TOC

Total Depth: 56.67 feet below TOC

Water Column: 38.70 feet

Purging Activities

Purged By: JC — Purge Date: 6/17/2026

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 38.7 ft. x 0.022 = 0.85 L x 3 Vol. = 2.55 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 11.00 L

Physical appearance of purge water: Cloudy — Odor: None — Color: lt brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:14	0.0	183	purge start time						
9:55	7.5	↓	6.52	1,365.40	17.12	1.00	69.70	32.04	18.23
9:58	8.1		6.45	1,369.30	17.27	0.99	61.80	33.08	18.26
10:02	8.8		6.42	1,371.90	17.20	0.94	46.80	34.96	18.31
10:05	9.4		6.42	1,370.30	17.01	0.91	33.20	36.01	18.34
10:08	9.9		6.42	1,367.20	16.68	0.89	20.10	38.41	18.36
10:11	10.5		6.32	1,361.00	16.98	0.87	7.20	38.66	18.39
10:14	11.0		6.44	1,357.70	17.24	0.92	-6.40	32.35	18.41

Sampling Activities

Sampled By: JC — Sample Date/Time: 6/17/2026 10:14

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.44 pH — 1,357.70 Spec. Cond. — 17.24 Temp

Field Filtered: No — Filter Type:

Water Level: 18.44 feet below TOC — Drawdown: 0.47 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp — **Date:** 6/17/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-5
Project Location:	Springfield IL	**Sample ID:**	009
W.O. Number (s):	26060603	**Date (s):**	6/18/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 66 °F — Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 6/18/26 8:56 AM

Static Water Level: 22.98 feet below TOC

Total Depth: 59.06 feet below TOC

Water Column: 36.08 feet

Purging Activities

Purged By: JC — Purge Date: 6/18/2026

Purge Method: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 36.08 ft. x 0.022 = 0.79 L x 3 Vol. = 2.37 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 12.00 L

Physical appearance of purge water: Slightly cloudy — Odor: Slight — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:00	0.0	194	purge start time						
9:02	0.4	↓	7.84	991.70	17.06	4.60	56.40	16.88	23.22
9:05	1.0		7.17	931.60	16.38	2.01	-14.00	56.82	23.22
9:08	1.5		6.84	924.30	16.09	1.42	-38.60	41.07	23.22
9:11	2.1		6.76	920.90	15.96	1.16	-54.90	33.24	23.22
9:14	2.7		6.72	919.60	15.76	1.01	-66.70	36.62	23.22
9:17	3.3		6.69	918.70	15.71	0.91	-75.50	19.75	23.22
9:20	3.9		6.66	919.00	15.68	0.85	-82.50	27.65	23.22
9:23	4.5		6.62	924.60	15.66	0.81	-88.00	36.02	23.22
9:26	5.0		6.59	932.60	15.62	0.77	-92.60	43.75	23.22
9:29	5.6		6.57	950.80	15.64	0.74	-96.70	58.15	23.22
9:32	6.2		6.58	969.90	15.64	0.70	-100.50	39.46	23.22
9:35	6.8		6.58	974.50	15.70	0.68	-104.30	50.83	23.22
9:38	7.4		7.15	974.20	15.79	0.66	-107.40	58.78	23.22
9:41	7.9		6.76	977.00	15.89	0.65	-109.70	71.32	23.22
9:44	8.5		6.66	976.50	15.91	0.65	-111.40	45.15	23.22
9:47	9.1		6.53	973.00	15.80	0.63	-112.80	66.48	23.22
9:50	9.7		6.52	967.60	15.71	0.61	-113.80	52.63	23.22
9:53	10.3		6.49	968.60	15.71	0.60	-114.50	65.32	23.22
9:56	10.8		6.49	965.20	15.80	0.59	-115.20	56.63	23.22
9:59	11.4		6.46	967.30	15.80	0.59	-115.80	57.52	23.22
10:02	12.0		6.43	964.60	15.74	0.59	-116.30	65.53	23.22

Sampling Activities

Sampled By: JC — Sample Date/Time: 6/18/2026 10:02

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.43 pH — 964.60 Spec. Cond. — 15.74 Temp

Field Filtered: No — Filter Type:

Water Level: 23.22 feet below TOC — Drawdown: 0.24 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 217941

Form Completed By: Justin Colp — **Date:** 6/18/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-6
Project Location:	Springfield IL	**Sample ID:**	010
W.O. Number (s):	26060603	**Date (s):**	6/18/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 69 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☐ None ☑ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 6/18/26 10:16 AM

Static Water Level: 1.86 feet below TOC

Total Depth: 33.44 feet below TOC

Water Column: 31.58 feet

Purging Activities

Purged By: DC Purge Date: 6/18/2026

Purge Method: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 31.58 ft. x 0.022 = 0.69 L x 3 Vol. = 2.07 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:16	0.0	98	purge start time						
10:17	0.1	↓	7.35	7.40	18.47	7.78	69.60	6.50	1.88
10:20	0.4		6.79	1,760.80	14.65	0.91	81.80	32.96	1.98
10:23	0.7		6.76	1,789.90	15.17	0.58	62.60	36.24	1.98
10:26	1.0		6.77	1,792.70	15.25	0.52	42.60	38.09	1.98
10:29	1.3		6.78	1,792.40	15.20	0.49	23.50	45.79	1.98
10:32	1.6		6.79	1,792.80	15.06	0.46	7.00	45.18	1.98
10:35	1.9		6.79	1,795.70	14.97	0.44	-6.30	42.36	1.98
10:38	2.2		6.80	1,795.40	14.96	0.41	-16.50	41.72	1.98
10:41	2.5		6.80	1,797.00	15.00	0.39	-24.40	42.61	1.98
10:44	2.8		6.80	1,796.90	14.99	0.37	-30.90	46.49	1.98
10:47	3.0		6.80	1,797.50	14.86	0.35	-36.30	38.28	1.98
10:50	3.3		6.80	1,796.20	15.00	0.35	-41.00	38.02	1.99
10:53	3.6		6.80	1,797.60	15.12	0.35	-45.20	34.91	1.98
10:56	3.9		6.80	1,803.70	15.17	0.33	-49.20	31.54	1.98
10:59	4.2		6.79	1,802.30	15.58	0.32	-53.00	34.65	1.98
11:02	4.5		6.78	1,802.20	16.30	0.36	-56.10	28.78	1.98
11:05	4.8		6.79	1,811.30	16.37	0.35	-59.10	30.16	1.98
11:08	5.1		6.79	1,815.90	16.42	0.36	-61.90	32.43	1.98
11:11	5.4		6.80	1,819.10	16.13	0.34	-64.30	37.48	1.98
11:14	5.7		6.81	1,808.70	16.07	0.33	-66.50	40.83	1.98
11:17	6.0		6.80	1,811.80	16.09	0.34	-68.20	38.29	1.98

Sampling Activities

Sampled By: BG Sample Date/Time: 6/18/2026 11:17

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.80 pH 1,811.80 Spec. Cond. 16.09 Temp

Field Filtered: No Filter Type:

Water Level: 1.98 feet below TOC Drawdown: 0.12 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 44622

Form Completed By: Brett Gillihan **Date:** 6/18/2026

Site Samping Event: FG DS Landfill
LIMS Workorder: 26060603
Technician(s): DC, JC, BG, AL, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 44622 Technician(s): Brett Gillihan Date: 6/17/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260305A	4	125.2	6/17/26 9:16
7.0 Buffer	WC260305B	7.00	-41.30	6/17/26 9:16
10.0 Buffer	WC260305C	10.00	-219.80	6/17/26 9:16
LCS/CCV (7.0 Buffer)	WC260305D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	6/17/26 9:16

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.7	6/17/26 9:16
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-BG	LCS	6/17/26 9:16	19.3	7.01	1,412	0.1		
CCV-1-BG	CCV	6/17/26 10:24	19.5	7.00	1,413	0.11		

Comments:

Field Meter ID: Pine 44622 Technician(s): Brett Gilllihan Date: 6/18/2027

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260305A	4.00	130.40	6/18/26 8:47
7.0 Buffer	WC260305B	7.00	-47.10	6/18/26 8:43
10.0 Buffer	WC260305C	10.00	-202.90	6/18/26 8:50
LCS/CCV (7.0 Buffer)	WC260305D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	6/18/26 8:54

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.11	6/18/26 8:57
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	6/18/26 8:59	19.5	7.01	1,412	0.08		
CCV-2-BG	CCV	6/18/26 12:08	21.2	7.00	1,414	0.1		

Comments:

Site Samping Event: FG DS Landfill
LIMS Workorder: 26060603
Technician(s): DC, JC, BG, AL, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 217941 Technician(s): justin colp Date: 6/17/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260305A	4	45.4	6/17/26 8:40
7.0 Buffer	WC260305B	7.00	-141.30	6/17/26 8:36
10.0 Buffer	WC260305C	10.00	-212.20	6/17/26 8:46
LCS/CCV (7.0 Buffer)	WC260305D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	6/17/26 8:51

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.77	6/17/26 8:55
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	6/17/26 9:05	20.9	7.01	1,408	1.71		
CCV-1-JC	CCV	6/17/26 10:20	21.1	6.97	1,387	2.02		

Comments:

Field Meter ID: Pine 217941 Technician(s): justin colp Date: 6/18/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260305A	4.00	-3.60	6/18/26 8:37
7.0 Buffer	WC260305B	7.00	-153.20	6/18/26 8:33
10.0 Buffer	WC260305C	10.00	-293.70	6/18/26 8:43
LCS/CCV (7.0 Buffer)	WC260305D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	6/18/26 8:49

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.01	6/18/26 8:50
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	6/18/26 8:50	25.3	6.98	1,409	0.97		
CCV-2-JC	CCV	6/18/26 11:31	25.2	6.95	1,448	0.99		

Comments:

Site Samping Event: FG DS Landfill
LIMS Workorder: 26060603
Technician(s): DC, JC, BG, AL, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 46864 Technician(s): A.Lampe Date: 6/17/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260305A	4	128.8	6/17/26 8:31
7.0 Buffer	WC260305B	7.00	-47.70	6/17/26 8:35
10.0 Buffer	WC260305C	10.00	-208.60	6/17/26 8:39
LCS/CCV (7.0 Buffer)	WC260305D	LCS/CCV (7.00		

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	6/17/26 8:44

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.34	6/17/26 8:49
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-AL	LCS	6/17/26 8:56	19.5	7.07	1,410	0.34		
CCV-1-AL	CCV	6/17/26 10:24	19.5	7.00	1,426	0.87		

Comments:

Field Meter ID: Pine 46864 Technician(s): A.Lampe Date: 6/18/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260305A	4.00	126.70	6/18/26 8:39
7.0 Buffer	WC260305B	7.00	-49.80	6/18/26 8:41
10.0 Buffer	WC260305C	10.00	-214.10	6/18/26 8:45
LCS/CCV (7.0 Buffer)	WC260305D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	6/18/26 8:47

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.73	6/18/26 8:51
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-AL	LCS	6/18/26 8:52	22.7	7.08	1,411	0.73		
CCV-2-AL	CCV	6/18/26 12:01	22.7	7.05	1,409	0.98		

Comments:

July 08, 2026

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100467
Kansas	E-10374
Kansas	E-10438
Louisiana	05002
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 26060602

Dear Eric Staley:

TEKLAB, INC received 1 sample on 6/18/2026 1:42:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26060602
Report Date: 08-Jul-26

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	8
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 26060602

Client Project: Ash Pond Monitoring Wells **Report Date:** 08-Jul-26

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
A	Total Coliform and/or E. Coli (Result) is absent
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
P	Total Coliform and/or E. Coli (Result) is present
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
S	Opinion for Colisure analysis is Satisfactory
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
T.O.P.	Top of Pump
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)
U	Opinion for Colisure analysis is Unsatisfactory

Client: City Water, Light & Power
Work Order: 26060602

Client Project: Ash Pond Monitoring Wells
Report Date: 08-Jul-26

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26060602
Report Date: 08-Jul-26

Cooler Receipt Temp: 18.7 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville

Address 120 United Drive
Collinsville, IL 62234-7433
Phone (618) 344-1004
Fax
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 120 United Drive
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Client Project: Ash Pond Monitoring Wells

Work Order: 26060602

Report Date: 08-Jul-26

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100467	NELAP	1/31/2027	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2027	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2027	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2026	Collinsville
Arkansas	ADEQ	88-0966		3/14/2027	Collinsville
Illinois	IDPH	17584		5/31/2027	Collinsville
Iowa	IDNR	430		6/1/2028	Collinsville
Kansas	KDHE	E-92716		1/31/2027	Collinsville
Kentucky	KWLCP	KY98050		12/31/2026	Collinsville
Kentucky	KWLCP	KY98006		12/31/2026	Collinsville
Kentucky	UST	0073		1/31/2027	Collinsville
Louisiana	LDEQ	05003		6/30/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville

Client: City Water, Light & Power
Work Order: 26060602
Client Project: Ash Pond Monitoring Wells
Report Date: 08-Jul-26
Lab ID: 26060602-001
Client Sample ID: AP17
Matrix: GROUNDWATER
Collection Date: 06/18/2026 11:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.30**	ft	1	06/18/2026 11:54	R386232
Depth to water	*	-5.00		**25.64**	ft	1	06/18/2026 11:54	R386232
Depth to water from measuring point	*	0		**27.95**	ft	1	06/18/2026 11:54	R386232
Elevation of groundwater surface	*	0		**527.66**	ft	1	06/18/2026 11:54	R386232
Measuring Point Elevation	*	0		**555.61**	ft	1	06/18/2026 11:54	R386232
Measuring Point Height Above Land Surface	*	0		**2.31**	ft	1	06/18/2026 11:54	R386232
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.2**	NTU	1	06/18/2026 11:54	R386232
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**68.6**	°F	1	06/18/2026 11:54	R386232
SW-846 9040B								
pH, Field	*	1.00		**6.83**		1	06/18/2026 11:54	R386232
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**945**	µS/cm	1	06/18/2026 11:54	R386232
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**512**	mg/L	1	06/22/2026 9:17	R386246
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	06/20/2026 10:20	R386144
Chloride	NELAP	5.00		**16.7**	mg/L	10	06/20/2026 10:20	R386144
Sulfate	NELAP	10.0		**ND**	mg/L	10	06/20/2026 10:20	R386144
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**218**	µg/L	1	06/19/2026 16:59	258454
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	06/19/2026 16:59	258454
Boron	NELAP	20.0		**160**	µg/L	1	06/19/2026 16:59	258454
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	06/19/2026 16:59	258454
Calcium	NELAP	0.100		**103**	mg/L	1	06/19/2026 16:59	258454
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	06/19/2026 16:59	258454
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	06/19/2026 16:59	258454
Lead	NELAP	7.5		**< 7.5**	µg/L	1	06/19/2026 16:59	258454
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	06/19/2026 16:59	258454
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	06/24/2026 13:00	258454
Arsenic	NELAP	1.0		**6.2**	µg/L	5	06/24/2026 13:00	258454
Lithium	*	3.0		**7.9**	µg/L	5	06/27/2026 16:02	258454
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	06/24/2026 13:00	258454
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	06/24/2026 13:00	258454
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	06/24/2026 11:36	258478
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Combined 226/228 Uncertainty	*	0		**0.340**	+/-	1	07/02/2026 10:05	R387012
Radium-226	*	1.00		**ND**	pci/L	1	07/02/2026 10:05	R387012
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	07/02/2026 10:05	R387012
Radium-228	*	1.00		**ND**	pci/L	1	07/01/2026 12:46	R387012
Radium-228 Uncertainty	*	0		**0.270**	+/-	1	07/01/2026 12:46	R387012

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26060602
Report Date: 08-Jul-26

Carrier: Justin Colp

Received By: LEH

Completed by: Laura E Henson
On: 18-Jun-26

Reviewed by: Amber Dilallo
On: 18-Jun-26

Pages to follow: Chain of custody 1 Extra pages included 16

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	18.7
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐		
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐			

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #104524. -NO/ lhenson - 6/18/2026 2:08:05 PM

Drop off Location
☐ Downers Grove, IL ☐ Lenexa, KS
☐ Springfield, IL ☒ Collinsville, IL

CHAIN OF CUSTODY

pg. 1 of 1 Work order # 26060602

TEKLAB, INC. 120 United Drive - Collinsville, IL 62234 - Phone: (618) 344-1004

Client	City Water, Light & Power 1993		
Address	3100 Stevenson Drive		
	Springfield, IL 62712		
Contact	Eric Staley	**Phone**	(217) 757-8610
E-Mail	eric.staley@cwlp.com	**Fax**	(217) 757-8615

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 18.7 °C LTG# 9

Preserved in: ☐ LAB ☒ FIELD

FOR LAB USE ONLY

Lab Notes: pH 10452 No 6/18/26

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☐ No

Are these samples known to be hazardous? If yes, include details of the hazard. ☐ Yes ☐ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section. ☐ Yes ☐ No

Client Comments Report QC LVL:___

*elevations, pH, conductivity, temperature

**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Mo Hg

Project Name/Number: Ash Pond Monitoring Wells

Sample Collector's Name: Justin Colp

Results Requested (call for PFAS TAT and surcharges)
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Date ___ ☐ 3 Day (50% Surcharge)

Billing/PO#

Lab Use Only	Sample Identification	Date/Time Sampled	# and Type of Containers: UNP	HNO3	MATRIX: Groundwater	INDICATE ANALYSIS REQUESTED: Cl SO4 TDS F (T)	Field parameters*	Field Turbidity	Metals (T)**	Ra-226/228 Combined
26060602-001	AP17	6-18 1154	1	4	X	X	X	X	X	X

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	6-18-26 1342		6/18/26 1342

The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions.

BottleOrder 111911

F5A59781A2
92B2B6B585
FC027EF3C5
B0B0DF01D5
F5DE06D695

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield IL
W.O. Number (s): 26060602
Monitoring Point: AP17
Sample ID: 001
Date (s): 6/18/2026

Field Team Members

Name: Allison Lampe Affiliation: TekLab, Inc.
Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 67 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 6/18/26 11:36 AM
Static Water Level: 27.95 feet below TOC
Total Depth: 60.31 feet below TOC
Water Column: 32.36 feet

Purging Activities

Purged By: PY Purge Date: 6/18/2026
Purge Method: Peristaltic Pump Well Diameter: 2"
Purge Volume Calculation (L): 32.36 ft. x 0.022 = 0.71 L x 3 Vol. = 2.13 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 2.50 L
Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
11:35	0.0	131	purge start time						
11:39	0.5	↓	7.08	969.90	17.66	1.84	1.90	11.22	28.55
11:42	0.9		6.90	942.50	18.05	1.48	-16.70	8.40	28.60
11:45	1.3		6.83	935.60	18.64	1.43	-26.10	7.65	28.61
11:48	1.7		6.82	938.30	19.13	1.44	-29.90	7.28	28.61
11:51	2.1		6.82	940.90	19.63	1.44	-30.70	7.17	28.61
11:54	2.5		6.83	945.20	20.32	1.42	-30.10	7.18	28.61

Sampling Activities

Sampled By: PY Sample Date/Time: 6/18/2026 11:54
Sample Method: Low Flow Sample Equipment: Peristaltic Pump
Sample Parameters: 6.83 pH 945.20 Spec. Cond. 20.32 Temp
Field Filtered: No Filter Type:
Water Level: 28.72 feet below TOC Drawdown: 0.77 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 46864

Form Completed By: Allison Lampe Date: 6/18/2026

Site Samping Event: Ash Pond Mon Wells
LIMS Workorder: 26060602
Technician(s): DC, JC, BG, AL, PY

Field Calibration Log(s)
CWLP- 2Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 46864 Technician(s): A.Lampe Date: 6/18/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260305A	4.00	126.70	6/18/26 8:39
7.0 Buffer	WC260305B	7.00	-49.80	6/18/26 8:41
10.0 Buffer	WC260305C	10.00	-214.10	6/18/26 8:45
LCS/CCV (7.0 Buffer)	WC260305D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	110375	1412	6/18/26 8:47

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.73	6/18/26 8:51
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time
		131		6/23/26 10:28

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-AL	LCS	6/18/26 8:52	22.7	7.08	1,411	0.73		
CCV-2-AL	CCV	6/18/26 12:01	22.7	7.05	1,409	0.98		

Comments:

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
Website: http://www.settek.com

July 07, 2026

Shelly Hennessy
TEKLAB Inc,
120 United Drive
Collinsville, IL 62234
TEL:
FAX:

RE: 26060602

Dear Shelly Hennessy:

Order No.: 26061762

Alliance Technical Group - Akron received 1 sample(s) on 6/22/2026 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0828, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **26061762**
Date: **7/7/2026**

CLIENT: TEKLAB Inc,
Project: 26060602

WorkOrder Narrative:
26061762: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence QC Notes:
LCS/LCSD-97614 Radium-228_DW(904.0): LCS/LCSD demonstrate high RPD. Both results are within acceptable criteria individually.

Original

Alliance Technical Group - Akron
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Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

Workorder Sample Summary

WO#: **26061762**

07-Jul-26

CLIENT: TEKLAB Inc,
Project: 26060602

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
26061762-001	26060602-001		6/18/2026 11:54:00 AM	6/22/2026 10:45:00 AM	Non-Potable Water

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26061762**

Date Reported: **7/7/2026**

CLIENT: TEKLAB Inc,

Collection Date: 6/18/2026 11:54:00 AM

Project: 26060602

Lab ID: 26061762-001

Matrix: NON-POTABLE WATER

Client Sample ID: 26060602-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.340	1	7/2/2026 10:05:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0700	1	7/2/2026 10:05:00 AM
Yield	1.00					1	7/2/2026 10:05:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.270	1	7/1/2026 12:46:00 PM
Yield	1.00					1	7/1/2026 12:46:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Qualifiers and Acronyms

WO#: **26061762**
Date: **7/7/2026**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
D	Manual integration in which peak was deleted.
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	A deviation from the method was performed; Please refer to the Case Narrative for additional information.

Acroynms

ND	Not Detected
QC	Quality Control
MB	Method Blank
LCS	Laboratory Control Sample
LCS	Laboratory Control Sample Duplicate
QCS	Quality Control Sample
DUP	Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Different
ICV	Initial Calibration Verification
ICB	Initial Calibration Blank
CCV	Continuing Calibration Verification
CCB	Continuing Calibration Blank
RLC	Reporting Limit Check
DF	Dilution Factor

RL	Reporting Limit
MDL	Method Detection Limit
LOD	Level of Detection
LOQ	Level of Quantitation
PQL	Practical Quantitation Limit
CRQL	Contract Required Quantitation Limit
PL	Permit Limit
RegLvl	Regulatory Limit
MCL	Maximum Contamination Limit
MinCL	Minimum Compound Limit
RA	Reanalysis
RE	Reextraction
TIC	Tentatively Identified Compound
RT	Retention Time
CF	Calibration Factor
RF	Response Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Accreditation Program Analytes Report

WO#: **26061762**

07-Jul-26

Client: TEKLAB Inc,
State: IL
Project: 26060602
Program: Illinois EPA

Test Name	Matrix	Analyte	Status
Combined Radium (EPA903+904)	Non-Potable Water	Radium-226/Radium-228	N
Radium-226 (EPA 903.0)	Non-Potable Water	Radium-226	N
Radium-226 (EPA 903.0)	Non-Potable Water	Yield	N
Radium-228 (EPA 904.0)	Non-Potable Water	Radium-228	N
Radium-228 (EPA 904.0)	Non-Potable Water	Yield	N

Accreditation (Acc.) Status Key	
A: Accredited	N: Not Accredited
P: Provisional	U: Unavailable

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DATES REPORT

WO#: **26061762**

07-Jul-26

Client: TEKLAB Inc,

Project: 26060602

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26061762-001A	26060602-001	6/18/2026 11:54:00 AM	Non-Potable Water	Combined Radium (EPA903+904)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-226 (EPA 903.0)		6/25/2026 11:42:49 AM	7/2/2026 10:05:00 AM
				Radium-228 (EPA 904.0)		6/25/2026 11:42:49 AM	7/1/2026 12:46:00 PM

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26061762**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060602

BatchID: **97614**

Sample ID: **26061760-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290117**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	0.560			0	0			0.6500	14.9		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26061762**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060602 **BatchID:** **97614**

Sample ID: **MB-97614**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-97614**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290105**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.76	1.00	5.000	0	55.2	50	130				QLR
Yield	0.860			0	0						

Sample ID: **LCSD-97614**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290106**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.83	1.00	5.000	0	76.6	50	130	2.760	32.5	20	R
Yield	0.950			0	0			0.8600	9.94		

Sample ID: **26061756-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290114**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26061762**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060602 **BatchID:** **97614**

Sample ID: **26061756-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240693**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E904.0**	**E903-904**	Analysis Date: **7/1/2026**	SeqNo: **6290114**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Yield	0.870			0	0			0.8600	1.16		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26061762**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060602 **BatchID:** **97614**

Sample ID: **26061760-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240703**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/2/2026**	SeqNo: **6290437**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.630							0.6500	3.13	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26061762**

07-Jul-26

Client: TEKLAB Inc,
Project: 26060602 **BatchID:** **97614**

Sample ID: **MB-97614**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240703**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/2/2026**	SeqNo: **6290424**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-97614**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240703**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/2/2026**	SeqNo: **6290425**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.35	1.00	5.000	0	127	70	130				

Sample ID: **LCSD-97614**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240703**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/2/2026**	SeqNo: **6290426**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.27	1.00	5.000	0	125	70	130	6.350	1.27	20	

Sample ID: **26061756-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/25/2026**	RunNo: **240703**
Client ID: **BatchQC**	Batch ID: **97614**	TestNo: **E903.0**	**E903-904**	Analysis Date: **7/2/2026**	SeqNo: **6290434**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	0.930							0.9500	2.13	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Pg ___ of ___

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

26061762

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: Sampler: Client QC Level: 2

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc.
Batch QC and standard EDD are required. State of Sample Origin = IL

Project# 26060602

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 41372 Phone: (618) 344-1004 x 1024

Temp: 21.3°C (21.2 / 21.1)

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Combined Radium			PH	CPH								
	26060602-001	6/18/26 1154	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	20								
			☐	☐	☐	☐	☐	Aqueous					2	34								
			☐	☐	☐	☐	☐	Aqueous					2	28								
			☐	☐	☐	☐	☐	Aqueous														
			☐	☐	☐	☐	☐	Aqueous														
			☐	☐	☐	☐	☐	Aqueous														
			☐	☐	☐	☐	☐	Aqueous														
			☐	☐	☐	☐	☐	Aqueous														
			☐	☐	☐	☐	☐	Aqueous														
			☐	☐	☐	☐	☐	Aqueous														
			☐	☐	☐	☐	☐	Aqueous														

*Relinquished By	Date/Time	Received By	Date/Time
	6/18/26 1700	Parson Gorich	6/22/26 10:45

Teklab maintains a strict policy of client confidentiality and as such does not provide client or sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **26061762** RcptNo: **1**

Logged by:	**Paige J. Yerick**	**6/22/2026 10:45:00 AM**	Paige Yerich
Completed By:	**Paige J. Yerick**	**6/23/2026 5:43:55 PM**	Paige Yerich
Reviewed By:	**Jennifer Woolf**	**6/23/2026 6:16:13 PM**	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑ NA ☐
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	21.3	Good	Not Present			

September 01, 2026

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100467
Kansas	E-10374
Kansas	E-10438
Louisiana	05002
Oklahoma	9978

RE: Ash Pond Monitoring Wells **WorkOrder:** 26071205

Dear Eric Staley:

TEKLAB, INC received 23 samples on 7/27/2026 3:20:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26071205
Report Date: 01-Sep-26

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	53
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
A	Total Coliform and/or E. Coli (Result) is absent
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
P	Total Coliform and/or E. Coli (Result) is present
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
S	Opinion for Colisure analysis is Satisfactory
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
T.O.P.	Top of Pump
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)
U	Opinion for Colisure analysis is Unsatisfactory

Client: City Water, Light & Power

Work Order: 26071205

Client Project: Ash Pond Monitoring Wells

Report Date: 01-Sep-26

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26071205
Report Date: 01-Sep-26

Cooler Receipt Temp: 24.1 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 120 United Drive
Collinsville, IL 62234-7433
Phone (618) 344-1004
Fax
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 26071205

Client Project: Ash Pond Monitoring Wells

Report Date: 01-Sep-26

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100467	NELAP	1/31/2027	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2027	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2027	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2026	Collinsville
Arkansas	ADEQ	88-0966		3/14/2027	Collinsville
Illinois	IDPH	17584		5/31/2027	Collinsville
Iowa	IDNR	430		6/1/2028	Collinsville
Kansas	KDHE	E-92716		1/31/2027	Collinsville
Kentucky	KWLCP	KY98050		12/31/2026	Collinsville
Kentucky	KWLCP	KY98006		12/31/2026	Collinsville
Kentucky	UST	0073		1/31/2027	Collinsville
Louisiana	LDEQ	05003		6/30/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-001 **Client Sample ID:** RW-3

Matrix: GROUNDWATER **Collection Date:** 07/24/2026 10:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.49**	ft	1	07/24/2026 10:38	R388347
Depth to water	*	-5.00		**7.06**	ft	1	07/24/2026 10:38	R388347
Depth to water from measuring point	*	0		**9.76**	ft	1	07/24/2026 10:38	R388347
Elevation of groundwater surface	*	0		**529.74**	ft	1	07/24/2026 10:38	R388347
Measuring Point Elevation	*	0		**539.50**	ft	1	07/24/2026 10:38	R388347
Measuring Point Height Above Land Surface	*	0		**2.70**	ft	1	07/24/2026 10:38	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.9**	NTU	1	07/24/2026 10:38	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.4**	°F	1	07/24/2026 10:38	R388347
SW-846 9040B								
pH, Field	*	1.00		**7.04**		1	07/24/2026 10:38	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**801**	µmhos/cm @25C	1	07/24/2026 10:38	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**470**	mg/L	1	07/27/2026 9:12	R388126
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 17:32	R388053
Chloride	NELAP	5.00		**26.8**	mg/L	10	07/27/2026 17:32	R388053
Sulfate	NELAP	10.0		**ND**	mg/L	10	07/27/2026 17:32	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5	B	**168**	µg/L	1	07/27/2026 14:06	260103
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/27/2026 14:06	260103
Boron	NELAP	20.0		**155**	µg/L	1	07/27/2026 14:06	260103
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/27/2026 14:06	260103
Calcium	NELAP	0.100		**69.1**	mg/L	1	07/27/2026 14:06	260103
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:06	260103
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:06	260103
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/27/2026 14:06	260103
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/27/2026 14:06	260103
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 20:09	260103
Arsenic	NELAP	1.0		**119**	µg/L	5	08/01/2026 0:52	260103
Lithium	*	3.0		**8.6**	µg/L	5	07/29/2026 20:09	260103
Selenium	NELAP	1.0		**2.2**	µg/L	5	07/29/2026 20:09	260103
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 20:09	260103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/28/2026 9:49	260142
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.620**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-001
Client Sample ID: RW-3
Matrix: GROUNDWATER
Collection Date: 07/24/2026 10:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.570**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-002 **Client Sample ID:** AP-1

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 11:13

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**504.29**	ft	1	07/27/2026 11:13	R388347
Depth to water	*	-5.00		**8.32**	ft	1	07/27/2026 11:13	R388347
Depth to water from measuring point	*	0		**10.59**	ft	1	07/27/2026 11:13	R388347
Elevation of groundwater surface	*	0		**524.78**	ft	1	07/27/2026 11:13	R388347
Measuring Point Elevation	*	0		**535.37**	ft	1	07/27/2026 11:13	R388347
Measuring Point Height Above Land Surface	*	0		**2.27**	ft	1	07/27/2026 11:13	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.2**	NTU	1	07/27/2026 11:13	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.5**	°F	1	07/27/2026 11:13	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.68**		1	07/27/2026 11:13	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1870**	µmhos/cm @25C	1	07/27/2026 11:13	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1720**	mg/L	1	07/28/2026 9:21	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 15:53	R388408
Chloride	NELAP	5.00		**52.3**	mg/L	10	08/03/2026 15:53	R388408
Sulfate	NELAP	10.0		**941**	mg/L	10	08/03/2026 15:53	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**236**	µg/L	1	07/28/2026 16:22	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:22	260196
Boron	NELAP	200		**22400**	µg/L	10	07/29/2026 11:30	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:22	260196
Calcium	NELAP	0.100		**250**	mg/L	1	07/28/2026 16:22	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:22	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:22	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:22	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:22	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/24/2026 23:28	262347
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 19:29	260196
Lithium	*	3.0		**8.2**	µg/L	5	08/05/2026 16:57	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 19:29	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 19:29	260196
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 11:52	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.740**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**1.31**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-002
Client Sample ID: AP-1
Matrix: GROUNDWATER
Collection Date: 07/27/2026 11:13

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.680**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-003 **Client Sample ID:** AP-2

Matrix: GROUNDWATER **Collection Date:** 07/24/2026 10:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.77**	ft	1	07/24/2026 10:43	R388347
Depth to water	*	-5.00		**5.19**	ft	1	07/24/2026 10:43	R388347
Depth to water from measuring point	*	0		**7.69**	ft	1	07/24/2026 10:43	R388347
Elevation of groundwater surface	*	0		**528.41**	ft	1	07/24/2026 10:43	R388347
Measuring Point Elevation	*	0		**536.10**	ft	1	07/24/2026 10:43	R388347
Measuring Point Height Above Land Surface	*	0		**2.50**	ft	1	07/24/2026 10:43	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.6**	NTU	1	07/24/2026 10:43	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.2**	°F	1	07/24/2026 10:43	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.31**		1	07/24/2026 10:43	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1390**	µmhos/cm @25C	1	07/24/2026 10:43	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1200**	mg/L	1	07/27/2026 9:12	R388126
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 18:10	R388053
Chloride	NELAP	5.00		**34.9**	mg/L	10	07/27/2026 18:10	R388053
Sulfate	NELAP	10.0		**420**	mg/L	10	07/27/2026 18:10	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5	B	**66.3**	µg/L	1	07/27/2026 14:08	260103
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/27/2026 14:08	260103
Boron	NELAP	20.0		**3540**	µg/L	1	07/27/2026 14:08	260103
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/27/2026 14:08	260103
Calcium	NELAP	0.100		**195**	mg/L	1	07/27/2026 14:08	260103
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:08	260103
Cobalt	NELAP	5.0		**5.5**	µg/L	1	07/27/2026 14:08	260103
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/27/2026 14:08	260103
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/27/2026 14:08	260103
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 20:13	260103
Arsenic	NELAP	1.0		**1.2**	µg/L	5	08/01/2026 0:57	260103
Lithium	*	3.0		**7.8**	µg/L	5	07/29/2026 20:13	260103
Selenium	NELAP	1.0		**1.1**	µg/L	5	07/29/2026 20:13	260103
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 20:13	260103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/28/2026 9:51	260142
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.550**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-003
Client Sample ID: AP-2
Matrix: GROUNDWATER
Collection Date: 07/24/2026 10:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.500**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-004 **Client Sample ID:** AP-3

Matrix: GROUNDWATER **Collection Date:** 07/24/2026 10:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.45**	ft	1	07/24/2026 10:08	R388347
Depth to water	*	-5.00		**7.06**	ft	1	07/24/2026 10:08	R388347
Depth to water from measuring point	*	0		**9.61**	ft	1	07/24/2026 10:08	R388347
Elevation of groundwater surface	*	0		**525.64**	ft	1	07/24/2026 10:08	R388347
Measuring Point Elevation	*	0		**535.25**	ft	1	07/24/2026 10:08	R388347
Measuring Point Height Above Land Surface	*	0		**2.55**	ft	1	07/24/2026 10:08	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.0**	NTU	1	07/24/2026 10:08	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.9**	°F	1	07/24/2026 10:08	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.34**		1	07/24/2026 10:08	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1400**	µmhos/cm @25C	1	07/24/2026 10:08	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1270**	mg/L	1	07/27/2026 9:12	R388126
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 18:23	R388053
Chloride	NELAP	5.00		**62.9**	mg/L	10	07/27/2026 18:23	R388053
Sulfate	NELAP	10.0		**572**	mg/L	10	07/27/2026 18:23	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5	B	**107**	µg/L	1	07/27/2026 14:09	260103
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/27/2026 14:09	260103
Boron	NELAP	20.0		**16000**	µg/L	1	07/27/2026 14:09	260103
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/27/2026 14:09	260103
Calcium	NELAP	0.100		**184**	mg/L	1	07/27/2026 14:09	260103
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:09	260103
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:09	260103
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/27/2026 14:09	260103
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/27/2026 14:09	260103
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 20:17	260103
Arsenic	NELAP	1.0		**13.6**	µg/L	5	08/01/2026 1:01	260103
Lithium	*	3.0		**7.3**	µg/L	5	07/29/2026 20:17	260103
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 20:17	260103
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 20:17	260103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/28/2026 9:57	260142
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.610**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-004
Client Sample ID: AP-3
Matrix: GROUNDWATER
Collection Date: 07/24/2026 10:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.570**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-005 **Client Sample ID:** AP-4

Matrix: GROUNDWATER **Collection Date:** 07/24/2026 11:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.19**	ft	1	07/24/2026 11:35	R388347
Depth to water	*	-5.00		**6.97**	ft	1	07/24/2026 11:35	R388347
Depth to water from measuring point	*	0		**10.11**	ft	1	07/24/2026 11:35	R388347
Elevation of groundwater surface	*	0		**545.49**	ft	1	07/24/2026 11:35	R388347
Measuring Point Elevation	*	0		**555.60**	ft	1	07/24/2026 11:35	R388347
Measuring Point Height Above Land Surface	*	0		**3.14**	ft	1	07/24/2026 11:35	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**27**	NTU	1	07/24/2026 11:35	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.1**	°F	1	07/24/2026 11:35	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.86**		1	07/24/2026 11:35	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**455**	µmhos/cm @25C	1	07/24/2026 11:35	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**564**	mg/L	1	07/27/2026 9:13	R388126
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 18:35	R388053
Chloride	NELAP	5.00		**12.4**	mg/L	10	07/27/2026 18:35	R388053
Sulfate	NELAP	10.0		**ND**	mg/L	10	07/27/2026 18:35	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5	B	**380**	µg/L	1	07/27/2026 14:11	260103
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/27/2026 14:11	260103
Boron	NELAP	20.0		**84.4**	µg/L	1	07/27/2026 14:11	260103
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/27/2026 14:11	260103
Calcium	NELAP	0.100		**119**	mg/L	1	07/27/2026 14:11	260103
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:11	260103
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:11	260103
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/27/2026 14:11	260103
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/27/2026 14:11	260103
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 20:21	260103
Arsenic	NELAP	1.0		**22.0**	µg/L	5	08/01/2026 1:05	260103
Lithium	*	3.0		**8.6**	µg/L	5	07/29/2026 20:21	260103
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 20:21	260103
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 20:21	260103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/28/2026 9:59	260142
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.620**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-005
Client Sample ID: AP-4
Matrix: GROUNDWATER
Collection Date: 07/24/2026 11:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.560**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-006 **Client Sample ID:** AP-5

Matrix: GROUNDWATER **Collection Date:** 07/24/2026 10:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**552.63**	ft	1	07/24/2026 10:19	R388347
Depth to water	*	-5.00		**11.66**	ft	1	07/24/2026 10:19	R388347
Depth to water from measuring point	*	0		**13.96**	ft	1	07/24/2026 10:19	R388347
Elevation of groundwater surface	*	0		**569.94**	ft	1	07/24/2026 10:19	R388347
Measuring Point Elevation	*	0		**583.90**	ft	1	07/24/2026 10:19	R388347
Measuring Point Height Above Land Surface	*	0		**2.30**	ft	1	07/24/2026 10:19	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**29**	NTU	1	07/24/2026 10:19	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.1**	°F	1	07/24/2026 10:19	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.75**		1	07/24/2026 10:19	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**449**	µmhos/cm @25C	1	07/24/2026 10:19	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**558**	mg/L	1	07/27/2026 9:22	R388126
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 18:48	R388053
Chloride	NELAP	5.00		**7.16**	mg/L	10	07/27/2026 18:48	R388053
Sulfate	NELAP	10.0		**74.4**	mg/L	10	07/27/2026 18:48	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5	B	**57.8**	µg/L	1	07/27/2026 14:13	260103
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/27/2026 14:13	260103
Boron	NELAP	20.0		**36.3**	µg/L	1	07/27/2026 14:13	260103
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/27/2026 14:13	260103
Calcium	NELAP	0.100		**108**	mg/L	1	07/27/2026 14:13	260103
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:13	260103
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:13	260103
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/27/2026 14:13	260103
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/27/2026 14:13	260103
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 20:26	260103
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	08/01/2026 1:30	260103
Lithium	*	3.0		**6.0**	µg/L	5	07/29/2026 20:26	260103
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 20:26	260103
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 20:26	260103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/28/2026 10:07	260142
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.530**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.030**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-006
Client Sample ID: AP-5
Matrix: GROUNDWATER
Collection Date: 07/24/2026 10:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.500**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-007 **Client Sample ID:** AP-6

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 11:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**498.20**	ft	1	07/27/2026 11:47	R388347
Depth to water	*	-5.00		**5.85**	ft	1	07/27/2026 11:47	R388347
Depth to water from measuring point	*	0		**8.27**	ft	1	07/27/2026 11:47	R388347
Elevation of groundwater surface	*	0		**529.55**	ft	1	07/27/2026 11:47	R388347
Measuring Point Elevation	*	0		**537.82**	ft	1	07/27/2026 11:47	R388347
Measuring Point Height Above Land Surface	*	0		**2.42**	ft	1	07/27/2026 11:47	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.1**	NTU	1	07/27/2026 11:47	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.5**	°F	1	07/27/2026 11:47	R388347
SW-846 9040B								
pH, Field	*	1.00		**7.23**		1	07/27/2026 11:47	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**718**	µmhos/cm @25C	1	07/27/2026 11:47	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**446**	mg/L	1	07/28/2026 9:21	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**0.63**	mg/L	10	08/03/2026 16:06	R388408
Chloride	NELAP	5.00		**37.8**	mg/L	10	08/03/2026 16:06	R388408
Sulfate	NELAP	10.0		**ND**	mg/L	10	08/03/2026 16:06	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**166**	µg/L	1	07/28/2026 16:22	260196
Beryllium	NELAP	0.5		**0.6**	µg/L	1	07/28/2026 16:22	260196
Boron	NELAP	20.0		**276**	µg/L	1	07/28/2026 16:22	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:22	260196
Calcium	NELAP	0.100		**70.4**	mg/L	1	07/28/2026 16:22	260196
Chromium	NELAP	5.0		**12.0**	µg/L	1	07/28/2026 16:22	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:22	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:22	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:22	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/24/2026 23:32	262347
Arsenic	NELAP	1.0		**10.4**	µg/L	5	08/03/2026 19:33	260196
Lithium	*	3.0		**5.5**	µg/L	5	08/03/2026 19:33	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 19:33	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 19:33	260196
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 11:54	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.610**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-007
Client Sample ID: AP-6
Matrix: GROUNDWATER
Collection Date: 07/27/2026 11:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.560**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-008 **Client Sample ID:** AP-7

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 13:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**496.50**	ft	1	07/27/2026 13:43	R388347
Depth to water	*	-5.00		**8.90**	ft	1	07/27/2026 13:43	R388347
Depth to water from measuring point	*	0		**11.56**	ft	1	07/27/2026 13:43	R388347
Elevation of groundwater surface	*	0		**527.46**	ft	1	07/27/2026 13:43	R388347
Measuring Point Elevation	*	0		**539.02**	ft	1	07/27/2026 13:43	R388347
Measuring Point Height Above Land Surface	*	0		**2.66**	ft	1	07/27/2026 13:43	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.1**	NTU	1	07/27/2026 13:43	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.8**	°F	1	07/27/2026 13:43	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.97**		1	07/27/2026 13:43	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**366**	µmhos/cm @25C	1	07/27/2026 13:43	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**418**	mg/L	1	07/28/2026 9:38	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 16:18	R388408
Chloride	NELAP	5.00		**43.5**	mg/L	10	08/03/2026 16:18	R388408
Sulfate	NELAP	10.0		**22.9**	mg/L	10	08/03/2026 16:18	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**134**	µg/L	1	07/28/2026 16:23	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:23	260196
Boron	NELAP	20.0		**276**	µg/L	1	07/28/2026 16:23	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:23	260196
Calcium	NELAP	0.100		**65.3**	mg/L	1	07/28/2026 16:23	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:23	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:23	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:23	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:23	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**1.0**	µg/L	5	08/24/2026 23:37	262347
Arsenic	NELAP	1.0		**52.1**	µg/L	5	08/03/2026 19:37	260196
Lithium	*	3.0		**6.7**	µg/L	5	08/05/2026 17:05	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 19:37	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 19:37	260196
MBLK has detectable levels above the RL for Sb. Results may be biased high by the detectable levels in the MBLK.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 12:00	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.890**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**1.46**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-008
Client Sample ID: AP-7
Matrix: GROUNDWATER
Collection Date: 07/27/2026 13:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.830**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-009 **Client Sample ID:** AP-8

Matrix: GROUNDWATER **Collection Date:** 07/22/2026 12:01

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.60**	ft	1	07/22/2026 12:01	R388347
Depth to water	*	-5.00		**2.53**	ft	1	07/22/2026 12:01	R388347
Depth to water from measuring point	*	0		**5.43**	ft	1	07/22/2026 12:01	R388347
Elevation of groundwater surface	*	0		**531.77**	ft	1	07/22/2026 12:01	R388347
Measuring Point Elevation	*	0		**537.20**	ft	1	07/22/2026 12:01	R388347
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	07/22/2026 12:01	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.1**	NTU	1	07/22/2026 12:01	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.7**	°F	1	07/22/2026 12:01	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.95**		1	07/22/2026 12:01	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1020**	µmhos/cm @25C	1	07/22/2026 12:01	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**576**	mg/L	1	07/23/2026 13:35	R387989
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 16:31	R388408
Chloride	NELAP	5.00		**24.1**	mg/L	10	08/03/2026 16:31	R388408
Sulfate	NELAP	10.0		**ND**	mg/L	10	08/03/2026 16:31	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**409**	µg/L	1	07/28/2026 18:09	260025
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 18:09	260025
Boron	NELAP	20.0		**87.0**	µg/L	1	07/28/2026 18:09	260025
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/29/2026 16:12	260025
Calcium	NELAP	1.00		**102**	mg/L	10	07/30/2026 20:33	260025
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 18:09	260025
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 18:09	260025
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 18:09	260025
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 18:09	260025
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 21:54	260025
Arsenic	NELAP	1.0		**46.2**	µg/L	5	07/31/2026 23:53	260025
Lithium	*	3.0		**7.4**	µg/L	5	07/30/2026 17:27	260025
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 21:54	260025
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 21:54	260025
LCS recovered outside upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/23/2026 10:21	260026
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.860**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.100**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**1.33**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-009
Client Sample ID: AP-8
Matrix: GROUNDWATER
Collection Date: 07/22/2026 12:01

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.760**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-010 **Client Sample ID:** AP-9

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 11:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.70**	ft	1	07/27/2026 11:00	R388347
Depth to water	*	-5.00		**10.03**	ft	1	07/27/2026 11:00	R388347
Depth to water from measuring point	*	0		**13.13**	ft	1	07/27/2026 11:00	R388347
Elevation of groundwater surface	*	0		**527.17**	ft	1	07/27/2026 11:00	R388347
Measuring Point Elevation	*	0		**540.30**	ft	1	07/27/2026 11:00	R388347
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	07/27/2026 11:00	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**48**	NTU	1	07/27/2026 11:00	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.2**	°F	1	07/27/2026 11:00	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.68**		1	07/27/2026 11:00	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**621**	µmhos/cm @25C	1	07/27/2026 11:00	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**616**	mg/L	1	07/28/2026 9:38	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 16:44	R388408
Chloride	NELAP	5.00		**31.5**	mg/L	10	08/03/2026 16:44	R388408
Sulfate	NELAP	10.0		**21.2**	mg/L	10	08/03/2026 16:44	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**411**	µg/L	1	07/28/2026 16:24	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:24	260196
Boron	NELAP	20.0		**100**	µg/L	1	07/28/2026 16:24	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:24	260196
Calcium	NELAP	0.100		**110**	mg/L	1	07/28/2026 16:24	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:24	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:24	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:24	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:24	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/24/2026 23:41	262347
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 19:40	260196
Lithium	*	3.0		**5.0**	µg/L	5	08/05/2026 17:32	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 19:40	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 19:40	260196
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 12:02	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.660**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-010
Client Sample ID: AP-9
Matrix: GROUNDWATER
Collection Date: 07/27/2026 11:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.610**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-011 **Client Sample ID:** AP10

Matrix: GROUNDWATER **Collection Date:** 07/23/2026 13:36

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**499.43**	ft	1	07/23/2026 13:36	R388347
Depth to water	*	-5.00		**1.03**	ft	1	07/23/2026 13:36	R388347
Depth to water from measuring point	*	0		**4.13**	ft	1	07/23/2026 13:36	R388347
Elevation of groundwater surface	*	0		**533.37**	ft	1	07/23/2026 13:36	R388347
Measuring Point Elevation	*	0		**537.50**	ft	1	07/23/2026 13:36	R388347
Measuring Point Height Above Land Surface	*	0		**3.10**	ft	1	07/23/2026 13:36	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.6**	NTU	1	07/23/2026 13:36	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.4**	°F	1	07/23/2026 13:36	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.82**		1	07/23/2026 13:36	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1310**	µmhos/cm @25C	1	07/23/2026 13:36	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**838**	mg/L	1	07/24/2026 10:33	R388043
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 19:01	R388053
Chloride	NELAP	5.00		**25.3**	mg/L	10	07/27/2026 19:01	R388053
Sulfate	NELAP	10.0		**91.3**	mg/L	10	07/27/2026 19:01	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5	B	**569**	µg/L	1	07/27/2026 16:54	260103
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/27/2026 16:54	260103
Boron	NELAP	20.0		**3540**	µg/L	1	07/27/2026 16:54	260103
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/27/2026 16:54	260103
Calcium	NELAP	0.100	S	**132**	mg/L	1	07/27/2026 16:54	260103
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 16:54	260103
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 16:54	260103
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/27/2026 16:54	260103
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/27/2026 16:54	260103
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 20:30	260103
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	08/01/2026 1:34	260103
Lithium	*	3.0		**9.7**	µg/L	5	07/29/2026 20:30	260103
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 20:30	260103
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 20:30	260103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/27/2026 9:24	260102
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.720**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	08/13/2026 7:39	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-011
Client Sample ID: AP10
Matrix: GROUNDWATER
Collection Date: 07/23/2026 13:36

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	1.00		**1.10**	pci/L	1	08/12/2026 13:15	R389888
Radium-228 Uncertainty	*	0		**0.650**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-012 **Client Sample ID:** AP11

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 12:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.15**	ft	1	07/27/2026 12:15	R388347
Depth to water	*	-5.00		**12.22**	ft	1	07/27/2026 12:15	R388347
Depth to water from measuring point	*	0		**15.02**	ft	1	07/27/2026 12:15	R388347
Elevation of groundwater surface	*	0		**523.08**	ft	1	07/27/2026 12:15	R388347
Measuring Point Elevation	*	0		**538.10**	ft	1	07/27/2026 12:15	R388347
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	07/27/2026 12:15	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.9**	NTU	1	07/27/2026 12:15	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.7**	°F	1	07/27/2026 12:15	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.51**		1	07/27/2026 12:15	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1280**	µmhos/cm @25C	1	07/27/2026 12:15	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**892**	mg/L	1	07/28/2026 9:39	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 17:22	R388408
Chloride	NELAP	5.00		**146**	mg/L	10	08/03/2026 17:22	R388408
Sulfate	NELAP	10.0		**91.1**	mg/L	10	08/03/2026 17:22	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**153**	µg/L	1	07/28/2026 16:25	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:25	260196
Boron	NELAP	20.0		**277**	µg/L	1	07/28/2026 16:25	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:25	260196
Calcium	NELAP	0.100		**151**	mg/L	1	07/28/2026 16:25	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:25	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:25	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:25	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:25	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/25/2026 0:22	262347
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 19:44	260196
Lithium	*	3.0		**3.4**	µg/L	5	08/05/2026 17:36	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 19:44	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 19:44	260196
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 12:04	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.510**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.030**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-012
Client Sample ID: AP11
Matrix: GROUNDWATER
Collection Date: 07/27/2026 12:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.480**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-013 **Client Sample ID:** AP12

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 10:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**510.30**	ft	1	07/27/2026 10:50	R388347
Depth to water	*	-5.00		**14.64**	ft	1	07/27/2026 10:50	R388347
Depth to water from measuring point	*	0		**17.54**	ft	1	07/27/2026 10:50	R388347
Elevation of groundwater surface	*	0		**523.16**	ft	1	07/27/2026 10:50	R388347
Measuring Point Elevation	*	0		**540.70**	ft	1	07/27/2026 10:50	R388347
Measuring Point Height Above Land Surface	*	0		**2.90**	ft	1	07/27/2026 10:50	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.5**	NTU	1	07/27/2026 10:50	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**64.9**	°F	1	07/27/2026 10:50	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.45**		1	07/27/2026 10:50	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1510**	µmhos/cm @25C	1	07/27/2026 10:50	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1120**	mg/L	1	07/28/2026 9:39	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 18:12	R388408
Chloride	NELAP	5.00		**113**	mg/L	10	08/03/2026 18:12	R388408
Sulfate	NELAP	10.0		**378**	mg/L	10	08/03/2026 18:12	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**75.5**	µg/L	1	07/28/2026 16:25	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:25	260196
Boron	NELAP	20.0		**24.8**	µg/L	1	07/28/2026 16:25	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:25	260196
Calcium	NELAP	0.100		**181**	mg/L	1	07/28/2026 16:25	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:25	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:25	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:25	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:25	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/25/2026 0:39	262347
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 19:48	260196
Lithium	*	3.0		**4.2**	µg/L	5	08/05/2026 17:40	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 19:48	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 19:48	260196
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 12:06	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.620**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-013
Client Sample ID: AP12
Matrix: GROUNDWATER
Collection Date: 07/27/2026 10:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.570**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-014 **Client Sample ID:** AP13

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 10:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.00**	ft	1	07/27/2026 10:15	R388347
Depth to water	*	-5.00		**13.95**	ft	1	07/27/2026 10:15	R388347
Depth to water from measuring point	*	0		**17.35**	ft	1	07/27/2026 10:15	R388347
Elevation of groundwater surface	*	0		**524.65**	ft	1	07/27/2026 10:15	R388347
Measuring Point Elevation	*	0		**542.00**	ft	1	07/27/2026 10:15	R388347
Measuring Point Height Above Land Surface	*	0		**3.40**	ft	1	07/27/2026 10:15	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.9**	NTU	1	07/27/2026 10:15	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**65.5**	°F	1	07/27/2026 10:15	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.63**		1	07/27/2026 10:15	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**861**	µmhos/cm @25C	1	07/27/2026 10:15	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**556**	mg/L	1	07/28/2026 9:51	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 18:25	R388408
Chloride	NELAP	5.00		**27.4**	mg/L	10	08/03/2026 18:25	R388408
Sulfate	NELAP	10.0		**114**	mg/L	10	08/03/2026 18:25	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**126**	µg/L	1	07/28/2026 16:30	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:30	260196
Boron	NELAP	20.0		**38.5**	µg/L	1	07/28/2026 16:30	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:30	260196
Calcium	NELAP	0.100		**108**	mg/L	1	07/28/2026 16:30	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:30	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:30	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:30	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:30	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/25/2026 0:43	262347
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 20:15	260196
Lithium	*	3.0		**8.6**	µg/L	5	08/05/2026 17:44	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 20:15	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 20:15	260196
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 12:13	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.580**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-014
Client Sample ID: AP13
Matrix: GROUNDWATER
Collection Date: 07/27/2026 10:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.540**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-015 **Client Sample ID:** AP14

Matrix: GROUNDWATER **Collection Date:** 07/23/2026 9:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**508.40**	ft	1	07/23/2026 9:53	R388347
Depth to water	*	-5.00		**-0.60**	ft	1	07/23/2026 9:53	R388347
Depth to water from measuring point	*	0		**2.20**	ft	1	07/23/2026 9:53	R388347
Elevation of groundwater surface	*	0		**537.40**	ft	1	07/23/2026 9:53	R388347
Measuring Point Elevation	*	0		**539.60**	ft	1	07/23/2026 9:53	R388347
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	07/23/2026 9:53	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.6**	NTU	1	07/23/2026 9:53	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.8**	°F	1	07/23/2026 9:53	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.87**		1	07/23/2026 9:53	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2220**	µmhos/cm @25C	1	07/23/2026 9:53	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**2050**	mg/L	1	07/24/2026 10:33	R388043
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 19:13	R388053
Chloride	NELAP	5.00		**126**	mg/L	10	07/27/2026 19:13	R388053
Sulfate	NELAP	10.0		**1070**	mg/L	10	07/27/2026 19:13	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5	B	**46.2**	µg/L	1	07/27/2026 14:14	260103
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/27/2026 14:14	260103
Boron	NELAP	200		**23600**	µg/L	10	07/29/2026 20:03	260103
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/27/2026 14:14	260103
Calcium	NELAP	0.100		**295**	mg/L	1	07/27/2026 14:14	260103
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:14	260103
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:14	260103
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/27/2026 14:14	260103
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/27/2026 14:14	260103
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 21:07	260103
Arsenic	NELAP	1.0		**1.4**	µg/L	5	08/01/2026 1:51	260103
Lithium	*	3.0		**9.9**	µg/L	5	07/29/2026 21:07	260103
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 21:07	260103
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 21:07	260103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/27/2026 9:26	260102
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.670**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-015
Client Sample ID: AP14
Matrix: GROUNDWATER
Collection Date: 07/23/2026 9:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.630**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-016 **Client Sample ID:** T-01

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 12:57

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**512.70**	ft	1	07/27/2026 12:57	R388347
Depth to water	*	-5.00		**13.12**	ft	1	07/27/2026 12:57	R388347
Depth to water from measuring point	*	0		**13.45**	ft	1	07/27/2026 12:57	R388347
Elevation of groundwater surface	*	0		**522.20**	ft	1	07/27/2026 12:57	R388347
Measuring Point Elevation	*	0		**535.65**	ft	1	07/27/2026 12:57	R388347
Measuring Point Height Above Land Surface	*	0		**0.33**	ft	1	07/27/2026 12:57	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.0**	NTU	1	07/27/2026 12:57	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.9**	°F	1	07/27/2026 12:57	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.51**		1	07/27/2026 12:57	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1420**	µmhos/cm @25C	1	07/27/2026 12:57	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**934**	mg/L	1	07/28/2026 9:51	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 18:38	R388408
Chloride	NELAP	5.00		**212**	mg/L	10	08/03/2026 18:38	R388408
Sulfate	NELAP	10.0		**123**	mg/L	10	08/03/2026 18:38	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**73.8**	µg/L	1	07/28/2026 16:30	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:30	260196
Boron	NELAP	20.0		**212**	µg/L	1	07/28/2026 16:30	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:30	260196
Calcium	NELAP	0.100		**134**	mg/L	1	07/28/2026 16:30	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:30	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:30	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:30	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:30	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/25/2026 0:47	262347
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 20:19	260196
Lithium	*	3.0		**11.4**	µg/L	5	08/05/2026 17:47	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 20:19	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 20:19	260196
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 12:15	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.530**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	08/13/2026 7:39	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-016
Client Sample ID: T-01
Matrix: GROUNDWATER
Collection Date: 07/27/2026 12:57

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.480**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-017 **Client Sample ID:** T-02

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 11:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**515.18**	ft	1	07/27/2026 11:30	R388347
Depth to water	*	-5.00		**22.29**	ft	1	07/27/2026 11:30	R388347
Depth to water from measuring point	*	0		**24.69**	ft	1	07/27/2026 11:30	R388347
Elevation of groundwater surface	*	0		**524.93**	ft	1	07/27/2026 11:30	R388347
Measuring Point Elevation	*	0		**549.62**	ft	1	07/27/2026 11:30	R388347
Measuring Point Height Above Land Surface	*	0		**2.40**	ft	1	07/27/2026 11:30	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.2**	NTU	1	07/27/2026 11:30	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**66.2**	°F	1	07/27/2026 11:30	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.51**		1	07/27/2026 11:30	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2190**	µmhos/cm @25C	1	07/27/2026 11:30	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1420**	mg/L	1	07/28/2026 9:51	R388191
Stable weight could not be achieved after multiple cycles of drying, cooling, and weighing. Final weight is reported.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 18:50	R388408
Chloride	NELAP	5.00		**556**	mg/L	10	08/03/2026 18:50	R388408
Sulfate	NELAP	10.0		**145**	mg/L	10	08/03/2026 18:50	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**240**	µg/L	1	07/28/2026 16:31	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:31	260196
Boron	NELAP	20.0		**52.1**	µg/L	1	07/28/2026 16:31	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:31	260196
Calcium	NELAP	0.100		**251**	mg/L	1	07/28/2026 16:31	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:31	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:31	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:31	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:31	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/25/2026 0:51	262347
Arsenic	NELAP	1.0		**4.0**	µg/L	5	08/03/2026 20:23	260196
Lithium	*	3.0		**31.0**	µg/L	5	08/05/2026 17:51	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 20:23	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 20:23	260196
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 12:17	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**2.23**	pci/L	1	08/13/2026 7:39	R389888
Combined 226/228 Uncertainty	*	0		**0.840**	+/-	1	08/13/2026 7:39	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389888
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	08/13/2026 7:39	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-017
Client Sample ID: T-02
Matrix: GROUNDWATER
Collection Date: 07/27/2026 11:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	1.00		**2.23**	pci/L	1	08/12/2026 13:15	R389888
Radium-228 Uncertainty	*	0		**0.780**	+/-	1	08/12/2026 13:15	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-018 **Client Sample ID:** T-04

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 12:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**521.52**	ft	1	07/27/2026 12:24	R388347
Depth to water	*	-5.00		**14.37**	ft	1	07/27/2026 12:24	R388347
Depth to water from measuring point	*	0		**16.75**	ft	1	07/27/2026 12:24	R388347
Elevation of groundwater surface	*	0		**532.19**	ft	1	07/27/2026 12:24	R388347
Measuring Point Elevation	*	0		**548.94**	ft	1	07/27/2026 12:24	R388347
Measuring Point Height Above Land Surface	*	0		**2.38**	ft	1	07/27/2026 12:24	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**57**	NTU	1	07/27/2026 12:24	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**67.4**	°F	1	07/27/2026 12:24	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.49**		1	07/27/2026 12:24	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**369**	µmhos/cm @25C	1	07/27/2026 12:24	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**348**	mg/L	1	07/28/2026 9:51	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 19:03	R388408
Chloride	NELAP	5.00		**ND**	mg/L	10	08/03/2026 19:03	R388408
Sulfate	NELAP	10.0		**89.5**	mg/L	10	08/03/2026 19:03	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**42.0**	µg/L	1	07/28/2026 16:32	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:32	260196
Boron	NELAP	20.0		**55.9**	µg/L	1	07/28/2026 16:32	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:32	260196
Calcium	NELAP	0.100		**69.4**	mg/L	1	07/28/2026 16:32	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:32	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:32	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:32	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:32	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/25/2026 0:55	262347
Arsenic	NELAP	1.0		**3.9**	µg/L	5	08/03/2026 20:27	260196
Lithium	*	3.0		**10.0**	µg/L	5	08/03/2026 20:27	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 20:27	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 20:27	260196
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 12:19	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/15/2026 9:57	R389888
Combined 226/228 Uncertainty	*	0		**0.690**	+/-	1	08/15/2026 9:57	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/15/2026 9:57	R389888
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	08/15/2026 9:57	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/14/2026 13:33	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-018
Client Sample ID: T-04
Matrix: GROUNDWATER
Collection Date: 07/27/2026 12:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.640**	+/-	1	08/14/2026 13:33	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-019 **Client Sample ID:** T-05

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 13:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**518.32**	ft	1	07/27/2026 13:06	R388347
Depth to water	*	-5.00		**5.54**	ft	1	07/27/2026 13:06	R388347
Depth to water from measuring point	*	0		**8.05**	ft	1	07/27/2026 13:06	R388347
Elevation of groundwater surface	*	0		**532.61**	ft	1	07/27/2026 13:06	R388347
Measuring Point Elevation	*	0		**540.66**	ft	1	07/27/2026 13:06	R388347
Measuring Point Height Above Land Surface	*	0		**2.51**	ft	1	07/27/2026 13:06	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.7**	NTU	1	07/27/2026 13:06	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**74.6**	°F	1	07/27/2026 13:06	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.61**		1	07/27/2026 13:06	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**360**	µmhos/cm @25C	1	07/27/2026 13:06	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**342**	mg/L	1	07/28/2026 9:51	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 19:16	R388408
Chloride	NELAP	5.00		**ND**	mg/L	10	08/03/2026 19:16	R388408
Sulfate	NELAP	10.0		**35.4**	mg/L	10	08/03/2026 19:16	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**55.5**	µg/L	1	07/28/2026 16:33	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:33	260196
Boron	NELAP	20.0		**90.6**	µg/L	1	07/28/2026 16:33	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:33	260196
Calcium	NELAP	0.100		**65.2**	mg/L	1	07/28/2026 16:33	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:33	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:33	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:33	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:33	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/25/2026 1:03	262347
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 20:31	260196
Lithium	*	3.0		**6.4**	µg/L	5	08/05/2026 17:59	260196
Selenium	NELAP	1.0		**1.4**	µg/L	5	08/03/2026 20:31	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 20:31	260196
Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 12:21	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/15/2026 9:57	R389888
Combined 226/228 Uncertainty	*	0		**0.850**	+/-	1	08/15/2026 9:57	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/15/2026 9:57	R389888
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	08/15/2026 9:57	R389888
Radium-228	*	1.00		**1.87**	pci/L	1	08/14/2026 13:33	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-019
Client Sample ID: T-05
Matrix: GROUNDWATER
Collection Date: 07/27/2026 13:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.810**	+/-	1	08/14/2026 13:33	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-020 **Client Sample ID:** T-06

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 13:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**514.66**	ft	1	07/27/2026 13:28	R388347
Depth to water	*	-5.00		**6.35**	ft	1	07/27/2026 13:28	R388347
Depth to water from measuring point	*	0		**8.71**	ft	1	07/27/2026 13:28	R388347
Elevation of groundwater surface	*	0		**529.61**	ft	1	07/27/2026 13:28	R388347
Measuring Point Elevation	*	0		**538.32**	ft	1	07/27/2026 13:28	R388347
Measuring Point Height Above Land Surface	*	0		**2.36**	ft	1	07/27/2026 13:28	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.7**	NTU	1	07/27/2026 13:28	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**72.5**	°F	1	07/27/2026 13:28	R388347
SW-846 9040B								
pH, Field	*	1.00		**7.17**		1	07/27/2026 13:28	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**736**	µmhos/cm @25C	1	07/27/2026 13:28	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**404**	mg/L	1	07/28/2026 9:51	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 19:28	R388408
Chloride	NELAP	5.00		**8.75**	mg/L	10	08/03/2026 19:28	R388408
Sulfate	NELAP	10.0		**ND**	mg/L	10	08/03/2026 19:28	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**102**	µg/L	1	07/28/2026 16:33	260196
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 16:33	260196
Boron	NELAP	20.0		**37.2**	µg/L	1	07/28/2026 16:33	260196
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/28/2026 16:33	260196
Calcium	NELAP	0.100		**90.2**	mg/L	1	07/28/2026 16:33	260196
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:33	260196
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 16:33	260196
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 16:33	260196
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 16:33	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0	B	**< 1.0**	µg/L	5	08/25/2026 1:08	262347
Arsenic	NELAP	1.0		**11.5**	µg/L	5	08/03/2026 20:35	260196
Lithium	*	3.0		**3.9**	µg/L	5	08/05/2026 18:03	260196
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	08/03/2026 20:35	260196
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	08/03/2026 20:35	260196
MBLK surrogates are outside of control limits.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/30/2026 12:23	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/25/2026 9:44	R389888
Combined 226/228 Uncertainty	*	0		**0.770**	+/-	1	08/25/2026 9:44	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/15/2026 9:57	R389888
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	08/15/2026 9:57	R389888
Radium-228	*	1.00		**ND**	pci/L	1	08/24/2026 14:05	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-020
Client Sample ID: T-06
Matrix: GROUNDWATER
Collection Date: 07/27/2026 13:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.720**	+/-	1	08/24/2026 14:05	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-021 **Client Sample ID:** AW-1

Matrix: GROUNDWATER **Collection Date:** 07/22/2026 10:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**500.79**	ft	1	07/22/2026 10:05	R388347
Depth to water	*	-5.00		**10.53**	ft	1	07/22/2026 10:05	R388347
Depth to water from measuring point	*	0		**13.28**	ft	1	07/22/2026 10:05	R388347
Elevation of groundwater surface	*	0		**542.32**	ft	1	07/22/2026 10:05	R388347
Measuring Point Elevation	*	0		**555.60**	ft	1	07/22/2026 10:05	R388347
Measuring Point Height Above Land Surface	*	0		**2.75**	ft	1	07/22/2026 10:05	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**33**	NTU	1	07/22/2026 10:05	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.1**	°F	1	07/22/2026 10:05	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.63**		1	07/22/2026 10:05	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1570**	µmhos/cm @25C	1	07/22/2026 10:05	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1250**	mg/L	1	07/23/2026 13:35	R387989
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 19:41	R388408
Chloride	NELAP	5.00		**39.1**	mg/L	10	08/03/2026 19:41	R388408
Sulfate	NELAP	10.0		**424**	mg/L	10	08/03/2026 19:41	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**120**	µg/L	1	07/28/2026 18:11	260025
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 18:11	260025
Boron	NELAP	20.0		**9570**	µg/L	1	07/28/2026 18:11	260025
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/29/2026 16:14	260025
Calcium	NELAP	1.00		**208**	mg/L	10	07/30/2026 20:34	260025
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 18:11	260025
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 18:11	260025
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 18:11	260025
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 18:11	260025
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 22:44	260025
Arsenic	NELAP	1.0		**81.3**	µg/L	5	08/01/2026 0:19	260025
Lithium	*	3.0		**9.9**	µg/L	5	07/30/2026 17:54	260025
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 22:44	260025
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 22:44	260025
LCS recovered outside upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/23/2026 10:23	260026
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/15/2026 9:57	R389888
Combined 226/228 Uncertainty	*	0		**0.750**	+/-	1	08/15/2026 9:57	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/15/2026 9:57	R389888
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	08/15/2026 9:57	R389888
Radium-228	*	1.00		**1.12**	pci/L	1	08/14/2026 13:33	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-021
Client Sample ID: AW-1
Matrix: GROUNDWATER
Collection Date: 07/22/2026 10:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.700**	+/-	1	08/14/2026 13:33	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-022 **Client Sample ID:** G120

Matrix: GROUNDWATER **Collection Date:** 07/22/2026 10:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**502.73**	ft	1	07/22/2026 10:50	R388347
Depth to water	*	-5.00		**15.38**	ft	1	07/22/2026 10:50	R388347
Depth to water from measuring point	*	0		**15.38**	ft	1	07/22/2026 10:50	R388347
Elevation of groundwater surface	*	0		**537.72**	ft	1	07/22/2026 10:50	R388347
Measuring Point Elevation	*	0		**553.10**	ft	1	07/22/2026 10:50	R388347
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	07/22/2026 10:50	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**62**	NTU	1	07/22/2026 10:50	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.9**	°F	1	07/22/2026 10:50	R388347
SW-846 9040B								
pH, Field	*	1.00		**6.85**		1	07/22/2026 10:50	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1840**	µmhos/cm @25C	1	07/22/2026 10:50	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1550**	mg/L	1	07/23/2026 13:51	R387989
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 19:54	R388408
Chloride	NELAP	5.00		**37.9**	mg/L	10	08/03/2026 19:54	R388408
Sulfate	NELAP	10.0		**605**	mg/L	10	08/03/2026 19:54	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5		**103**	µg/L	1	07/28/2026 18:12	260025
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/28/2026 18:12	260025
Boron	NELAP	20.0		**7930**	µg/L	1	07/28/2026 18:12	260025
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/29/2026 16:15	260025
Calcium	NELAP	1.00		**265**	mg/L	10	07/30/2026 20:36	260025
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 18:12	260025
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/28/2026 18:12	260025
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/28/2026 18:12	260025
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/28/2026 18:12	260025
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 22:49	260025
Arsenic	NELAP	1.0		**< 1.0**	µg/L	5	08/01/2026 0:23	260025
Lithium	*	3.0		**7.1**	µg/L	5	07/30/2026 17:58	260025
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	07/30/2026 17:58	260025
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 22:49	260025
LCS recovered outside upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/23/2026 10:25	260026
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**3.10**	pci/L	1	08/15/2026 9:57	R389888
Combined 226/228 Uncertainty	*	0		**1.16**	+/-	1	08/15/2026 9:57	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/15/2026 9:57	R389888
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	08/15/2026 9:57	R389888
Radium-228	*	1.00		**3.10**	pci/L	1	08/14/2026 13:33	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-022
Client Sample ID: G120
Matrix: GROUNDWATER
Collection Date: 07/22/2026 10:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**1.12**	+/-	1	08/14/2026 13:33	R389888

Client: City Water, Light & Power **Work Order:** 26071205

Client Project: Ash Pond Monitoring Wells **Report Date:** 01-Sep-26

Lab ID: 26071205-023 **Client Sample ID:** AP17

Matrix: GROUNDWATER **Collection Date:** 07/23/2026 12:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.31**	ft	1	07/23/2026 12:12	R388347
Depth to water	*	-5.00		**25.27**	ft	1	07/23/2026 12:12	R388347
Depth to water from measuring point	*	0		**27.58**	ft	1	07/23/2026 12:12	R388347
Elevation of groundwater surface	*	0		**528.04**	ft	1	07/23/2026 12:12	R388347
Measuring Point Elevation	*	0		**555.62**	ft	1	07/23/2026 12:12	R388347
Measuring Point Height Above Land Surface	*	0		**2.31**	ft	1	07/23/2026 12:12	R388347
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.1**	NTU	1	07/23/2026 12:12	R388347
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**63.5**	°F	1	07/23/2026 12:12	R388347
SW-846 9040B								
pH, Field	*	1.00		**7.07**		1	07/23/2026 12:12	R388347
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**917**	µmhos/cm @25C	1	07/23/2026 12:12	R388347
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**534**	mg/L	1	07/24/2026 10:33	R388043
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 19:26	R388053
Chloride	NELAP	5.00		**15.9**	mg/L	10	07/27/2026 19:26	R388053
Sulfate	NELAP	10.0		**ND**	mg/L	10	07/27/2026 19:26	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	2.5	B	**221**	µg/L	1	07/27/2026 14:16	260103
Beryllium	NELAP	0.5		**< 0.5**	µg/L	1	07/27/2026 14:16	260103
Boron	NELAP	20.0		**188**	µg/L	1	07/29/2026 20:05	260103
Cadmium	NELAP	2.0		**< 2.0**	µg/L	1	07/27/2026 14:16	260103
Calcium	NELAP	0.100		**108**	mg/L	1	07/27/2026 14:16	260103
Chromium	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:16	260103
Cobalt	NELAP	5.0		**< 5.0**	µg/L	1	07/27/2026 14:16	260103
Lead	NELAP	7.5		**< 7.5**	µg/L	1	07/27/2026 14:16	260103
Molybdenum	NELAP	10.0		**< 10.0**	µg/L	1	07/27/2026 14:16	260103
Sample result(s) for Ba exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 21:12	260103
Arsenic	NELAP	1.0		**4.3**	µg/L	5	08/01/2026 1:55	260103
Lithium	*	3.0		**9.7**	µg/L	5	07/29/2026 21:12	260103
Selenium	NELAP	1.0		**< 1.0**	µg/L	5	07/29/2026 21:12	260103
Thallium	NELAP	2.0		**< 2.0**	µg/L	5	07/29/2026 21:12	260103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.20		**< 0.20**	µg/L	1	07/27/2026 9:37	260102
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**2.82**	pci/L	1	08/15/2026 9:57	R389888
Combined 226/228 Uncertainty	*	0		**0.930**	+/-	1	08/15/2026 9:57	R389888
Radium-226	*	1.00		**ND**	pci/L	1	08/15/2026 9:57	R389888
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	08/15/2026 9:57	R389888
Radium-228	*	1.00		**2.82**	pci/L	1	08/14/2026 13:33	R389888

Client: City Water, Light & Power
Work Order: 26071205
Client Project: Ash Pond Monitoring Wells
Report Date: 01-Sep-26
Lab ID: 26071205-023
Client Sample ID: AP17
Matrix: GROUNDWATER
Collection Date: 07/23/2026 12:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228 Uncertainty	*	0		**0.880**	+/-	1	08/14/2026 13:33	R389888

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 26071205
Report Date: 01-Sep-26

Carrier: Frank Barthol

Received By: CS

Completed by: Laura E Henson
On: 22-Jul-26

Reviewed by: Amber Dilallo
On: 28-Jul-26

Pages to follow: Chain of custody 8 Extra pages included 72

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	24.1	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

pH strip #104524. -CRS/ lhenson - 7/22/2026 4:20:45 PM

Cooler #2 22.9C LTG#9. LH 7/22/26

Samples AP10, AP14 and AP17 were received on 7/23/26 at 16:20 on ice [22.7 C, 22.1C - LTG#9]. pH strip #104524. - JD/kmoore - 7/24/2026 9:18:45 AM

Samples RW-3, AP-2, AP-3, AP-4, and AP-5 were received on 7/23/26 at 13:00 on ice [8.7 C, 14.5 C - LTG#9]. pH strip #104524. - JD/kmoore - 7/24/2026 1:50:59 PM

AP-1, AP-6, AP-7, AP-9, AP11, AP12, AP13, T-01, T-02, T-04, T-05, and T-06 were received on 7/27/2026 at 15:20 on ice [25.5 C, 24.9 C, 13.1 C, 12.1 - LTG#3]. pH strip #104524. - kmoore - 7/27/2026 4:16:46 PM

Print PDF

CHAIN OF CUSTODY

Pg 1 of 3 Workorder # 26071205

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 24.1/22.9°C 9
Preserved in: ☐ LAB ☒ FIELD FOR LAB USE ONLY
LAB NOTES: DRY 10US2H CRS 7-22-26

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Frank Barthol

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED													
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity							
26071205-001	RW-3	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
002	AP-1	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
003	AP-2	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
004	AP-3	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
005	AP-4	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
006	AP-5	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
007	AP-6	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
008	AP-7	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
009	AP-8	7.22/1201	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
010	AP-9	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
011	AP10	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							

Relinquished By	Date/Time	Received By	Date/Time
	7.22/1752 1255	Caroline Spencer	7-22-26 1552

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 2 of 3 Workorder # 26071205

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Frank Bartholi

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED													
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity							
26071205-012	AP11	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
013	AP12	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
014	AP13	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
015	AP14	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
016	T-01	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
017	T-02	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
018	T-04	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
019	T-05	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
020	T-06	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
021	AW-1	7.22/1005	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							
022	G120	7.22/1050	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔							

Relinquished By	Date/Time	Received By	Date/Time
	7.22/1752 1552 TE CRS 7.22.26	Caroline Spencer	7.22.26 1552

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CHAIN OF CUSTODY

Pg 1 of 3 Workorder # 26071205

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

22.7, 22.1

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE ____ °C 9
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: pH 04524 SO 7/23/24

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: Frank Barthel

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other ____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26071205-001	RW-3	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
002	AP-1	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
003	AP-2	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
004	AP-3	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
005	AP-4	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
006	AP-5	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
007	AP-6	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
008	AP-7	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
009	AP-8	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
010	AP-9	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓
011	AP10	7.23 1336	Groundwater	1	4								✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
[signature]	7.23 1620	[signature]	7/23/26 1620

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CHAIN OF CUSTODY

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Frank Barthol

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26071205-012	AP11	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
013	AP12	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
014	AP13	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
015	AP14	7.23/953	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
016	T-01	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
017	T-02	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
018	T-04	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
019	T-05	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
020	T-06	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
021	AW-1	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
022	G120	—	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
FB	7.23 1600		7/23/24 1620

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CHAIN OF CUSTODY

Pg 3 of 3 Workorder # 26071205

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Frank Barthol

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26071205-023	AP17	7.23 | 1212	Groundwater	1	4														
			Groundwater																
			Groundwater																
			Groundwater																
			Groundwater																
			Groundwater																
			Groundwater																
			Groundwater																
			Groundwater																
			Groundwater																
			Groundwater																

Relinquished By	Date/Time	Received By	Date/Time
[signature]	7.23 1620	[signature]	7/23/26 1620

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CHAIN OF CUSTODY

Pg 1 of 3 Workorder # 26071205

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

8.7, 14.5

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE ____ °C 9
Preserved in: ☐ LAB ☑ FIELD FOR LAB USE ONLY
LAB NOTES: PH 104524

DO 7/24/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Gilp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26071205-001	RW-3	7-24 1038	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
002	AP-1		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
003	AP-2	7-24 1043	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
004	AP-3	7-24 1008	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
005	AP-4	7-24 1135	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
006	AP-5	7-24 1019	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
007	AP-6		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
008	AP-7		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
009	AP-8		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
010	AP-9		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
011	AP10		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	7-24/1300		7/24/24 1300

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CHAIN OF CUSTODY

Pg 1 of 3 Workorder # 26071205

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

25.4.9.12.1

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 15.1 °C #3
Preserved in: ☐ LAB ☒ FIELD FOR LAB USE ONLY
LAB NOTES: pH/10 5.24.KT M 7.27.26

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Li Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Gp

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26071205-001	RW-3		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
002	AP-1	7-27 1113	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
003	AP-2		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
004	AP-3		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
005	AP-4		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
006	AP-5		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
007	AP-6	7-27 1147	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
008	AP-7	7-27 1343	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
009	AP-8		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
010	AP-9	7-27 1100	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
011	AP10		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	7.27 1525		7.27.26 15:20

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CHAIN OF CUSTODY

Pg 2 of 3 Workorder # 26071205

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE _____ °C
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☑ No
Are these samples known to be hazardous? ☐ Yes ☑ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☑ Yes ☐ No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo
Quarterly monitoring-to be reported electronically

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
Justin Gib

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other _____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Combined Radium	Field Turbidity
26071205-012	AP11	7-27 1215	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
013	AP12	7-27 1050	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
014	AP13	7-27 1015	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
015	AP14		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
016	T-01	7-27 1257	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
017	T-02	7-27 1130	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
018	T-04	7-27 1224	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
019	T-05	7-27 1306	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
020	T-06	7-27 1328	Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
021	AW-1		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔
022	G120		Groundwater	1	4								✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
	7-27/1520		7-27-26 15:20

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	RW-3
Project Location:	Springfield, IL	**Sample ID:**	001
W.O. Number (s):	26071205	**Date (s):**	7/24/2026

Field Team Members

Name: Drew Nieters Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 74 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/24/26 11:05 AM

Static Water Level: 9.76 feet below TOC

Total Depth: 44.01 feet below TOC

Water Column: 34.25 feet

Purging Activities

Purged By: DN Purge Date: 7/24/2026

Purge Equipment: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.25 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: Moderate Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:22	0.0	250	purge start time						
10:23	0.2	↓	7.23	458.30	15.10	2.35	-33.60	11.36	10.06
10:26	1.0		7.11	796.60	14.68	0.77	-121.60	5.68	10.35
10:29	1.8		7.06	800.80	14.74	0.71	-123.00	2.66	10.75
10:32	2.5		7.05	800.50	14.79	0.64	-127.40	3.23	13.38
10:35	3.3		7.05	801.80	14.74	0.60	-130.20	3.71	13.96
10:38	4.0		7.04	801.40	14.69	0.57	-132.30	2.91	14.56

Sampling Activities

Sampled By: PY Sample Date/Time: 7/24/2026 10:38

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 7.04 pH 801.40 Spec. Cond. 14.69 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 14.56 feet below TOC Drawdown: 4.80 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51302

Form Completed By: Payton Yoch **Date:** 7/24/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-1
Project Location:	Springfield, IL	**Sample ID:**	002
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 88 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 10:41 AM

Static Water Level: 10.59 feet below TOC

Total Depth: 31.08 feet below TOC

Water Column: 20.49 feet

Purging Activities

Purged By: DC Purge Date: 7/27/2026

Purge Equipment: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 20.49 ft. x 0.022 = 0.45 L x 3 Vol. = 1.35 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:41	0.0	188	purge start time						
10:43	0.4	↓	7.12	1,216.30	18.03	2.62	-58.60	10.61	10.59
10:46	0.9		6.69	1,649.60	18.16	1.66	-124.56	19.05	10.61
10:49	1.5		6.69	1,676.28	18.29	0.46	-125.07	17.48	10.60
10:52	2.1		6.69	1,702.96	18.42	0.43	-125.58	15.92	10.60
10:55	2.6		6.69	1,729.64	18.55	0.41	-126.09	14.35	10.60
10:58	3.2		6.69	1,755.40	18.57	0.38	-126.20	12.39	10.60
11:01	3.8		6.68	1,782.50	18.86	0.35	-127.20	11.46	10.60
11:04	4.3		6.67	1,809.60	19.15	0.32	-128.20	10.53	10.60
11:07	4.9		6.68	1,841.70	19.03	0.29	-128.30	7.12	10.60
11:10	5.4		6.68	1,859.20	19.14	0.27	-128.20	6.72	10.62
11:13	6.0		6.68	1,870.00	19.15	0.25	-128.00	6.22	10.65

Sampling Activities

Sampled By: BG Sample Date/Time: 7/27/2026 11:13

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.68 pH 1,870.00 Spec. Cond. 19.15 Temp

Field Filtered: No Filter Type:

Water Level: 10.65 feet below TOC Drawdown: 0.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51302

Form Completed By: Brett Gillihan **Date:** 7/27/2026

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 26071205
Monitoring Point: AP-2
Sample ID: 003
Date (s): 7/24/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.
Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 73 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/24/26 10:27 AM
Static Water Level: 7.69 feet below TOC
Total Depth: 21.33 feet below TOC
Water Column: 13.64 feet

Purging Activities

Purged By: DC Purge Date: 7/24/2026
Purge Equipment: Bladder Pump Well Diameter: 2"
Purge Volume Calculation (L): 13.64 ft. x 0.022 = 0.3 L x 3 Vol. = 0.9 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 5.00 L
Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:27	0.0	312	purge start time						
10:28	0.3	↓	7.12	658.60	18.66	5.56	32.31	25.66	7.70
10:31	1.3		6.39	1,390.00	16.20	3.59	9.10	6.66	7.69
10:34	2.2		6.33	1,387.70	16.29	1.41	-0.20	5.27	7.68
10:37	3.1		6.32	1,387.70	16.26	0.85	-3.40	4.92	7.69
10:40	4.1		6.31	1,389.10	16.27	0.64	-5.40	4.59	7.69
10:43	5.0		6.31	1,390.30	16.25	0.53	-6.80	4.59	7.70

Sampling Activities

Sampled By: BG Sample Date/Time: 7/24/2026 10:43
Sample Method: Low Flow Sample Equipment: Bladder Pump
Sample Parameters: 6.31 pH 1,390.30 Spec. Cond. 16.25 Temp
Field Filtered: No Filter Type:
Water Level: 7.70 feet below TOC Drawdown: 0.01 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51302

Form Completed By: Brett Gillihan **Date:** 7/24/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-3
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	26071205	**Date (s):**	7/24/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 73 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/24/26 9:49 AM

Static Water Level: 9.61 feet below TOC

Total Depth: 20.80 feet below TOC

Water Column: 11.19 feet

Purging Activities

Purged By: DC Purge Date: 7/24/2026

Purge Equipment: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 11.19 ft. x 0.022 = 0.25 L x 3 Vol. = 0.75 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:49	0.0	263	purge start time						
9:50	0.3	↓	6.66	658.30	18.12	2.55	-36.60	9.08	9.63
9:53	1.1		6.39	1,432.40	16.09	1.20	-74.20	7.70	9.63
9:56	1.8		6.39	1,427.30	16.07	1.07	-77.30	6.98	9.65
9:59	2.6		6.33	1,414.90	16.07	0.70	-76.00	4.27	9.66
10:02	3.4		6.32	1,407.90	16.09	0.54	-79.50	2.86	9.67
10:05	4.2		6.33	1,404.70	16.02	0.45	-82.20	2.84	9.68
10:08	5.0		6.34	1,401.70	16.08	0.39	-84.00	1.96	9.68

Sampling Activities

Sampled By: BG Sample Date/Time: 7/24/2026 10:08

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.34 pH 1,401.70 Spec. Cond. 16.08 Temp

Field Filtered: No Filter Type:

Water Level: 9.69 feet below TOC Drawdown: 0.08 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51302

Form Completed By: Brett Gillihan **Date:** 7/24/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-4
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	26071205	**Date (s):**	7/24/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 74 °F Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing	X	
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/24/26 10:35 AM

Static Water Level: 10.11 feet below TOC

Total Depth: 60.41 feet below TOC

Water Column: 50.30 feet

Purging Activities

Purged By: JC Purge Date: 7/24/2026

Purge Equipment: Bladder Pump Well Diameter: 2"

Purge Volume Calculation (L): 50.3 ft. x 0.022 = 1.11 L x 3 Vol. = 3.33 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 12.00 L

Physical appearance of purge water: Cloudy Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:35	0.0	200	purge start time						
10:41	1.2	↓	6.91	333.60	18.29	2.66	-56.90	23.63	10.23
10:44	1.8		6.81	505.15	18.27	1.40	-98.21	12.83	10.27
10:47	2.4		6.81	502.30	18.24	1.38	-98.78	14.44	10.31
10:50	3.0		6.82	499.45	18.22	1.37	-99.35	16.06	10.31
10:53	3.6		6.82	496.60	18.20	1.35	-99.92	17.67	10.33
10:56	4.2		6.82	493.75	18.17	1.33	-100.49	19.28	10.33
10:59	4.8		6.82	490.90	18.15	1.31	-101.06	20.89	10.33
11:02	5.4		6.83	488.05	18.12	1.30	-101.63	22.51	10.33
11:05	6.0		6.83	485.20	18.10	1.28	-102.20	24.12	10.33
11:08	6.6		6.83	482.35	18.08	1.26	-102.77	25.73	10.34
11:11	7.2		6.84	479.50	18.05	1.25	-103.34	27.35	10.34
11:14	7.8		6.84	476.65	18.03	1.23	-103.91	28.96	10.35
11:17	8.4		6.84	473.80	18.01	1.21	-104.48	30.57	10.34
11:20	9.0		6.85	470.95	17.98	1.20	-105.05	32.19	10.35
11:23	9.6		6.85	467.20	17.88	1.18	-105.60	32.75	10.35
11:26	10.2		6.85	466.20	18.04	1.16	-106.20	35.43	10.35
11:29	10.8		6.85	463.20	17.91	1.14	-106.80	40.13	10.35
11:32	11.4		6.86	458.70	17.85	1.13	-107.30	36.56	10.35
11:35	12.0		6.86	454.70	17.82	1.11	-107.70	27.42	10.35

Sampling Activities

Sampled By: JC Sample Date/Time: 7/24/2026 11:35

Sample Method: Low Flow Sample Equipment: Bladder Pump

Sample Parameters: 6.87 pH 10.00 Spec. Cond. 23.96 Temp

Field Filtered: No Filter Type:

Water Level: 10.35 feet below TOC Drawdown: 0.24 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp **Date:** 7/24/2026

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 26071205
Monitoring Point: AP-5
Sample ID: 006
Date (s): 7/24/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 72 °F — Wind Direction: ☑ N ☐ S ☐ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/24/26 9:19 AM
Static Water Level: 13.96 feet below TOC
Total Depth: 31.27 feet below TOC
Water Column: 17.31 feet

Purging Activities

Purged By: JC — Purge Date: 7/24/2026
Purge Equipment: Bladder Pump — Well Diameter: 2"
Purge Volume Calculation (L): 17.31 ft. x 0.022 = 0.38 L x 3 Vol. = 1.14 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 12.00 L
Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:19	0.0	200	purge start time						
9:22	0.6	↓	6.69	496.63	14.70	3.62	149.27	143.20	13.99
9:25	1.2		6.66	535.02	14.69	2.37	146.82	136.15	14.03
9:28	1.8		6.67	530.17	14.68	2.34	144.37	129.11	14.19
9:31	2.4		6.67	525.32	14.67	2.31	141.92	122.06	14.47
9:34	3.0		6.68	520.47	14.67	2.28	139.47	115.02	14.69
9:37	3.6		6.68	515.62	14.66	2.25	137.02	107.97	15.01
9:40	4.2		6.69	510.77	14.65	2.22	134.57	100.93	15.05
9:43	4.8		6.69	505.92	14.64	2.19	132.12	93.88	15.07
9:46	5.4		6.70	501.07	14.63	2.16	129.67	86.84	15.09
9:49	6.0		6.70	496.22	14.62	2.13	127.22	79.79	15.15
9:52	6.6		6.71	491.37	14.62	2.10	124.77	72.75	15.19
9:55	7.2		6.71	486.52	14.61	2.07	122.32	65.70	15.21
9:58	7.8		6.72	481.67	14.60	2.04	119.87	58.66	15.21
10:01	8.4		6.72	476.82	14.59	2.01	117.42	51.61	15.24
10:04	9.0		6.73	471.97	14.58	1.98	114.97	44.57	15.29
10:07	9.6		6.73	467.30	14.58	1.95	112.50	37.06	15.31
10:10	10.2		6.74	461.90	14.55	1.92	110.10	31.40	15.32
10:13	10.8		6.74	457.60	14.56	1.89	107.60	22.97	15.36
10:16	11.4		6.74	452.60	14.53	1.86	105.40	25.36	15.36
10:19	12.0		6.75	448.80	14.49	1.84	103.50	28.56	15.36

Sampling Activities

Sampled By: JC — Sample Date/Time: 7/24/2026 10:19
Sample Method: Low Flow — Sample Equipment: Bladder Pump
Sample Parameters: 6.75 pH — 448.80 Spec. Cond. — 14.49 Temp
Field Filtered: No — Filter Type:
Water Level: 15.36 feet below TOC — Drawdown: 1.40 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp — **Date:** 7/24/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-6
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Brett Gillihan — Affiliation: TekLab, Inc.

Name: Danny Crump — Affiliation: TekLab, Inc.

Weather Conditions

Temp: 90 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/27/26 11:29 AM

Static Water Level: 8.27 feet below TOC

Total Depth: 39.62 feet below TOC

Water Column: 31.35 feet

Purging Activities

Purged By: DC — Purge Date: 7/27/2026

Purge Equipment: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 31.35 ft. x 0.022 = 0.69 L x 3 Vol. = 2.07 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear — Odor: None — Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
11:29	0.0	278	purge start time						
11:32	0.8	↓	7.29	620.30	16.11	4.63	-104.00	22.23	8.77
11:35	1.7		7.27	720.90	15.62	1.15	-97.90	15.51	8.93
11:38	2.5		7.25	717.40	15.48	0.61	-91.80	8.79	9.02
11:41	3.3		7.24	717.80	15.39	0.40	-89.60	4.55	9.18
11:44	4.2		7.23	718.10	15.26	0.31	-89.80	2.72	9.21
11:47	5.0		7.23	718.10	15.30	0.27	-89.40	2.07	9.23

Sampling Activities

Sampled By: BG — Sample Date/Time: 7/27/2026 11:47

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 7.56 pH — 1,015.90 Spec. Cond. — 21.02 Temp

Field Filtered: No — Filter Type:

Water Level: 9.24 feet below TOC — Drawdown: 0.97 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51302

Form Completed By: Brett Gillihan — **Date:** 7/27/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-7
Project Location:	Springfield, IL	**Sample ID:**	008
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 95 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 1:15 PM

Static Water Level: 11.56 feet below TOC

Total Depth: 42.52 feet below TOC

Water Column: 30.96 feet

Purging Activities

Purged By: JC — Purge Date: 7/27/2026

Purge Equipment: Bladder Pump — Well Diameter: 2"

Purge Volume Calculation (L): 30.96 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
13:16	0.0	222	purge start time						
13:19	0.7	↓	6.92	350.13	16.26	2.83	-62.40	17.00	14.96
13:22	1.3		6.93	352.22	16.24	2.65	-68.26	15.32	15.22
13:25	2.0		6.93	354.31	16.21	2.47	-74.12	13.64	15.96
13:28	2.7		6.94	355.50	16.12	2.35	-78.40	11.03	16.24
13:31	3.3		6.95	359.80	16.22	2.06	-86.80	12.80	17.06
13:34	4.0		6.96	360.30	16.20	1.87	-93.10	7.06	17.78
13:37	4.7		6.97	362.90	15.99	1.72	-98.20	6.16	18.21
13:40	5.3		6.97	364.40	16.09	1.61	-102.00	5.95	18.79
13:43	6.0		6.97	366.50	16.01	1.53	-104.80	9.13	19.34

Sampling Activities

Sampled By: JC — Sample Date/Time: 7/27/2026 13:43

Sample Method: Low Flow — Sample Equipment: Bladder Pump

Sample Parameters: 6.97 pH — 366.50 Spec. Cond. — 16.01 Temp

Field Filtered: No — Filter Type:

Water Level: 19.34 feet below TOC — Drawdown: 7.78 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp — **Date:** 7/27/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-8
Project Location:	Springfield, IL	**Sample ID:**	009
W.O. Number (s):	26071205	**Date (s):**	7/22/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 74 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	No

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/22/26 11:40 AM

Static Water Level: 5.43 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 34.17 feet

Purging Activities

Purged By: FB Purge Date: 7/22/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.17 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
11:40	0.0	190	purge start time						
11:40	0.2	↓	6.99	1,012.00	17.70	2.21	-109.10	294.59	5.46
11:43	0.6		6.98	1,015.00	17.40	2.15	-109.80	268.65	5.46
11:46	1.1		6.98	1,014.00	16.80	2.52	-111.80	11.99	5.46
11:49	1.7		6.96	1,016.00	16.70	1.96	-113.60	13.09	5.46
11:52	2.3		6.95	1,018.00	16.60	1.73	-116.20	15.94	5.46
11:55	2.9		6.95	1,018.00	16.60	1.73	-116.50	9.06	5.47
11:58	3.4		6.95	1,018.00	16.60	1.72	-116.90	9.28	5.47
12:01	4.0		6.95	1,018.00	16.50	1.71	-117.10	8.07	5.47

Sampling Activities

Sampled By: FB Sample Date/Time: 7/22/2026 12:01

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.95 pH 1,018.00 Spec. Cond. 16.50 Temp

Field Filtered: No Filter Type:

Water Level: 5.48 feet below TOC Drawdown: 0.05 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By: Frank Barthol **Date:** 7/22/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP-9
Project Location:	Springfield, IL	**Sample ID:**	010
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 85 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 9:56 AM

Static Water Level: 13.13 feet below TOC

Total Depth: 39.60 feet below TOC

Water Column: 26.47 feet

Purging Activities

Purged By: JC Purge Date: 7/27/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 26.47 ft. x 0.022 = 0.58 L x 3 Vol. = 1.74 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 13.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: none

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:00	0.0	217	purge start time						
10:06	1.3	↓	6.57	720.69	18.45	2.22	-63.67	106.84	13.26
10:09	2.0		6.58	715.23	17.08	1.97	-64.94	103.04	13.33
10:12	2.6		6.58	709.77	17.19	1.95	-66.21	99.25	13.41
10:15	3.3		6.59	704.31	17.30	1.92	-67.48	95.46	13.49
10:18	3.9		6.60	698.85	17.41	1.90	-68.75	91.67	13.51
10:21	4.6		6.60	693.39	17.53	1.87	-70.02	87.88	13.65
10:24	5.2		6.61	687.93	17.64	1.84	-71.29	84.08	13.74
10:27	5.9		6.61	682.47	17.75	1.82	-72.56	80.11	13.89
10:30	6.5		6.62	677.01	17.86	1.79	-73.83	72.66	13.99
10:33	7.1		6.63	671.55	17.97	1.77	-75.10	74.47	14.05
10:36	7.8		6.63	666.09	18.08	1.74	-76.37	77.64	14.31
10:39	8.4		6.64	660.63	18.19	1.71	-77.64	58.66	14.56
10:42	9.1		6.64	655.17	18.30	1.69	-78.91	61.12	14.96
10:45	9.8		6.65	649.71	18.42	1.66	-80.18	58.44	15.04
10:48	10.4		6.66	644.25	18.53	1.64	-81.45	56.69	15.21
10:51	11.1		6.66	637.70	18.64	1.61	-82.60	35.89	15.48
10:54	11.7		6.67	634.30	18.76	1.58	-84.10	38.16	15.77
10:57	12.4		6.67	629.20	18.83	1.56	-85.40	48.63	15.96
11:00	13.0		6.68	621.20	18.99	1.53	-86.40	48.03	16.05

Sampling Activities

Sampled By: JC Sample Date/Time: 7/27/2026 11:00

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.68 pH 621.20 Spec. Cond. 18.99 Temp

Field Filtered: No Filter Type:

Water Level: 16.05 feet below TOC Drawdown: 2.92 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp **Date:** 7/27/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP10
Project Location:	Springfield, IL	**Sample ID:**	011
W.O. Number (s):	26071205	**Date (s):**	7/23/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 74 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	No

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/23/26 1:18 PM

Static Water Level: 4.13 feet below TOC

Total Depth: 38.07 feet below TOC

Water Column: 33.94 feet

Purging Activities

Purged By: FB Purge Date: 7/23/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 33.94 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
13:18	0.0	167	purge start time						
13:18	0.1	↓	7.14	1,338.00	25.40	5.32	-98.30	56.08	4.21
13:21	0.5		6.82	1,319.00	18.30	1.51	-102.40	4.99	4.21
13:24	1.0		6.82	1,316.00	18.40	1.15	-102.80	4.04	4.41
13:27	1.5		6.82	1,318.00	18.00	0.98	-102.90	5.59	4.43
13:30	2.0		6.82	1,318.00	18.00	0.97	-102.90	6.92	4.48
13:33	2.5		6.82	1,315.00	18.00	0.95	-102.90	7.87	4.51
13:36	3.0		6.82	1,313.00	18.00	0.93	-102.90	7.61	4.53

Sampling Activities

Sampled By: FB Sample Date/Time: 7/23/2026 13:36

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.82 pH 1,313.00 Spec. Cond. 18.00 Temp

Field Filtered: No Filter Type:

Water Level: 4.91 feet below TOC Drawdown: 0.78 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By: Frank Barthol **Date:** 7/23/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP11
Project Location:	Springfield, IL	**Sample ID:**	012
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 87 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	No			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 11:48 AM

Static Water Level: 15.02 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 7.93 feet

Purging Activities

Purged By: FB Purge Date: 7/27/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 7.93 ft. x 0.022 = 0.17 L x 3 Vol. = 0.51 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
11:48	0.0	185	purge start time						
11:48	0.1	↓	6.81	1,405.00	23.30	5.10	-69.50	10.26	15.14
11:51	0.6		6.55	1,290.00	18.40	1.49	-101.30	16.96	15.22
11:54	1.1		6.53	1,284.00	19.20	1.29	-105.40	20.70	15.31
11:57	1.7		6.51	1,296.00	19.40	1.16	-110.20	32.10	15.4
12:00	2.2		6.51	1,291.00	19.40	0.98	-116.00	30.49	15.49
12:03	2.8		6.51	1,285.00	19.40	0.91	-118.10	15.33	15.6
12:06	3.3		6.51	1,284.00	19.40	0.88	-119.10	17.36	15.63
12:09	3.9		6.51	1,284.00	19.30	0.88	-119.50	10.62	15.71
12:12	4.4		6.51	1,283.00	19.30	0.87	-119.70	8.09	15.8
12:15	5.0		6.51	1,282.00	19.30	0.86	-120.10	8.88	15.89

Sampling Activities

Sampled By: FB Sample Date/Time: 7/27/2026 12:15

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.51 pH 1,282.00 Spec. Cond. 19.30 Temp

Field Filtered: No Filter Type:

Water Level: 15.98 feet below TOC Drawdown: 0.96 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By: Frank Barthol **Date:** 7/27/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP12
Project Location:	Springfield, IL	**Sample ID:**	013
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 85 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Locks	Yes	No
Well Pad	Good		Protective Casing		X
Casing	Good		Well		X
Protective Casing	Good				
Reference Mark/Identification	Yes				

Groundwater Level Measurements

Date/Time Measured: 7/27/26 10:26 AM

Static Water Level: 17.54 feet below TOC

Total Depth: 30.40 feet below TOC

Water Column: 12.86 feet

Purging Activities

Purged By: FB Purge Date: 7/27/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 12.86 ft. x 0.022 = 0.28 L x 3 Vol. = 0.84 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: Light Brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:26	0.0	167	purge start time						
10:26	0.2	↓	6.79	1,414.00	21.90	6.79	-47.30	32.33	17.92
10:29	0.5		6.43	1,504.00	17.60	1.78	-32.80	36.66	18.01
10:32	1.0		6.43	1,495.00	18.50	1.38	-31.80	49.96	18.03
10:35	1.5		6.44	1,505.00	18.70	1.25	-31.90	33.90	18.05
10:38	2.0		6.44	1,511.00	18.70	1.14	-31.80	21.89	18.07
10:41	2.5		6.44	1,514.00	18.40	1.05	-32.60	13.62	18.08
10:44	3.0		6.45	1,514.00	18.30	1.00	-32.70	16.82	18.1
10:47	3.5		6.45	1,514.00	18.30	0.99	-32.70	9.25	18.13
10:50	4.0		6.45	1,514.00	18.30	0.99	-32.70	7.48	18.16

Sampling Activities

Sampled By: FB Sample Date/Time: 7/27/2026 10:50

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.45 pH 1,514.00 Spec. Cond. 18.30 Temp

Field Filtered: No Filter Type:

Water Level: 18.21 feet below TOC Drawdown: 0.67 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688
- Apparent increase in turbidity during sample collection.

Form Completed By:  **Date:** 7/27/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP13
Project Location:	Springfield, IL	**Sample ID:**	014
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 85 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 9:42 AM

Static Water Level: 17.35 feet below TOC

Total Depth: 31.00 feet below TOC

Water Column: 13.65 feet

Purging Activities

Purged By: FB Purge Date: 7/27/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 13.65 ft. x 0.022 = 0.3 L x 3 Vol. = 0.9 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:42	0.0	152	purge start time						
9:42	0.1	↓	6.80	911.00	21.60	5.98	-143.50	15.58	17.85
9:45	0.5		6.64	865.00	17.10	2.72	-156.80	18.82	17.86
9:48	0.9		6.63	854.00	17.50	1.03	-164.40	145.06	17.88
9:51	1.4		6.63	859.00	18.60	0.97	-146.00	220.64	17.9
9:54	1.8		6.63	859.00	18.60	0.96	-144.00	33.44	17.9
9:57	2.3		6.63	859.00	18.60	0.95	-142.30	45.35	17.9
10:00	2.7		6.63	860.00	18.70	0.94	-140.80	65.15	17.9
10:03	3.2		6.63	860.00	18.70	0.93	-140.40	33.14	17.9
10:06	3.6		6.63	860.00	18.70	0.93	-140.00	17.83	17.9
10:09	4.1		6.63	861.00	18.60	0.92	-139.70	5.86	17.9
10:12	4.5		6.63	861.00	18.60	0.92	-139.40	5.13	17.9
10:15	5.0		6.63	861.00	18.60	0.91	-139.30	8.91	17.9

Sampling Activities

Sampled By: FB Sample Date/Time: 7/27/2026 10:15

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.63 pH 861.00 Spec. Cond. 18.60 Temp

Field Filtered: No Filter Type:

Water Level: 17.92 feet below TOC Drawdown: 0.57 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By: Frank Barthol **Date:** 7/27/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP14
Project Location:	Springfield, IL	**Sample ID:**	015
W.O. Number (s):	26071205	**Date (s):**	7/23/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 68 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/23/26 9:35 AM

Static Water Level: 2.20 feet below TOC

Total Depth: 31.20 feet below TOC

Water Column: 29.00 feet

Purging Activities

Purged By: FB Purge Date: 7/23/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 29 ft. x 0.022 = 0.64 L x 3 Vol. = 1.92 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:35	0.0	167	purge start time						
9:35	0.1	↓	7.00	2230.00	20.90	5.01	164.60	21.53	2.26
9:38	0.5		6.84	2225.00	17.60	1.73	144.40	35.66	2.28
9:41	1.0		6.85	2225.00	17.20	1.28	136.00	26.51	2.29
9:44	1.5		6.85	2222.00	17.20	0.99	126.20	25.36	2.32
9:47	2.0		6.86	2220.00	17.10	0.86	44.40	9.05	2.32
9:50	2.5		6.86	2219.00	17.10	0.85	41.30	6.71	2.32
9:53	3.0		6.87	2219.00	17.10	0.84	32.00	5.28	2.33

Sampling Activities

Sampled By: FB Sample Date/Time: 7/23/2026 9:53

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.87 pH 2,219.00 Spec. Cond. 17.10 Temp

Field Filtered: No Filter Type:

Water Level: 2.34 feet below TOC Drawdown: 0.14 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By:  **Date:** 7/23/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-01
Project Location:	Springfield, IL	**Sample ID:**	016
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 90 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	No			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 12:30 PM

Static Water Level: 13.45 feet below TOC

Total Depth: 22.95 feet below TOC

Water Column: 9.50 feet

Purging Activities

Purged By: FB Purge Date: 7/27/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 9.5 ft. x 0.022 = 0.21 L x 3 Vol. = 0.63 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
12:30	0.0	167	purge start time						
12:30	0.1	↓	6.67	1,431.00	22.60	5.33	-22.30	27.24	13.77
12:33	0.5		6.53	1,396.00	17.60	1.44	12.30	32.05	13.8
12:36	1.0		6.53	1,379.00	18.60	1.24	22.60	32.48	13.83
12:39	1.5		6.52	1,390.00	19.20	1.17	36.20	43.75	13.85
12:42	2.0		6.52	1,406.00	19.50	1.08	47.90	55.93	13.85
12:45	2.5		6.51	1,410.00	19.30	0.99	55.20	28.67	13.87
12:48	3.0		6.51	1,414.00	19.40	0.90	60.10	11.17	13.88
12:51	3.5		6.51	1,415.00	19.40	0.90	62.00	14.95	13.88
12:54	4.0		6.51	1,415.00	19.40	0.90	62.30	6.66	13.88
12:57	4.5		6.51	1,417.00	19.40	0.90	62.50	8.04	13.88

Sampling Activities

Sampled By: FB Sample Date/Time: 7/27/2026 12:57

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.51 pH 1,417.00 Spec. Cond. 19.40 Temp

Field Filtered: No Filter Type:

Water Level: 13.88 feet below TOC Drawdown: 0.43 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By: Frank Barthol **Date:** 7/27/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-02
Project Location:	Springfield, IL	**Sample ID:**	017
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 87 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 11:03 AM

Static Water Level: 24.69 feet below TOC

Total Depth: 34.44 feet below TOC

Water Column: 9.75 feet

Purging Activities

Purged By: FB Purge Date: 7/27/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 9.75 ft. x 0.022 = 0.21 L x 3 Vol. = 0.63 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: Moderate Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
11:03	0.0	185	purge start time						
11:03	0.2	↓	6.64	2,085.00	21.20	5.89	-86.10	12.28	24.79
11:06	0.6		6.48	2,192.00	16.30	2.05	-77.30	11.89	24.91
11:09	1.1		6.50	2,155.00	17.60	1.29	-90.20	16.33	25.01
11:12	1.7		6.50	2,171.00	18.10	1.23	-95.80	18.46	25.13
11:15	2.2		6.50	2,182.00	18.70	1.21	-106.40	18.99	25.22
11:18	2.8		6.50	2,182.00	18.80	1.21	-108.50	18.58	25.33
11:21	3.3		6.50	2,180.00	18.90	1.17	-111.70	18.68	25.39
11:24	3.9		6.51	2,185.00	19.00	1.12	-119.60	11.84	25.44
11:27	4.4		6.51	2,187.00	19.00	1.12	-120.80	9.32	25.56
11:30	5.0		6.51	2,188.00	19.00	1.12	-121.60	8.15	25.63

Sampling Activities

Sampled By: FB Sample Date/Time: 7/27/2026 11:30

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.51 pH 2,188.00 Spec. Cond. 19.00 Temp

Field Filtered: No Filter Type:

Water Level: 25.80 feet below TOC Drawdown: 1.11 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By: Frank Barthol **Date:** 7/27/2026

Field Data Sheet

Project Name: Ash Pond Monitoring Wells
Project Location: Springfield, IL
W.O. Number (s): 26071205
Monitoring Point: T-04
Sample ID: 018
Date (s): 7/27/2026

Field Team Members

Name: Justin Colp — Affiliation: TekLab, Inc.
Name: — Affiliation:

Weather Conditions

Temp: 89 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 11:23 AM
Static Water Level: 16.75 feet below TOC
Total Depth: 27.42 feet below TOC
Water Column: 10.67 feet

Purging Activities

Purged By: JC — Purge Date: 7/27/2026
Purge Equipment: Peristaltic Pump — Well Diameter: 2"
Purge Volume Calculation (L): 10.67 ft. x 0.022 = 0.23 L x 3 Vol. = 0.69 L **Based on Low-Flow (3/8" discharge)*
Actual Purge Volume (L): 12.00 L
Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
11:24	0.0	200	purge start time						
11:27	0.6	↓	6.32	362.45	22.90	4.65	33.40	113.45	16.75
11:30	1.2		6.39	363.16	22.74	4.53	32.96	105.19	16.75
11:33	1.8		6.40	363.87	22.58	4.41	32.52	96.93	16.79
11:36	2.4		6.40	364.58	22.41	4.29	32.08	88.67	16.82
11:39	3.0		6.41	365.29	22.25	4.17	31.64	80.41	16.86
11:42	3.6		6.42	366.00	22.09	4.05	31.20	72.15	16.89
11:45	4.2		6.42	366.71	21.92	3.93	30.76	63.89	16.93
11:48	4.8		6.43	367.42	21.76	3.81	30.32	58.63	16.96
11:51	5.4		6.43	368.13	21.60	3.69	29.88	43.37	17.00
11:54	6.0		6.44	368.84	21.43	3.57	29.44	38.11	17.07
11:57	6.6		6.45	369.55	21.27	3.46	29.00	32.85	17.14
12:00	7.2		6.45	370.26	21.11	3.34	28.56	27.59	17.21
12:03	7.8		6.46	370.97	20.94	3.22	28.12	32.33	17.28
12:06	8.4		6.46	371.68	20.78	3.10	27.68	37.07	17.34
12:09	9.0		6.47	372.39	20.62	2.98	27.24	41.81	17.41
12:12	9.6		6.48	373.10	20.45	2.86	26.80	46.55	17.48
12:15	10.2		6.48	369.10	20.19	2.77	25.70	37.91	17.55
12:18	10.8		6.48	377.20	20.21	2.56	26.90	74.50	17.61
12:21	11.4		6.51	384.00	20.11	2.54	25.50	63.93	17.69
12:24	12.0		6.49	369.20	19.68	2.38	24.70	57.23	17.75

Sampling Activities

Sampled By: JC — Sample Date/Time: 7/27/2026 12:24
Sample Method: Low Flow — Sample Equipment: Peristaltic Pump
Sample Parameters: 6.49 pH — 369.20 Spec. Cond. — 19.68 Temp
Field Filtered: No — Filter Type:
Water Level: 17.75 feet below TOC — Drawdown: 1.00 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp — **Date:** 7/27/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-05
Project Location:	Springfield, IL	**Sample ID:**	019
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Justin Colp Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 92 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 12:37 PM

Static Water Level: 8.05 feet below TOC

Total Depth: 22.34 feet below TOC

Water Column: 14.29 feet

Purging Activities

Purged By: JC Purge Date: 7/27/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 14.29 ft. x 0.022 = 0.31 L x 3 Vol. = 0.93 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 6.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
12:38	0.0	214	purge start time						
12:39	0.2	↓	6.96	243.65	21.01	4.33	31.80	23.11	8.12
12:42	0.9		6.54	350.64	21.32	1.80	32.30	10.83	8.24
12:45	1.5		6.55	351.93	21.63	1.80	32.80	10.72	8.37
12:48	2.1		6.56	353.22	21.94	1.80	33.30	10.60	8.50
12:51	2.8		6.57	354.51	22.25	1.80	33.80	10.48	8.63
12:54	3.4		6.58	355.80	22.56	1.80	34.30	10.37	8.76
12:57	4.1		6.58	357.10	22.76	1.78	34.90	8.17	8.88
13:00	4.7		6.60	357.80	23.29	1.80	35.20	13.11	9.01
13:03	5.4		6.61	360.80	23.66	1.81	35.70	10.29	9.19
13:06	6.0		6.61	360.40	23.67	1.77	36.40	8.72	9.25

Sampling Activities

Sampled By: JC Sample Date/Time: 7/27/2026 13:06

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.61 pH 360.40 Spec. Cond. 23.67 Temp

Field Filtered: No Filter Type:

Water Level: 9.25 feet below TOC Drawdown: 1.20 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 223344

Form Completed By: Justin Colp **Date:** 7/27/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	T-06
Project Location:	Springfield, IL	**Sample ID:**	020
W.O. Number (s):	26071205	**Date (s):**	7/27/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 91 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☑ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good	Protective Casing		X
Casing	Good	Well		X
Protective Casing	Good			
Reference Mark/Identification	No			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 12:55 PM

Static Water Level: 8.71 feet below TOC

Total Depth: 23.66 feet below TOC

Water Column: 14.95 feet

Purging Activities

Purged By: FB Purge Date: 7/27/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 14.95 ft. x 0.022 = 0.33 L x 3 Vol. = 0.99 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
12:55	0.0	152	purge start time						
12:55	0.2	↓	7.24	716.00	27.50	1.05	-166.40	1063.70	8.6
12:58	0.5		7.21	739.00	18.30	1.80	-135.40	207.22	8.64
13:01	0.9		7.17	735.00	21.90	1.09	-139.30	75.61	8.68
13:04	1.4		7.17	737.00	21.70	0.79	-140.70	53.18	8.68
13:07	1.8		7.17	736.00	21.70	0.68	-140.40	40.87	8.7
13:10	2.3		7.17	735.00	21.60	0.63	-138.50	35.62	8.71
13:13	2.7		7.16	734.00	21.60	0.62	-138.40	23.11	8.72
13:16	3.2		7.16	735.00	21.80	0.63	-138.10	20.90	8.76
13:19	3.6		7.17	735.00	22.40	0.60	-138.00	12.87	8.81
13:22	4.1		7.17	736.00	22.40	0.59	-138.10	6.88	8.81
13:25	4.5		7.17	736.00	22.40	0.60	-138.30	3.74	8.81
13:28	5.0		7.17	736.00	22.50	0.60	-138.50	4.73	8.83

Sampling Activities

Sampled By: FB Sample Date/Time: 7/27/2026 13:28

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 7.17 pH 736.00 Spec. Cond. 22.50 Temp

Field Filtered: No Filter Type:

Water Level: 8.91 feet below TOC Drawdown: 0.20 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By: Frank Barthol **Date:** 7/27/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AW-1
Project Location:	Springfield, IL	**Sample ID:**	021
W.O. Number (s):	26071205	**Date (s):**	7/22/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/22/26 9:38 AM

Static Water Level: 13.28 feet below TOC

Total Depth: 54.81 feet below TOC

Water Column: 41.53 feet

Purging Activities

Purged By: FB Purge Date: 7/22/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 41.53 ft. x 0.022 = 0.91 L x 3 Vol. = 2.73 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.75 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:38	0.0	176	purge start time						
9:38	0.2	↓	6.69	1,545.00	18.10	3.84	-38.20	54.23	14.22
9:41	0.5		6.62	1,506.00	16.50	2.01	-26.40	52.28	15.01
9:44	1.1		6.62	1,520.00	17.00	2.18	-28.00	45.83	15.11
9:47	1.6		6.63	1,555.00	17.20	2.29	-55.80	35.17	15.26
9:50	2.1		6.63	1,572.00	17.10	2.35	-62.40	33.93	15.53
9:53	2.6		6.63	1,569.00	17.20	2.31	-63.30	32.42	15.67
9:56	3.2		6.63	1,569.00	17.30	2.29	-63.90	33.01	15.78
9:59	3.7		6.63	1,569.00	17.30	2.29	-64.10	32.64	15.91
10:02	4.2		6.63	1,569.00	17.30	2.29	-64.20	32.78	16.04
10:05	4.8		6.63	1,569.00	17.30	2.28	-64.30	33.33	16.13

Sampling Activities

Sampled By: FB Sample Date/Time: 7/22/2026 10:05

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.63 pH 1,569.00 Spec. Cond. 17.30 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 16.96 feet below TOC Drawdown: 3.68 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By: Frank Barthol **Date:** 7/22/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	G120
Project Location:	Springfield, IL	**Sample ID:**	022
W.O. Number (s):	26071205	**Date (s):**	7/22/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 73 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/22/26 10:20 AM

Static Water Level: 15.38 feet below TOC

Total Depth: 50.37 feet below TOC

Water Column: 34.99 feet

Purging Activities

Purged By: FB Purge Date: 7/22/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.99 ft. x 0.022 = 0.77 L x 3 Vol. = 2.31 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 5.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:20	0.0	167	purge start time						
10:20	0.2	↓	6.96	1,195.00	19.30	5.67	-39.20	148.60	15.88
10:23	0.5		6.86	1,588.00	17.30	3.74	-1.20	57.49	15.89
10:26	1.0		6.85	1,827.00	16.90	2.32	50.10	80.01	15.89
10:29	1.5		6.82	1,832.00	17.40	2.30	56.30	79.96	15.89
10:32	2.0		6.85	1,832.00	17.50	2.31	57.10	80.87	15.89
10:35	2.5		6.85	1,836.00	17.70	2.37	79.10	67.65	15.89
10:38	3.0		6.85	1,836.00	17.70	2.36	85.90	62.32	15.89
10:41	3.5		6.85	1,837.00	17.70	2.36	86.30	61.31	15.89
10:44	4.0		6.85	1,836.00	17.70	2.36	86.70	61.43	15.89
10:47	4.5		6.85	1,836.00	17.70	2.35	87.20	61.39	15.89
10:50	5.0		6.85	1,837.00	17.70	2.35	87.96	61.67	15.89

Sampling Activities

Sampled By: FB Sample Date/Time: 7/22/2026 10:50

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.85 pH 1,837.00 Spec. Cond. 17.70 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 15.89 feet below TOC Drawdown: 0.51 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688
- Flush Mount well

Form Completed By:  **Date:** 7/22/2026

Field Data Sheet

Project Name:	Ash Pond Monitoring Wells	**Monitoring Point:**	AP17
Project Location:	Springfield, IL	**Sample ID:**	023
W.O. Number (s):	26071205	**Date (s):**	7/23/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 72 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

			Yes	No
Well Pad	Good	**Locks**		
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/23/26 11:48 AM

Static Water Level: 27.58 feet below TOC

Total Depth: 60.31 feet below TOC

Water Column: 32.73 feet

Purging Activities

Purged By: FB Purge Date: 7/23/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 32.73 ft. x 0.022 = 0.72 L x 3 Vol. = 2.16 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.50 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
11:48	0.0	188	purge start time						
11:48	0.2	↓	7.45	950.00	24.40	4.26	10.80	19.94	28.09
11:51	0.6		7.10	925.00	17.40	1.73	-20.60	17.76	28.23
11:54	1.1		7.08	923.00	17.40	1.51	-20.10	19.89	28.29
11:57	1.7		7.07	920.00	17.40	1.35	-18.60	19.66	28.36
12:00	2.3		7.07	920.00	17.30	1.34	-18.60	9.75	28.49
12:03	2.8		7.07	920.00	17.30	1.31	-18.50	8.71	28.56
12:06	3.4		7.07	919.00	17.40	1.30	-18.40	15.43	28.69
12:09	3.9		7.07	918.00	17.40	1.29	-18.40	8.83	28.8
12:12	4.5		7.07	917.00	17.50	1.28	-18.40	4.06	28.91

Sampling Activities

Sampled By: FB Sample Date/Time: 7/23/2026 12:12

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 7.07 pH 917.00 Spec. Cond. 17.50 Temp

Field Filtered: No Filter Type:

Water Level: 29.06 feet below TOC Drawdown: 1.48 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By:  **Date:** 7/23/2026

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 26071205
Technician(s): FB, DC, JC, BG

Field Calibration Log(s)
CWLP- 3Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 234688 Technician(s): Frank Barthol Date: 7/22/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	159.70	7/22/26 8:49
7.0 Buffer	WC260710B	7.00	-19.50	7/22/26 8:43
10.0 Buffer	WC260710C	10.00	-190.80	7/22/26 8:55
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/22/26 9:02

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.09	7/22/26 9:08
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-FB	LCS	7/22/26 9:11	23.3	7.01	1,412	0.11		
CCV-1-FB	CCV	7/22/26 14:08	27.2	7.06	1,396	0.09		

Comments:

Field Meter ID: Pine 234688 Technician(s): Frank Barthol Date: 7/23/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	164.20	7/23/26 9:06
7.0 Buffer	WC260710B	7.00	-14.60	7/23/26 8:58
10.0 Buffer	WC260710C	10.00	-186.30	7/23/26 9:13
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/23/26 9:19

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.13	7/23/26 9:22
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-FB	LCS	7/23/26 9:24	22.4	7.00	1,410	0.13		
CCV-2-FB	CCV	7/23/26 14:45	30.23	7.06	1,391	0.16		

Comments:

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 26071205
Technician(s): FB, DC, JC, BG

Field Calibration Log(s)
CWLP- 3Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 234688 Technician(s): Frank Barthol Date: 7/27/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	157.60	7/27/26 9:13
7.0 Buffer	WC260710B	7.00	-20.20	7/27/26 9:09
10.0 Buffer	WC260710C	10.00	-191.60	7/27/26 9:19
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/27/26 9:24

s

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.14	7/27/26 9:26
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-3-FB	LCS	7/27/26 9:29	23.4	7.01	1,413	0.16		
CCV-3-FB	CCV	7/27/26 13:51	29.4	7.06	1,399	0.14		

Comments:

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 26071205
Technician(s): FB, DC, JC, BG

Field Calibration Log(s)
CWLP- 3Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 51302 Technician(s): Brett Gillihan Date: 7/24/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	135.30	7/24/26 9:38
7.0 Buffer	WC260710B	7.00	-37.10	7/24/26 9:30
10.0 Buffer	WC260710C	10.00	-196.03	7/24/26 9:44
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/24/26 9:48

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.42	7/24/26 9:49
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	7/24/26 9:52	20.4	6.99	1,411	0.4		
CCV-1	CCV	7/24/26 11:15	20.4	6.98	1,411	0.41		

Comments:

Field Meter ID: Pine 51302 Technician(s): Brett Gilihan Date: 7/27/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	134.24	7/27/26 10:24
7.0 Buffer	WC260710B	7.00	-37.08	7/27/26 10:22
10.0 Buffer	WC260710C	10.00	-196.32	7/27/26 10:27
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/27/26 10:29

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.3	7/27/26 10:31
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	7/27/26 10:37	23.2	7.02	1,412	0.31		
CCV-2-BG	CCV	7/27/26 14:00	24.3	7.03	1,415	0.34		

Comments:

Site Samping Event: Ash Pond Mon. Wells
LIMS Workorder: 26071205
Technician(s): FB, DC, JC, BG

Field Calibration Log(s)
CWLP- 3Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 223344 Technician(s): justin colp Date: 7/24/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	140.60	7/24/26 8:54
7.0 Buffer	WC260710B	7.00	-31.80	7/24/26 8:50
10.0 Buffer	WC260710C	10.00	-198.70	7/24/26 8:58
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/24/26 9:07

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.94	7/24/26 9:07
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-JC	LCS	7/24/26 9:09	21.7	7.03	1,417	0.87		
CCV-1-JC	CCV	7/24/26 11:38	21.9	7.05	1,371	0.88		

Comments:

Field Meter ID: Pine 223344 Technician(s): justin colp Date: 7/27/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	140.40	7/27/26 9:20
7.0 Buffer	WC260710B	7.00	-30.70	7/27/26 9:16
10.0 Buffer	WC260710C	10.00	-199.10	7/27/26 9:23
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/27/26 9:31

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	1.23	7/27/26 9:32
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-JC	LCS	7/27/26 9:35	24.9	7.04	1,417	1.16		
CCV-2-JC	CCV	7/27/26 13:45	25.3	7.01	1,339	1.08		

Comments:

Alliance Technical Group - Akron
3310 Win St.
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Website: http://www.settek.com

August 28, 2026

Shelly Hennessy
TEKLAB Inc,
120 United Drive
Collinsville, IL 62234
TEL:
FAX:

RE: 26071205

Dear Shelly Hennessy: Order No.: 26080027

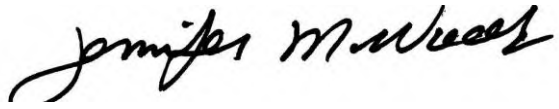
Alliance Technical Group - Akron received 23 sample(s) on 7/31/2026 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,



Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0828, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **26080027**
Date: **8/28/2026**

CLIENT: TEKLAB Inc,
Project: 26071205

WorkOrder Narrative:
26080027: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence Sample Notes:
26080027-018A Radium-228_NPW(904.0): Parent sample and duplicate exhibited high RPD.
26080027-019A Radium-228_NPW(904.0): Parent sample and duplicate exhibited high RPD.

Analytical Sequence QC Notes:
LCS/LCSD-101685 Radium-228_NPW(904.0): LCS/LCSD exhibit high RPD. Both results are within acceptable criteria individually.
LCS/LCSD-101684 Radium-228_DW(904.0): LCS/LCSD exhibit high RPD. Both results are within acceptable criteria individually.

Alliance Technical Group - Akron
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Workorder Sample Summary

WO#: **26080027**

28-Aug-26

CLIENT: TEKLAB Inc,
Project: 26071205

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
26080027-001	26071205-001C		7/24/2026 10:38:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-002	26071205-002C		7/27/2026 11:13:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-003	26071205-003C		7/24/2026 10:43:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-004	26071205-004C		7/24/2026 10:08:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-005	26071205-005C		7/24/2026 11:35:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-006	26071205-006C		7/24/2026 10:19:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-007	26071205-007C		7/27/2026 11:47:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-008	26071205-008C		7/27/2026 1:43:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-009	26071205-009C		7/22/2026 12:01:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-010	26071205-010C		7/27/2026 11:00:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-011	26071205-011C		7/23/2026 1:36:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-012	26071205-012C		7/27/2026 12:15:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-013	26071205-013C		7/27/2026 10:50:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-014	26071205-014C		7/27/2026 10:15:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-015	26071205-015C		7/23/2026 9:53:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-016	26071205-016C		7/27/2026 12:57:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-017	26071205-017C		7/27/2026 11:30:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-018	26071205-018C		7/27/2026 12:24:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-019	26071205-019C		7/27/2026 1:06:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-020	26071205-020C		7/27/2026 1:28:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-021	26071205-021C		7/27/2026 10:05:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-022	26071205-022C		7/22/2026 10:50:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080027-023	26071205-023C		7/23/2026 12:12:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water

Alliance Technical Group - Akron
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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/24/2026 10:38:00 AM
Project: 26071205
Lab ID: 26080027-001
Matrix: NON-POTABLE WATER
Client Sample ID: 26071205-001C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.620	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.570	1	8/12/2026 1:15:00 PM
Yield	0.990					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 11:13:00 AM

Project: 26071205

Lab ID: 26080027-002
Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-002C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.740	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0600	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	1.31	1.00		pCi/L	± 0.680	1	8/12/2026 1:15:00 PM
Yield	0.930					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/24/2026 10:43:00 AM

Project: 26071205

Lab ID: 26080027-003
Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-003C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.550	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.500	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/24/2026 10:08:00 AM

Project: 26071205

Lab ID: 26080027-004
Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-004C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.610	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0400	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.570	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,

Collection Date: 7/24/2026 11:35:00 AM

Project: 26071205

Lab ID: 26080027-005

Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-005C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.620	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0600	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.560	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/24/2026 10:19:00 AM

Project: 26071205

Lab ID: 26080027-006
Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-006C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.530	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0300	1	8/13/2026 7:39:00 AM
Yield	0.960					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.500	1	8/12/2026 1:15:00 PM
Yield	0.840					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 11:47:00 AM

Project: 26071205

Lab ID: 26080027-007
Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-007C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.610	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0600	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.560	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 1:43:00 PM
Project: 26071205
Lab ID: 26080027-008
Matrix: NON-POTABLE WATER
Client Sample ID: 26071205-008C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.890	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0600	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	1.46	1.00		pCi/L	± 0.830	1	8/12/2026 1:15:00 PM
Yield	0.840					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,

Collection Date: 7/22/2026 12:01:00 PM

Project: 26071205

Lab ID: 26080027-009

Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-009C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.860	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.100	1	8/13/2026 7:39:00 AM
Yield	0.890					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	1.33	1.00		pCi/L	± 0.760	1	8/12/2026 1:15:00 PM
Yield	0.880					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 11:00:00 AM
Project: 26071205
Lab ID: 26080027-010
Matrix: NON-POTABLE WATER
Client Sample ID: 26071205-010C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.660	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.610	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

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WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,

Collection Date: 7/23/2026 1:36:00 PM

Project: 26071205

Lab ID: 26080027-011

Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-011C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.720	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0700	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	1.10	1.00		pCi/L	± 0.650	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 12:15:00 PM

Project: 26071205

Lab ID: 26080027-012
Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-012C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.510	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0300	1	8/13/2026 7:39:00 AM
Yield	0.990					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.480	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 10:50:00 AM
Project: 26071205
Lab ID: 26080027-013
Matrix: NON-POTABLE WATER
Client Sample ID: 26071205-013C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.620	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.570	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Alliance Technical Group - Akron
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Analytical Report

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WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 10:15:00 AM
Project: 26071205
Lab ID: 26080027-014
Matrix: NON-POTABLE WATER
Client Sample ID: 26071205-014C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.580	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0400	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.540	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/23/2026 9:53:00 AM
Project: 26071205
Lab ID: 26080027-015
Matrix: NON-POTABLE WATER
Client Sample ID: 26071205-015C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.670	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0400	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.630	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 12:57:00 PM

Project: 26071205

Lab ID: 26080027-016
Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-016C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.530	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.480	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 11:30:00 AM
Project: 26071205
Lab ID: 26080027-017
Matrix: NON-POTABLE WATER
Client Sample ID: 26071205-017C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228 COMBINED RADIUM (EPA903+904)					**CALCULATION**	**E903-904**	Analyst: **TAL**
Radium-226/Radium-228	2.23	2.00		pCi/L	± 0.840	1	8/13/2026 7:39:00 AM
RAD226/228 RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **TAL**
Radium-226	ND	1.00		pCi/L	± 0.0600	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228 RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **TAL**
Radium-228	2.23	1.00		pCi/L	± 0.780	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 12:24:00 PM

Project: 26071205

Lab ID: 26080027-018
Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-018C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.690	1	8/15/2026 9:57:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	8/15/2026 9:57:00 AM
Yield	0.960					1	8/15/2026 9:57:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00	QDR	pCi/L	± 0.640	1	8/14/2026 1:33:00 PM
Yield	1.00					1	8/14/2026 1:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Alliance Technical Group - Akron
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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,

Collection Date: 7/27/2026 1:06:00 PM

Project: 26071205

Lab ID: 26080027-019

Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-019C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.850	1	8/15/2026 9:57:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0400	1	8/15/2026 9:57:00 AM
Yield	1.00					1	8/15/2026 9:57:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	1.87	1.00	QDR	pCi/L	± 0.810	1	8/14/2026 1:33:00 PM
Yield	1.00					1	8/14/2026 1:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,

Collection Date: 7/27/2026 1:28:00 PM

Project: 26071205

Lab ID: 26080027-020

Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-020C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **KM**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.770	1	8/25/2026 9:44:41 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	8/15/2026 9:57:00 AM
Yield	1.00					1	8/15/2026 9:57:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **KM**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.720	1	8/24/2026 2:05:23 PM
Yield	1.00					1	8/24/2026 2:05:23 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,

Collection Date: 7/27/2026 10:05:00 AM

Project: 26071205

Lab ID: 26080027-021

Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-021C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.750	1	8/15/2026 9:57:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	8/15/2026 9:57:00 AM
Yield	0.950					1	8/15/2026 9:57:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	1.12	1.00		pCi/L	± 0.700	1	8/14/2026 1:33:00 PM
Yield	1.00					1	8/14/2026 1:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/22/2026 10:50:00 AM

Project: 26071205

Lab ID: 26080027-022
Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-022C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	3.10	2.00		pCi/L	± 1.16	1	8/15/2026 9:57:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0400	1	8/15/2026 9:57:00 AM
Yield	1.00					1	8/15/2026 9:57:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	3.10	1.00		pCi/L	± 1.12	1	8/14/2026 1:33:00 PM
Yield	0.810					1	8/14/2026 1:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080027**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,

Collection Date: 7/23/2026 12:12:00 PM

Project: 26071205

Lab ID: 26080027-023

Matrix: NON-POTABLE WATER

Client Sample ID: 26071205-023C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	2.82	2.00		pCi/L	± 0.930	1	8/15/2026 9:57:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	8/15/2026 9:57:00 AM
Yield	1.00					1	8/15/2026 9:57:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	2.82	1.00		pCi/L	± 0.880	1	8/14/2026 1:33:00 PM
Yield	1.00					1	8/14/2026 1:33:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
D	Manual integration in which peak was deleted.
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	A deviation from the method was performed; Please refer to the Case Narrative for additional information.

Acroynms

ND	Not Detected
QC	Quality Control
MB	Method Blank
LCS	Laboratory Control Sample
LCS	Laboratory Control Sample Duplicate
QCS	Quality Control Sample
DUP	Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Different
ICV	Initial Calibration Verification
ICB	Initial Calibration Blank
CCV	Continuing Calibration Verification
CCB	Continuing Calibration Blank
RLC	Reporting Limit Check
DF	Dilution Factor

RL	Reporting Limit
MDL	Method Detection Limit
LOD	Level of Detection
LOQ	Level of Quantitation
PQL	Practical Quantitation Limit
CRQL	Contract Required Quantitation Limit
PL	Permit Limit
RegLvl	Regulatory Limit
MCL	Maximum Contamination Limit
MinCL	Minimum Compound Limit
RA	Reanalysis
RE	Reextraction
TIC	Tentatively Identified Compound
RT	Retention Time
CF	Calibration Factor
RF	Response Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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DATES REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26080027-001A	26071205-001C	7/24/2026 10:38:00 AM	Non-Potable Water	Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-002A	26071205-002C	7/27/2026 11:13:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-003A	26071205-003C	7/24/2026 10:43:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-004A	26071205-004C	7/24/2026 10:08:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-005A	26071205-005C	7/24/2026 11:35:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-006A	26071205-006C	7/24/2026 10:19:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-007A	26071205-007C	7/27/2026 11:47:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-008A	26071205-008C	7/27/2026 1:43:00 PM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM

Original

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DATES REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26080027-008A	26071205-008C	7/27/2026 1:43:00 PM	Non-Potable Water	Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-009A	26071205-009C	7/22/2026 12:01:00 PM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-010A	26071205-010C	7/27/2026 11:00:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-011A	26071205-011C	7/23/2026 1:36:00 PM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-012A	26071205-012C	7/27/2026 12:15:00 PM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-013A	26071205-013C	7/27/2026 10:50:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-014A	26071205-014C	7/27/2026 10:15:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-015A	26071205-015C	7/23/2026 9:53:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-016A	26071205-016C	7/27/2026 12:57:00 PM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM

Original

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DATES REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26080027-016A	26071205-016C	7/27/2026 12:57:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-017A	26071205-017C	7/27/2026 11:30:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080027-018A	26071205-018C	7/27/2026 12:24:00 PM		Combined Radium (EPA903+904)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM
				Radium-226 (EPA 903.0)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM
				Radium-228 (EPA 904.0)		8/8/2026 10:03:00 AM	8/14/2026 1:33:00 PM
26080027-019A	26071205-019C	7/27/2026 1:06:00 PM		Combined Radium (EPA903+904)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM
				Radium-226 (EPA 903.0)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM
				Radium-228 (EPA 904.0)		8/8/2026 10:03:00 AM	8/14/2026 1:33:00 PM
26080027-020A	26071205-020C	7/27/2026 1:28:00 PM		Combined Radium (EPA903+904)		8/18/2026 9:51:00 AM	8/25/2026 9:44:41 AM
				Radium-226 (EPA 903.0)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM
				Radium-228 (EPA 904.0)		8/18/2026 9:51:00 AM	8/24/2026 2:05:23 PM
				Radium-228 (EPA 904.0)		8/8/2026 10:03:00 AM	8/14/2026 1:33:00 PM
26080027-021A	26071205-021C	7/27/2026 10:05:00 AM		Combined Radium (EPA903+904)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM
				Radium-226 (EPA 903.0)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM
				Radium-228 (EPA 904.0)		8/8/2026 10:03:00 AM	8/14/2026 1:33:00 PM
26080027-022A	26071205-022C	7/22/2026 10:50:00 AM		Combined Radium (EPA903+904)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM
				Radium-226 (EPA 903.0)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM
				Radium-228 (EPA 904.0)		8/8/2026 10:03:00 AM	8/14/2026 1:33:00 PM
26080027-023A	26071205-023C	7/23/2026 12:12:00 PM		Combined Radium (EPA903+904)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM
				Radium-226 (EPA 903.0)		8/8/2026 10:03:00 AM	8/15/2026 9:57:00 AM

Original

Alliance Technical Group - Akron
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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

DATES REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26080027-023A	26071205-023C	7/23/2026 12:12:00 PM	Non-Potable Water	Radium-228 (EPA 904.0)		8/8/2026 10:03:00 AM	8/14/2026 1:33:00 PM

Original

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QC SUMMARY REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205

BatchID: **101684**

Sample ID: **26080027-018ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/8/2026**	RunNo: **247669**
Client ID: **26071205-018C**	Batch ID: **101684**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/14/2026**	SeqNo: **6370324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.65	1.00		0	0			0.8800	60.9	20	R
Yield	0.630			0	0			1.000	45.4		

Sample ID: **26080027-019ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/8/2026**	RunNo: **247669**
Client ID: **26071205-019C**	Batch ID: **101684**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/14/2026**	SeqNo: **6370327**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			1.870	200	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205 **BatchID:** **101684**

Sample ID: **MB-101684**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/8/2026**	RunNo: **247669**
Client ID: **BatchQC**	Batch ID: **101684**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/14/2026**	SeqNo: **6370319**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-101684**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/8/2026**	RunNo: **247669**
Client ID: **BatchQC**	Batch ID: **101684**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/14/2026**	SeqNo: **6370320**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.53	1.00	5.000	0	70.6	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-101684**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/8/2026**	RunNo: **247669**
Client ID: **BatchQC**	Batch ID: **101684**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/14/2026**	SeqNo: **6370321**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.73	1.00	5.000	0	94.6	50	130	3.530	29.1	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205

BatchID: **101684**

Sample ID: **26080027-018ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/8/2026**	RunNo: **247673**
Client ID: **26071205-018C**	Batch ID: **101684**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/15/2026**	SeqNo: **6370416**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							0.9600	4.08	0	

Sample ID: **26080027-019ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/8/2026**	RunNo: **247673**
Client ID: **26071205-019C**	Batch ID: **101684**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/15/2026**	SeqNo: **6370418**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205

BatchID: **101684**

Sample ID: **MB-101684**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/8/2026**	RunNo: **247673**
Client ID: **BatchQC**	Batch ID: **101684**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/15/2026**	SeqNo: **6370408**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-101684**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/8/2026**	RunNo: **247673**
Client ID: **BatchQC**	Batch ID: **101684**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/15/2026**	SeqNo: **6370409**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.06	1.00	5.000	0	101	70	130				

Sample ID: **LCSD-101684**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/8/2026**	RunNo: **247673**
Client ID: **BatchQC**	Batch ID: **101684**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/15/2026**	SeqNo: **6370410**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.10	1.00	5.000	0	102	70	130	5.060	0.787	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205 **BatchID:** **101685**

Sample ID: **LCS-101685** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/7/2026** RunNo: **247655**
Client ID: **BatchQC** Batch ID: **101685** TestNo: **E904.0** **E903-904** Analysis Date: **8/12/2026** SeqNo: **6369984**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.59	1.00	5.000	0	91.8	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-101685** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/7/2026** RunNo: **247655**
Client ID: **BatchQC** Batch ID: **101685** TestNo: **E904.0** **E903-904** Analysis Date: **8/12/2026** SeqNo: **6369985**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.13	1.00	5.000	0	62.6	50	130	4.590	37.8	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **26080026-006ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/7/2026** RunNo: **247655**
Client ID: **BatchQC** Batch ID: **101685** TestNo: **E904.0** **E903-904** Analysis Date: **8/12/2026** SeqNo: **6369989**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.38	1.00		0	0			0.9300	87.6	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **26080026-007ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/7/2026** RunNo: **247655**
Client ID: **BatchQC** Batch ID: **101685** TestNo: **E904.0** **E903-904** Analysis Date: **8/12/2026** SeqNo: **6369992**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.54	1.00		0	0			0.9000	52.5	20	R

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205 **BatchID:** **101685**

Sample ID: **26080026-007ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247655**
Client ID: **BatchQC**	Batch ID: **101685**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/12/2026**	SeqNo: **6369992**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Yield	1.00			0	0			0.9300	7.25		

Sample ID: **MB-101685**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247655**
Client ID: **BatchQC**	Batch ID: **101685**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/12/2026**	SeqNo: **6370010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.980			0	0						

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205 **BatchID:** **101685**

Sample ID: **MB-101685**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247656**
Client ID: **BatchQC**	Batch ID: **101685**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/13/2026**	SeqNo: **6370070**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-101685**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247656**
Client ID: **BatchQC**	Batch ID: **101685**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/13/2026**	SeqNo: **6370071**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.97	1.00	5.000	0	99.4	70	130				

Sample ID: **LCSD-101685**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247656**
Client ID: **BatchQC**	Batch ID: **101685**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/13/2026**	SeqNo: **6370072**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.53	1.00	5.000	0	111	70	130	4.970	10.7	20	

Sample ID: **26080026-006ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247656**
Client ID: **BatchQC**	Batch ID: **101685**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/13/2026**	SeqNo: **6370077**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205

BatchID: **101685**

Sample ID: **26080026-007ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **8/7/2026** RunNo: **247656**
Client ID: **BatchQC** Batch ID: **101685** TestNo: **E903.0** **E903-904** Analysis Date: **8/13/2026** SeqNo: **6370079**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205 **BatchID:** **101953**

Sample ID: **MB-101953**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/18/2026**	RunNo: **248302**
Client ID: **BatchQC**	Batch ID: **101953**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/24/2026**	SeqNo: **6387954**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.930			0	0						

Sample ID: **LCS-101953**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/18/2026**	RunNo: **248302**
Client ID: **BatchQC**	Batch ID: **101953**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/24/2026**	SeqNo: **6387955**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.30	1.00	5.000	0	86.0	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-101953**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/18/2026**	RunNo: **248302**
Client ID: **BatchQC**	Batch ID: **101953**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/24/2026**	SeqNo: **6387956**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.72	1.00	5.000	0	74.4	50	130	4.300	14.5	20	
Yield	1.00			0	0			1.000	0		

Sample ID: **26081144-003ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/18/2026**	RunNo: **248302**
Client ID: **BatchQC**	Batch ID: **101953**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/24/2026**	SeqNo: **6387969**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.67	1.00		0	0			1.420	16.2	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **26080027**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071205

BatchID: **101953**

Sample ID: **26081144-003ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/18/2026**	RunNo: **248302**
Client ID: **BatchQC**	Batch ID: **101953**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/24/2026**	SeqNo: **6387969**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

26080027

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: Sampler: Client QC Level: 2

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc.
Batch QC and standard EDD are required. State of Sample Origin = MO

Project# 26071205

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 41654 Phone: (618) 344-1004 ext. 1024

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Combined Radium			PH	cpm	PH	cpm	PH	cpm	PH	cpm
	26071205-001C	7/24/2026 10:38	☐	☑	☐	☐	☐	Groundwater	✔	✔			1	10	4 1	22	7 1	22	10 1	32
	26071205-002C	7/27/2026 11:13	☐	☑	☐	☐	☐	Groundwater	✔	✔			1	12	1	60	1	20	1	26
	26071205-003C	7/24/2026 10:43	☐	☑	☐	☐	☐	Groundwater	✔	✔			1	13	1	50	1	24	1	30
	26071205-004C	7/24/2026 10:08	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	19	5 2	33	8 1	26	11 1	32
	26071205-005C	7/24/2026 11:35	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	12	1	42	1	22	1	24
	26071205-006C	7/24/2026 10:19	☐	☑	☐	☐	☐	Groundwater	✔	✔			2	20	1	25	1	22	1	40
	26071205-007C	7/27/2026 11:47	☐	☑	☐	☐	☐	Groundwater	✔	✔			3 1	16	6 1	20	9 1	24		
	26071205-008C	7/27/2026 13:43	☐	☑	☐	☐	☐	Groundwater	✔	✔			1	20	1	33	1	26		
	26071205-009C	7/22/2026 12:01	☐	☑	☐	☐	☐	Groundwater	✔	✔			1	22	1	26	1	30		
	26071205-010C	7/27/2026 11:00	☐	☑	☐	☐	☐	Groundwater	✔	✔										
	26071205-011C	7/23/2026 13:36	☐	☑	☐	☐	☐	~~Aqueous~~ GW	✔	✔										

TE Orm 7/28/26

*Relinquished By	Date/Time	Received By	Date/Time
Mike Moore	7/28/26 17:00	Paul Garcia	7/31/26 10:30
			FedEx

Temp: 2.2 °C (23.6 °F)

Teklab maintains a strict policy of client confidentiality and as such does not provide sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: Sampler: Client QC Level: 2

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc.
Batch QC and standard EDD are required. State of Sample Origin = MO

Project# 26071205

Contact: Shelly Hennessy Email: shennessy @TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 41654 Phone: (618) 344-1004 ext. 1024

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Combined Radium			PH	cpm	PH	cpm	PH	cpm	PH	cpm
	26071205-012C	7/27/2026 12:15	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	(12) 1	32	(15) 2	24	(18) 2	56	(21) 1	24
	26071205-013C	7/27/2026 10:50	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	30	2	26	2	42	1	20
	26071205-014C	7/27/2026 10:15	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	34	2	30	2	40	1	22
	26071205-015C	7/23/2026 09:53	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	(13) 1	26	(16) 2	22	(19) 1	32	(22) 1	22
	26071205-016C	7/27/2026 12:57	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	24	1	32	1	46	1	26
	26071205-017C	7/27/2026 11:30	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	30	2	30	1	42	2	24
	26071205-018C	7/27/2026 12:24	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	(14) 1	20	(17) 1	36	(20) 1	30		
	26071205-019C	7/27/202613:06	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	22	1	36	1	32		
	26071205-020C	7/27/2026 13:28	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	22	1	30	1	36		
	26071205-021C	7/27/2026 10:05	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐								
	26071205-022C	7/22/2026 10:50	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐								

*Relinquished By	Date/Time	Received By	Date/Time
Mylie Moore	7/28/26 17:00	Paige Gloria	7/31/26 10:30
			Fedex

Temp: 23.7°C
(23.6+0.1)

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: | Sampler: Client | QC Level: 2

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc.
Batch QC and standard EDD are required. State of Sample Origin = MO

Project# 26071205

Contact: Shelly Hennessy | Email: shennessy @TekLabInc.com
Requested Due Date: Standard TAT | Billing/PO: 41654 | Phone: (618) 344-1004 ext. 1024

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Combined Radium			PH	cRa								
	26071205-023C	7/23/2026 12:12	☐	☑	☐	☐	☐	Groundwater	✔	✔	☐	☐	1	24	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	1	36	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	1	30	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

*Relinquished By	Date/Time	Received By	Date/Time
Kylie Moore	7/28/26 17:00	Paige Coffman	7/31/26 10:30
			Frdrk

Temp: 23.7°C (23.6 fg.)

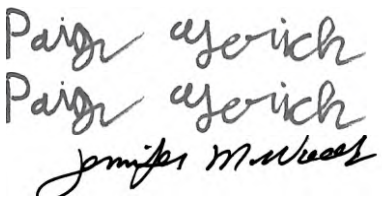
Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization, and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **26080027** RcptNo: **1**

Logged by:	**Paige J. Yerick**	**7/31/2026 10:30:00 AM**
Completed By:	**Paige J. Yerick**	**8/1/2026 6:09:43 PM**
Reviewed By:	**Jennifer Woolf**	**8/5/2026 7:39:11 PM**



Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐ NA ☐
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	23.7	Good	Yes			

August 31, 2026

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100467
Kansas	E-10374
Kansas	E-10438
Louisiana	05002
Oklahoma	9978

RE: FGDS Landfill **WorkOrder:** 26071206

Dear Eric Staley:

TEKLAB, INC received 8 samples on 7/27/2026 3:20:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 26071206
Client Project: FGDS Landfill
Report Date: 31-Aug-26

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	22
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 26071206

Client Project: FGDS Landfill **Report Date:** 31-Aug-26

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
A	Total Coliform and/or E. Coli (Result) is absent
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
P	Total Coliform and/or E. Coli (Result) is present
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
S	Opinion for Colisure analysis is Satisfactory
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
T.O.P.	Top of Pump
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)
U	Opinion for Colisure analysis is Unsatisfactory

Definitions

Client: City Water, Light & Power
Work Order: 26071206
Client Project: FGDS Landfill
Report Date: 31-Aug-26

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 26071206
Report Date: 31-Aug-26

Cooler Receipt Temp: 22.9 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Alliance Technical Group. See attached report for results.

Locations

Collinsville

Address 120 United Drive
Collinsville, IL 62234-7433
Phone (618) 344-1004
Fax
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 26071206

Client Project: FGDS Landfill

Report Date: 31-Aug-26

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100467	NELAP	1/31/2027	Collinsville
Kansas	KDHE	E-10438	NELAP	7/31/2026	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2027	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2027	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2026	Collinsville
Arkansas	ADEQ	88-0966		3/14/2027	Collinsville
Illinois	IDPH	17584		5/31/2027	Collinsville
Iowa	IDNR	430		6/1/2028	Collinsville
Kansas	KDHE	E-92716		1/31/2027	Collinsville
Kentucky	KWLCP	KY98050		12/31/2026	Collinsville
Kentucky	KWLCP	KY98006		12/31/2026	Collinsville
Kentucky	UST	0073		1/31/2027	Collinsville
Louisiana	LDEQ	05003		6/30/2026	Collinsville
Mississippi	MSDH			4/30/2026	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2028	Collinsville

Client: City Water, Light & Power **Work Order:** 26071206

Client Project: FGDS Landfill **Report Date:** 31-Aug-26

Lab ID: 26071206-001 **Client Sample ID:** R101

Matrix: GROUNDWATER **Collection Date:** 07/22/2026 13:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**511.53**	ft	1	07/22/2026 13:14	R388348
Depth to water	*	-5.00		**3.66**	ft	1	07/22/2026 13:14	R388348
Depth to water from measuring point	*	0		**6.46**	ft	1	07/22/2026 13:14	R388348
Elevation of groundwater surface	*	0		**540.34**	ft	1	07/22/2026 13:14	R388348
Measuring Point Elevation	*	0		**546.80**	ft	1	07/22/2026 13:14	R388348
Measuring Point Height Above Land Surface	*	0		**2.80**	ft	1	07/22/2026 13:14	R388348
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.6**	NTU	1	07/22/2026 13:14	R388348
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**62.2**	°F	1	07/22/2026 13:14	R388348
SW-846 9040B								
pH, Field	*	1.00		**7.06**		1	07/22/2026 13:14	R388348
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1290**	µmhos/cm @25C	1	07/22/2026 13:14	R388348
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**972**	mg/L	1	07/23/2026 13:35	R387989
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 21:10	R388408
Chloride	NELAP	5.00		**111**	mg/L	10	08/03/2026 21:10	R388408
Sulfate	NELAP	10.0		**265**	mg/L	10	08/03/2026 21:10	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.290**	mg/L	1	07/28/2026 18:14	260025
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/28/2026 18:14	260025
Boron	NELAP	0.0200		**0.140**	mg/L	1	07/28/2026 18:14	260025
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/28/2026 18:14	260025
Calcium	NELAP	0.100		**142**	mg/L	1	07/28/2026 18:14	260025
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/28/2026 18:14	260025
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/28/2026 18:14	260025
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	07/28/2026 18:14	260025
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/28/2026 18:14	260025
Cd -CCV recovered outside the upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 22:53	260025
Arsenic	NELAP	0.0010		**0.0018**	mg/L	5	08/01/2026 0:27	260025
Lithium	*	0.0030		**0.0149**	mg/L	5	07/30/2026 18:02	260025
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/01/2026 0:27	260025
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/29/2026 22:53	260025
LCS recovered outside upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/23/2026 10:28	260026
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/22/2026 9:55	R389872
Combined 226/228 Uncertainty	*	0		**0.960**	+/-	1	08/22/2026 9:55	R389872
Radium-226	*	1.00		**ND**	pci/L	1	08/22/2026 9:55	R389872
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	08/22/2026 9:55	R389872

Client: City Water, Light & Power
Work Order: 26071206
Client Project: FGDS Landfill
Report Date: 31-Aug-26
Lab ID: 26071206-001
Client Sample ID: R101
Matrix: GROUNDWATER
Collection Date: 07/22/2026 13:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	1.00		**1.42**	pci/L	1	08/21/2026 14:42	R389872
Radium-228 Uncertainty	*	0		**0.890**	+/-	1	08/21/2026 14:42	R389872

Client: City Water, Light & Power **Work Order:** 26071206

Client Project: FGDS Landfill **Report Date:** 31-Aug-26

Lab ID: 26071206-002 **Client Sample ID:** G121

Matrix: GROUNDWATER **Collection Date:** 07/23/2026 12:52

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.04**	ft	1	07/23/2026 12:52	R388348
Depth to water	*	-5.00		**25.97**	ft	1	07/23/2026 12:52	R388348
Depth to water from measuring point	*	0		**27.84**	ft	1	07/23/2026 12:52	R388348
Elevation of groundwater surface	*	0		**527.76**	ft	1	07/23/2026 12:52	R388348
Measuring Point Elevation	*	0		**555.60**	ft	1	07/23/2026 12:52	R388348
Measuring Point Height Above Land Surface	*	0		**1.87**	ft	1	07/23/2026 12:52	R388348
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.4**	NTU	1	07/23/2026 12:52	R388348
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**60.6**	°F	1	07/23/2026 12:52	R388348
SW-846 9040B								
pH, Field	*	1.00		**6.96**		1	07/23/2026 12:52	R388348
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1560**	µmhos/cm @25C	1	07/23/2026 12:52	R388348
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1130**	mg/L	1	07/24/2026 10:33	R388043
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 20:17	R388053
Chloride	NELAP	5.00		**28.7**	mg/L	10	07/27/2026 20:17	R388053
Sulfate	NELAP	10.0		**326**	mg/L	10	07/27/2026 20:17	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.633**	mg/L	1	07/27/2026 17:02	260103
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/27/2026 17:02	260103
Boron	NELAP	0.0200		**3.83**	mg/L	1	07/27/2026 17:02	260103
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/27/2026 17:02	260103
Calcium	NELAP	0.100		**186**	mg/L	1	07/27/2026 17:02	260103
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/27/2026 17:02	260103
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/27/2026 17:02	260103
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	07/27/2026 17:02	260103
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/27/2026 17:02	260103
Sample result(s) for Ba exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 21:16	260103
Arsenic	NELAP	0.0010		**0.0177**	mg/L	5	08/01/2026 1:59	260103
Lithium	*	0.0030		**0.0086**	mg/L	5	07/29/2026 21:16	260103
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 21:16	260103
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/29/2026 21:16	260103
LCS recovered outside upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/27/2026 9:39	260102
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/22/2026 9:55	R389872
Combined 226/228 Uncertainty	*	0		**0.840**	+/-	1	08/22/2026 9:55	R389872
Radium-226	*	1.00		**ND**	pci/L	1	08/22/2026 9:55	R389872
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	08/22/2026 9:55	R389872

Client: City Water, Light & Power
Work Order: 26071206
Client Project: FGDS Landfill
Report Date: 31-Aug-26
Lab ID: 26071206-002
Client Sample ID: G121
Matrix: GROUNDWATER
Collection Date: 07/23/2026 12:52

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	1.00		**ND**	pci/L	1	08/21/2026 14:42	R389872
Radium-228 Uncertainty	*	0		**0.780**	+/-	1	08/21/2026 14:42	R389872

Client: City Water, Light & Power **Work Order:** 26071206

Client Project: FGDS Landfill **Report Date:** 31-Aug-26

Lab ID: 26071206-003 **Client Sample ID:** G122

Matrix: GROUNDWATER **Collection Date:** 07/24/2026 9:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**505.11**	ft	1	07/24/2026 9:55	R388348
Depth to water	*	-5.00		**26.16**	ft	1	07/24/2026 9:55	R388348
Depth to water from measuring point	*	0		**27.90**	ft	1	07/24/2026 9:55	R388348
Elevation of groundwater surface	*	0		**526.50**	ft	1	07/24/2026 9:55	R388348
Measuring Point Elevation	*	0		**554.40**	ft	1	07/24/2026 9:55	R388348
Measuring Point Height Above Land Surface	*	0		**1.74**	ft	1	07/24/2026 9:55	R388348
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**2.0**	NTU	1	07/24/2026 9:55	R388348
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**58.7**	°F	1	07/24/2026 9:55	R388348
SW-846 9040B								
pH, Field	*	1.00		**6.54**		1	07/24/2026 9:55	R388348
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1860**	µmhos/cm @25C	1	07/24/2026 9:55	R388348
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1490**	mg/L	1	07/27/2026 9:22	R388126
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 20:55	R388053
Chloride	NELAP	5.00		**38.3**	mg/L	10	07/27/2026 20:55	R388053
Sulfate	NELAP	10.0		**572**	mg/L	10	07/27/2026 20:55	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.433**	mg/L	1	07/27/2026 17:03	260103
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/27/2026 17:03	260103
Boron	NELAP	0.0200		**11.2**	mg/L	1	07/27/2026 17:03	260103
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/27/2026 17:03	260103
Calcium	NELAP	0.100		**233**	mg/L	1	07/27/2026 17:03	260103
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/27/2026 17:03	260103
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/27/2026 17:03	260103
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	07/27/2026 17:03	260103
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/27/2026 17:03	260103
Sample result(s) for Ba exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 21:20	260103
Arsenic	NELAP	0.0010		**0.0031**	mg/L	5	08/01/2026 2:04	260103
Lithium	*	0.0030		**0.0077**	mg/L	5	07/29/2026 21:20	260103
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 21:20	260103
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/29/2026 21:20	260103
LCS recovered outside upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/28/2026 10:09	260142
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/22/2026 9:55	R389872
Combined 226/228 Uncertainty	*	0		**0.960**	+/-	1	08/22/2026 9:55	R389872
Radium-226	*	1.00		**ND**	pci/L	1	08/22/2026 9:55	R389872
Radium-226 Uncertainty	*	0		**0.040**	+/-	1	08/22/2026 9:55	R389872

Client: City Water, Light & Power
Work Order: 26071206
Client Project: FGDS Landfill
Report Date: 31-Aug-26
Lab ID: 26071206-003
Client Sample ID: G122
Matrix: GROUNDWATER
Collection Date: 07/24/2026 9:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	1.00		**1.31**	pci/L	1	08/21/2026 14:42	R389872
Radium-228 Uncertainty	*	0		**0.920**	+/-	1	08/21/2026 14:42	R389872

Client: City Water, Light & Power **Work Order:** 26071206

Client Project: FGDS Landfill **Report Date:** 31-Aug-26

Lab ID: 26071206-004 **Client Sample ID:** AW-2

Matrix: GROUNDWATER **Collection Date:** 07/23/2026 10:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**497.34**	ft	1	07/23/2026 10:58	R388348
Depth to water	*	-5.00		**-0.09**	ft	1	07/23/2026 10:58	R388348
Depth to water from measuring point	*	0		**3.21**	ft	1	07/23/2026 10:58	R388348
Elevation of groundwater surface	*	0		**526.77**	ft	1	07/23/2026 10:58	R388348
Measuring Point Elevation	*	0		**529.98**	ft	1	07/23/2026 10:58	R388348
Measuring Point Height Above Land Surface	*	0		**3.30**	ft	1	07/23/2026 10:58	R388348
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.7**	NTU	1	07/23/2026 10:58	R388348
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.9**	°F	1	07/23/2026 10:58	R388348
SW-846 9040B								
pH, Field	*	1.00		**6.90**		1	07/23/2026 10:58	R388348
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1240**	µmhos/cm @25C	1	07/23/2026 10:58	R388348
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**792**	mg/L	1	07/24/2026 10:33	R388043
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 21:07	R388053
Chloride	NELAP	5.00		**25.7**	mg/L	10	07/27/2026 21:07	R388053
Sulfate	NELAP	10.0		**138**	mg/L	10	07/27/2026 21:07	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.440**	mg/L	1	07/27/2026 17:05	260103
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/27/2026 17:05	260103
Boron	NELAP	0.0200		**2.58**	mg/L	1	07/27/2026 17:05	260103
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/27/2026 17:05	260103
Calcium	NELAP	0.100		**154**	mg/L	1	07/27/2026 17:05	260103
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/27/2026 17:05	260103
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/27/2026 17:05	260103
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	07/27/2026 17:05	260103
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/27/2026 17:05	260103
Sample result(s) for Ba exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 21:24	260103
Arsenic	NELAP	0.0010		**0.0098**	mg/L	5	08/01/2026 2:08	260103
Lithium	*	0.0030		**0.0071**	mg/L	5	07/29/2026 21:24	260103
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 21:24	260103
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/29/2026 21:24	260103
LCS recovered outside upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/27/2026 9:41	260102
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/22/2026 9:55	R389872
Combined 226/228 Uncertainty	*	0		**0.930**	+/-	1	08/22/2026 9:55	R389872
Radium-226	*	1.00		**ND**	pci/L	1	08/22/2026 9:55	R389872
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	08/22/2026 9:55	R389872

Client: City Water, Light & Power
Work Order: 26071206
Client Project: FGDS Landfill
Report Date: 31-Aug-26
Lab ID: 26071206-004
Client Sample ID: AW-2
Matrix: GROUNDWATER
Collection Date: 07/23/2026 10:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	1.00		**1.27**	pci/L	1	08/21/2026 14:42	R389872
Radium-228 Uncertainty	*	0		**0.860**	+/-	1	08/21/2026 14:42	R389872

Client: City Water, Light & Power **Work Order:** 26071206

Client Project: FGDS Landfill **Report Date:** 31-Aug-26

Lab ID: 26071206-005 **Client Sample ID:** P07D

Matrix: GROUNDWATER **Collection Date:** 07/23/2026 11:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.71**	ft	1	07/23/2026 11:38	R388348
Depth to water	*	-5.00		**-0.16**	ft	1	07/23/2026 11:38	R388348
Depth to water from measuring point	*	0		**2.84**	ft	1	07/23/2026 11:38	R388348
Elevation of groundwater surface	*	0		**525.41**	ft	1	07/23/2026 11:38	R388348
Measuring Point Elevation	*	0		**528.25**	ft	1	07/23/2026 11:38	R388348
Measuring Point Height Above Land Surface	*	0		**3.00**	ft	1	07/23/2026 11:38	R388348
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.6**	NTU	1	07/23/2026 11:38	R388348
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**59.9**	°F	1	07/23/2026 11:38	R388348
SW-846 9040B								
pH, Field	*	1.00		**6.85**		1	07/23/2026 11:38	R388348
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1470**	µmhos/cm @25C	1	07/23/2026 11:38	R388348
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1080**	mg/L	1	07/24/2026 10:33	R388043
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 21:20	R388053
Chloride	NELAP	5.00		**30.1**	mg/L	10	07/27/2026 21:20	R388053
Sulfate	NELAP	10.0		**298**	mg/L	10	07/27/2026 21:20	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.743**	mg/L	1	07/27/2026 17:06	260103
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/27/2026 17:06	260103
Boron	NELAP	0.0200		**4.43**	mg/L	1	07/27/2026 17:06	260103
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/27/2026 17:06	260103
Calcium	NELAP	0.100		**174**	mg/L	1	07/27/2026 17:06	260103
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/27/2026 17:06	260103
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/27/2026 17:06	260103
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	07/27/2026 17:06	260103
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/27/2026 17:06	260103
Sample result(s) for Ba exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 21:28	260103
Arsenic	NELAP	0.0010		**0.0305**	mg/L	5	08/01/2026 2:12	260103
Lithium	*	0.0030		**0.0089**	mg/L	5	07/29/2026 21:28	260103
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 21:28	260103
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/29/2026 21:28	260103
LCS recovered outside upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/27/2026 9:47	260102
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/22/2026 9:55	R389872
Combined 226/228 Uncertainty	*	0		**0.760**	+/-	1	08/22/2026 9:55	R389872
Radium-226	*	1.00		**ND**	pci/L	1	08/22/2026 9:55	R389872
Radium-226 Uncertainty	*	0		**0.070**	+/-	1	08/22/2026 9:55	R389872

Client: City Water, Light & Power
Work Order: 26071206
Client Project: FGDS Landfill
Report Date: 31-Aug-26
Lab ID: 26071206-005
Client Sample ID: P07D
Matrix: GROUNDWATER
Collection Date: 07/23/2026 11:38

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	1.00		**ND**	pci/L	1	08/21/2026 14:42	R389872
Radium-228 Uncertainty	*	0		**0.690**	+/-	1	08/21/2026 14:42	R389872

Client: City Water, Light & Power **Work Order:** 26071206

Client Project: FGDS Landfill **Report Date:** 31-Aug-26

Lab ID: 26071206-006 **Client Sample ID:** AW-4

Matrix: GROUNDWATER **Collection Date:** 07/27/2026 13:39

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**495.89**	ft	1	07/27/2026 13:39	R388348
Depth to water	*	-5.00		**22.77**	ft	1	07/27/2026 13:39	R388348
Depth to water from measuring point	*	0		**22.44**	ft	1	07/27/2026 13:39	R388348
Elevation of groundwater surface	*	0		**530.12**	ft	1	07/27/2026 13:39	R388348
Measuring Point Elevation	*	0		**552.56**	ft	1	07/27/2026 13:39	R388348
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	07/27/2026 13:39	R388348
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**110**	NTU	1	07/27/2026 13:39	R388348
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**67.1**	°F	1	07/27/2026 13:39	R388348
SW-846 9040B								
pH, Field	*	1.00		**6.89**		1	07/27/2026 13:39	R388348
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1000**	µmhos/cm @25C	1	07/27/2026 13:39	R388348
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**602**	mg/L	1	07/28/2026 9:21	R388191
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 21:22	R388408
Chloride	NELAP	5.00		**23.7**	mg/L	10	08/03/2026 21:22	R388408
Sulfate	NELAP	10.0		**15.0**	mg/L	10	08/03/2026 21:22	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.317**	mg/L	1	07/28/2026 16:34	260196
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/28/2026 16:34	260196
Boron	NELAP	0.0200		**0.202**	mg/L	1	07/28/2026 16:34	260196
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/28/2026 16:34	260196
Calcium	NELAP	0.100		**119**	mg/L	1	07/28/2026 16:34	260196
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/28/2026 16:34	260196
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/28/2026 16:34	260196
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	07/28/2026 16:34	260196
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/28/2026 16:34	260196
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0011**	mg/L	5	08/12/2026 11:50	261873
Arsenic	NELAP	0.0010		**0.0084**	mg/L	5	08/03/2026 20:38	260196
Lithium	*	0.0030		**0.0139**	mg/L	5	08/05/2026 18:07	260196
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/03/2026 20:38	260196
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	08/03/2026 20:38	260196
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/30/2026 11:47	260290
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389872
Combined 226/228 Uncertainty	*	0		**0.630**	+/-	1	08/13/2026 7:39	R389872
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389872
Radium-226 Uncertainty	*	0		**0.050**	+/-	1	08/13/2026 7:39	R389872
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389872
Radium-228 Uncertainty	*	0		**0.580**	+/-	1	08/12/2026 13:15	R389872

Client: City Water, Light & Power **Work Order:** 26071206

Client Project: FGDS Landfill **Report Date:** 31-Aug-26

Lab ID: 26071206-007 **Client Sample ID:** AW-5

Matrix: GROUNDWATER **Collection Date:** 07/23/2026 14:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**492.77**	ft	1	07/23/2026 14:28	R388348
Depth to water	*	-5.00		**23.92**	ft	1	07/23/2026 14:28	R388348
Depth to water from measuring point	*	0		**23.48**	ft	1	07/23/2026 14:28	R388348
Elevation of groundwater surface	*	0		**528.35**	ft	1	07/23/2026 14:28	R388348
Measuring Point Elevation	*	0		**551.83**	ft	1	07/23/2026 14:28	R388348
Measuring Point Height Above Land Surface	*	0		**0**	ft	1	07/23/2026 14:28	R388348
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**130**	NTU	1	07/23/2026 14:28	R388348
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**61.7**	°F	1	07/23/2026 14:28	R388348
SW-846 9040B								
pH, Field	*	1.00		**6.96**		1	07/23/2026 14:28	R388348
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**1080**	µmhos/cm @25C	1	07/23/2026 14:28	R388348
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**646**	mg/L	1	07/24/2026 10:33	R388043
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	07/27/2026 21:33	R388053
Chloride	NELAP	5.00		**23.9**	mg/L	10	07/27/2026 21:33	R388053
Sulfate	NELAP	10.0		**23.0**	mg/L	10	07/27/2026 21:33	R388053
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025	B	**0.289**	mg/L	1	07/27/2026 17:08	260103
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/27/2026 17:08	260103
Boron	NELAP	0.0200		**0.220**	mg/L	1	07/27/2026 17:08	260103
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/27/2026 17:08	260103
Calcium	NELAP	0.100		**114**	mg/L	1	07/27/2026 17:08	260103
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/27/2026 17:08	260103
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/27/2026 17:08	260103
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	07/27/2026 17:08	260103
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/27/2026 17:08	260103
Sample result(s) for Ba exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 21:33	260103
Arsenic	NELAP	0.0010		**0.0096**	mg/L	5	08/01/2026 2:37	260103
Lithium	*	0.0030		**0.0196**	mg/L	5	07/29/2026 21:33	260103
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	07/30/2026 17:07	260103
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/29/2026 21:33	260103
LCS recovered outside upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/27/2026 9:49	260102
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**ND**	pci/L	1	08/13/2026 7:39	R389872
Combined 226/228 Uncertainty	*	0		**0.640**	+/-	1	08/13/2026 7:39	R389872
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389872
Radium-226 Uncertainty	*	0		**0.060**	+/-	1	08/13/2026 7:39	R389872

Client: City Water, Light & Power
Work Order: 26071206
Client Project: FGDS Landfill
Report Date: 31-Aug-26
Lab ID: 26071206-007
Client Sample ID: AW-5
Matrix: GROUNDWATER
Collection Date: 07/23/2026 14:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	1.00		**ND**	pci/L	1	08/12/2026 13:15	R389872
Radium-228 Uncertainty	*	0		**0.580**	+/-	1	08/12/2026 13:15	R389872

Client: City Water, Light & Power **Work Order:** 26071206

Client Project: FGDS Landfill **Report Date:** 31-Aug-26

Lab ID: 26071206-008 **Client Sample ID:** AW-6

Matrix: GROUNDWATER **Collection Date:** 07/22/2026 11:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		**493.67**	ft	1	07/22/2026 11:27	R388348
Depth to water	*	-5.00		**-1.38**	ft	1	07/22/2026 11:27	R388348
Depth to water from measuring point	*	0		**1.06**	ft	1	07/22/2026 11:27	R388348
Elevation of groundwater surface	*	0		**526.05**	ft	1	07/22/2026 11:27	R388348
Measuring Point Elevation	*	0		**527.11**	ft	1	07/22/2026 11:27	R388348
Measuring Point Height Above Land Surface	*	0		**2.44**	ft	1	07/22/2026 11:27	R388348
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**9.8**	NTU	1	07/22/2026 11:27	R388348
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**57.9**	°F	1	07/22/2026 11:27	R388348
SW-846 9040B								
pH, Field	*	1.00		**6.86**		1	07/22/2026 11:27	R388348
SW-846 9050A								
Spec. Conductance, Field	*	1.00		**2060**	µmhos/cm @25C	1	07/22/2026 11:27	R388348
STANDARD METHODS 2540 C (TOTAL) 2020								
Total Dissolved Solids	NELAP	20		**1240**	mg/L	1	07/23/2026 13:35	R387989
Stable weight could not be achieved after multiple cycles of drying, cooling, and weighing. Final weight is reported.								
SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY								
Fluoride	NELAP	0.50		**ND**	mg/L	10	08/03/2026 22:01	R388408
Chloride	NELAP	5.00		**415**	mg/L	10	08/03/2026 22:01	R388408
Sulfate	NELAP	10.0		**96.5**	mg/L	10	08/03/2026 22:01	R388408
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Barium	NELAP	0.0025		**0.898**	mg/L	1	07/28/2026 18:16	260025
Beryllium	NELAP	0.0005		**< 0.0005**	mg/L	1	07/28/2026 18:16	260025
Boron	NELAP	0.0200		**9.13**	mg/L	1	07/28/2026 18:16	260025
Cadmium	NELAP	0.0020		**< 0.0020**	mg/L	1	07/28/2026 18:16	260025
Calcium	NELAP	0.100		**231**	mg/L	1	07/28/2026 18:16	260025
Chromium	NELAP	0.0050		**< 0.0050**	mg/L	1	07/28/2026 18:16	260025
Cobalt	NELAP	0.0050		**< 0.0050**	mg/L	1	07/28/2026 18:16	260025
Lead	NELAP	0.0075		**< 0.0075**	mg/L	1	07/28/2026 18:16	260025
Molybdenum	NELAP	0.0100		**< 0.0100**	mg/L	1	07/28/2026 18:16	260025
Cd -CCV recovered outside the upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI standard.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	07/29/2026 22:57	260025
Arsenic	NELAP	0.0010		**0.0250**	mg/L	5	08/01/2026 0:31	260025
Lithium	*	0.0030		**0.0101**	mg/L	5	07/30/2026 18:06	260025
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	08/01/2026 0:31	260025
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	07/29/2026 22:57	260025
LCS recovered outside upper control limits for Tl. Sample results are below the reporting limit. Data is reportable per the TNI Standard.								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		**< 0.00020**	mg/L	1	07/23/2026 10:35	260026
EPA 903.0/904.0, RADIUM 226/228								
Combined 226/228	*	2.00		**2.64**	pci/L	1	08/13/2026 7:39	R389872
Combined 226/228 Uncertainty	*	0		**0.870**	+/-	1	08/13/2026 7:39	R389872
Radium-226	*	1.00		**ND**	pci/L	1	08/13/2026 7:39	R389872

Client: City Water, Light & Power
Work Order: 26071206
Client Project: FGDS Landfill
Report Date: 31-Aug-26
Lab ID: 26071206-008
Client Sample ID: AW-6
Matrix: GROUNDWATER
Collection Date: 07/22/2026 11:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226 Uncertainty	*	0		**0.080**	+/-	1	08/13/2026 7:39	R389872
Radium-228	*	1.00		**2.64**	pci/L	1	08/12/2026 13:15	R389872
Radium-228 Uncertainty	*	0		**0.790**	+/-	1	08/12/2026 13:15	R389872

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: FGDS Landfill

Work Order: 26071206
Report Date: 31-Aug-26

Carrier: Frank Barthol

Received By: CS

Completed by: Laura E Henson
On: 22-Jul-26

Reviewed by: Amber Dilallo
On: 27-Jul-26

Pages to follow: Chain of custody 4 Extra pages included 35

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 22.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

pH strip #104524. -CRS/ lhenson - 7/22/2026 4:15:45 PM

Samples G121, AW-2, P07D, and AW-5 were received on 7/23/26 at 16:20 on ice 22.1 C 22.7C - #9. pH strip #104524. Additional Nitric Acid (112051) was needed for G121 upon arrival at the laboratory. - JD/kmoore - 7/24/2026 9:14:33 AM

Sample G122 was received on 7/24/26 at 13:00 on ice [8.7 C, 14.5 C - LTG#9]. pH strip #104524. - JD/kmoore - 7/24/2026 1:53:49 PM

AW-4 was received on 7/27/2026 at 15:20 on ice [24.9 C - LTG#3]. pH strip #104524. - kmoore - 7/27/2026 4:10:13 PM

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 26071206

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 22.9 °C 9
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: PHV 104524 CRS 7.22.26

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Frank Bartholl

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
26071206-001	R101	7.22 | 1314	Groundwater	1	4								✓	✓	✓	✓	✓	✓
002	G121	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓
003	G122	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓
004	AW-2	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓
005	P07D	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓
006	AW-4	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓
007	AW-5	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓
008	AW-6	7.22 | 1127	Groundwater	1	4								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	7.22 | 1752 TE CRS 1552	Candice Spencer	7.22.26 1552

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 26071206

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

22.7, 22.1

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE ____ °C 9
Preserved in: [x] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: PH 104524
Added HNO3 (112051) 3/3 1 Liter GD JD 7/24/26

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [x] No
Are these samples known to be hazardous? [ ] Yes [x] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [x] Yes [ ] No Permit on file

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Frank Barthol

RESULTS REQUESTED
[x] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other ____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
26071206-001	R101	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓
002	G121	7.23 / 1252	Groundwater	1	4								✓	✓	✓	✓	✓	✓
003	G122	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓
004	AW-2	7.23 / 1058	Groundwater	1	4								✓	✓	✓	✓	✓	✓
005	P07D	7.23 / 1138	Groundwater	1	4								✓	✓	✓	✓	✓	✓
006	AW-4	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓
007	AW-5	7.23 / 1428	Groundwater	1	4								✓	✓	✓	✓	✓	✓
008	AW-6	—	Groundwater	1	4								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	7.23 / 1620		7/23/26 1620

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 26071206

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

8.7 14.5

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE ____ °C 9
Preserved in: [ ] LAB [X] FIELD FOR LAB USE ONLY
LAB NOTES: PH104524

JD 7/24 24

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Gb

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other ____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
26071206-001	R101		Groundwater	1	4								✓	✓	✓	✓	✓	✓
002	G121		Groundwater	1	4								✓	✓	✓	✓	✓	✓
003	G122	7-24 955	Groundwater	1	4								✓	✓	✓	✓	✓	✓
004	AW-2		Groundwater	1	4								✓	✓	✓	✓	✓	✓
005	P07D		Groundwater	1	4								✓	✓	✓	✓	✓	✓
006	AW-4		Groundwater	1	4								✓	✓	✓	✓	✓	✓
007	AW-5		Groundwater	1	4								✓	✓	✓	✓	✓	✓
008	AW-6		Groundwater	1	4								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	7-24 / 132		7/24/24 13:00

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

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CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 26071206

TEKLAB INC, 120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 2.9 °C
Preserved in: [ ] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: PW 104524 KM 7-27-26

Client Comments:
*elevations, pH, conductivity, temperature
**Sb As Se Li Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [✓] No
Are these samples known to be hazardous? [ ] Yes [✓] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [✓] Yes [ ] No Permit on file

PROJECT NAME/NUMBER
FGDS Landfill

SAMPLE COLLECTOR'S NAME
Justin Culp

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
26071206-001	R101		Groundwater	1	4								✓	✓	✓	✓	✓	✓
002	G121		Groundwater	1	4								✓	✓	✓	✓	✓	✓
003	G122		Groundwater	1	4								✓	✓	✓	✓	✓	✓
004	AW-2		Groundwater	1	4								✓	✓	✓	✓	✓	✓
005	P07D		Groundwater	1	4								✓	✓	✓	✓	✓	✓
006	AW-4	7-27 1339	Groundwater	1	4								✓	✓	✓	✓	✓	✓
007	AW-5		Groundwater	1	4								✓	✓	✓	✓	✓	✓
008	AW-6		Groundwater	1	4								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By	Date/Time	Received By	Date/Time
	7-27-1520		7-27-15:20

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	R101
Project Location:	Springfield, IL	**Sample ID:**	001
W.O. Number (s):	26071206	**Date (s):**	7/22/2026

Field Team Members

Name: Frank Barthol — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 76 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☐ Clear ☑ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/22/26 12:59 PM

Static Water Level: 6.46 feet below TOC

Total Depth: 35.27 feet below TOC

Water Column: 28.81 feet

Purging Activities

Purged By: FB — Purge Date: 7/22/2026

Purge Equipment: Peristaltic Pump — Well Diameter: 3"

Purge Volume Calculation (L): 28.81 ft. x 0.022 = 0.63 L x 3 Vol. = 1.89 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
12:59	0.0	200	purge start time						
12:59	0.0	↓	6.92	1,254.00	21.20	4.12	-49.70	19.12	7.82
13:02	0.6		7.00	1,287.00	17.30	1.24	-103.70	17.65	7.82
13:05	1.2		7.06	1,288.00	17.00	0.77	-116.00	63.74	7.83
13:08	1.8		7.06	1,287.00	16.80	0.77	-116.60	12.49	7.83
13:11	2.4		7.06	1,287.00	16.80	0.76	-116.80	5.96	7.83
13:14	3.0		7.06	1,287.00	16.80	0.75	-117.00	9.65	7.83

Sampling Activities

Sampled By: FB — Sample Date/Time: 7/22/2026 13:14

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 7.06 pH — 1,287.00 Spec. Cond. — 16.80 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 7.83 feet below TOC — Drawdown: 1.37 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By:  **Date:** 7/22/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G121
Project Location:	Springfield, IL	**Sample ID:**	002
W.O. Number (s):	26071206	**Date (s):**	7/23/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 73 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/23/26 12:31 PM

Static Water Level: 27.84 feet below TOC

Total Depth: 58.56 feet below TOC

Water Column: 30.72 feet

Purging Activities

Purged By: FB Purge Date: 7/23/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 30.72 ft. x 0.022 = 0.68 L x 3 Vol. = 2.04 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
12:31	0.0	190	purge start time						
12:31	0.0	↓	7.41	1,437.00	22.20	6.02	-72.10	20.34	28.04
12:34	0.6		7.11	1,506.00	15.90	1.05	-100.00	9.74	28.52
12:37	1.1		7.01	1,509.00	15.80	0.93	-127.20	14.71	28.61
12:40	1.7		6.97	1,546.00	15.90	0.83	-137.20	19.52	28.77
12:43	2.3		6.96	1,560.00	15.80	0.74	-139.10	19.29	28.9
12:46	2.9		6.96	1,559.00	15.80	0.71	-139.60	16.40	28.94
12:49	3.4		6.96	1,559.00	15.80	0.71	-139.60	7.86	28.94
12:52	4.0		6.96	1,559.00	15.90	0.71	-139.70	7.44	28.95

Sampling Activities

Sampled By: FB Sample Date/Time: 7/23/2026 12:52

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.96 pH 1,559.00 Spec. Cond. 15.90 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 29.01 feet below TOC Drawdown: 1.17 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By:  **Date:** 7/23/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	G122
Project Location:	Springfield, IL	**Sample ID:**	003
W.O. Number (s):	26071206	**Date (s):**	7/24/2026

Field Team Members

Name: Drew Nieters Affiliation: TekLab, Inc.

Name: Payton Yoch Affiliation: TekLab, Inc.

Weather Conditions

Temp: 71 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☐ Clear ☐ Partly Cloudy ☑ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/24/26 11:03 AM

Static Water Level: 27.90 feet below TOC

Total Depth: 49.29 feet below TOC

Water Column: 21.39 feet

Purging Activities

Purged By: DN Purge Date: 7/24/2026

Purge Equipment: Submersible Pump Well Diameter: 2"

Purge Volume Calculation (L): 21.39 ft. x 0.022 = 0.47 L x 3 Vol. = 1.41 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 10.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Clear

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
9:25	0.0	333	purge start time						
9:28	1.0	↓	6.55	1,561.00	15.10	3.68	10.50	24.64	28.44
9:31	2.0		6.54	1,852.30	14.69	2.58	-23.60	10.88	28.67
9:34	3.0		6.53	1,855.40	14.22	1.16	-94.00	1.44	28.91
9:37	4.0		6.53	1,858.90	14.17	1.15	-96.40	2.65	29.01
9:40	5.0		6.54	1,861.60	14.23	1.12	-98.90	1.63	29.12
9:43	6.0		6.54	1,862.70	14.38	1.10	-100.40	0.91	29.34
9:46	7.0		6.54	1,864.00	14.42	1.02	-102.30	0.71	29.4
9:49	8.0		6.54	1,865.70	14.37	0.92	-104.10	0.22	29.42
9:52	9.0		6.55	1,866.00	14.25	0.86	-105.50	0.45	29.4
9:55	10.0		6.54	1,864.30	14.83	0.84	-106.60	2.03	29.4

Sampling Activities

Sampled By: PY Sample Date/Time: 7/24/2026 9:55

Sample Method: Low Flow Sample Equipment: Submersible Pump

Sample Parameters: 6.54 pH 1,864.30 Spec. Cond. 14.83 Temp

Field Filtered: Yes Filter Type: Inline Disposable

Water Level: 29.40 feet below TOC Drawdown: 1.50 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51302

Form Completed By: Payton K Date: 7/24/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-2
Project Location:	Springfield, IL	**Sample ID:**	004
W.O. Number (s):	26071206	**Date (s):**	7/23/2026

Field Team Members

Name: Frank Barthol — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 71 °F — Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing	X	
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/23/26 10:40 AM

Static Water Level: 3.21 feet below TOC

Total Depth: 32.64 feet below TOC

Water Column: 29.43 feet

Purging Activities

Purged By: FB — Purge Date: 7/23/2026

Purge Equipment: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 29.43 ft. x 0.022 = 0.65 L x 3 Vol. = 1.95 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.50 L

Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
10:40	0.0	194	purge start time						
10:40	0.0	↓	7.38	1,335.00	22.20	5.55	-158.00	7.75	3.3
10:43	0.6		6.99	1,216.00	16.80	1.14	-123.90	13.17	3.3
10:46	1.2		6.93	1,235.00	16.70	0.84	-123.50	9.60	3.31
10:49	1.8		6.91	1,234.00	16.70	0.70	-122.50	10.48	3.31
10:52	2.3		6.90	1,236.00	18.70	0.63	-121.60	8.22	3.31
10:55	2.9		6.90	1,236.00	16.70	0.63	-121.50	8.47	3.31
10:58	3.5		6.90	1,237.00	16.60	0.62	-121.40	9.69	3.31

Sampling Activities

Sampled By: FB — Sample Date/Time: 7/23/2026 10:58

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.90 pH — 1,237.00 Spec. Cond. — 16.60 Temp

Field Filtered: Yes — Filter Type: Inline Disposable

Water Level: 3.31 feet below TOC — Drawdown: 0.10 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By:  **Date:** 7/23/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	P07D
Project Location:	Springfield, IL	**Sample ID:**	005
W.O. Number (s):	26071206	**Date (s):**	7/23/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 72 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/23/26 11:14 AM

Static Water Level: 2.84 feet below TOC

Total Depth: 32.54 feet below TOC

Water Column: 29.70 feet

Purging Activities

Purged By: FB Purge Date: 7/23/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 29.7 ft. x 0.022 = 0.65 L x 3 Vol. = 1.95 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 4.00 L

Physical appearance of purge water: Clear Odor: None Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
11:14	0.0	167	purge start time						
11:14	0.0	↓	7.06	1,511.00	18.60	5.05	-127.20	273.68	3.02
11:17	0.5		6.84	1,476.00	15.70	1.06	-120.90	132.16	3.11
11:20	1.0		6.84	1,454.00	15.90	0.77	-121.70	103.56	3.06
11:23	1.5		6.84	1,472.00	15.60	0.60	-128.70	68.58	3.06
11:26	2.0		6.84	1,473.00	15.50	0.54	-130.60	54.56	3.16
11:29	2.5		6.84	1,471.00	15.60	0.52	-131.20	30.24	3.18
11:32	3.0		6.85	1,472.00	15.50	0.50	-131.10	16.59	3.18
11:35	3.5		6.85	1,471.00	15.50	0.50	-131.10	9.58	3.18
11:38	4.0		6.85	1,471.00	15.50	0.50	-131.00	9.63	3.18

Sampling Activities

Sampled By: FB Sample Date/Time: 7/23/2026 11:38

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.85 pH 1,471.00 Spec. Cond. 15.50 Temp

Field Filtered: No Filter Type:

Water Level: 3.18 feet below TOC Drawdown: 0.34 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By:  **Date:** 7/23/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-4
Project Location:	Springfield, IL	**Sample ID:**	006
W.O. Number (s):	26071206	**Date (s):**	7/27/2026

Field Team Members

Name: Brett Gillihan Affiliation: TekLab, Inc.

Name: Danny Crump Affiliation: TekLab, Inc.

Weather Conditions

Temp: 93 °F Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	No			

Groundwater Level Measurements

Date/Time Measured: 7/27/26 12:38 PM

Static Water Level: 22.44 feet below TOC

Total Depth: 56.67 feet below TOC

Water Column: 34.23 feet

Purging Activities

Purged By: DC Purge Date: 7/27/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 34.23 ft. x 0.022 = 0.75 L x 3 Vol. = 2.25 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Cloudy Odor: None Color: Lt Brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
12:38	0.0	49							
12:45	0.3	↓	7.22	1,236.70	19.69	2.68	-12.60	171.99	22.46
12:48	0.5		6.99	1,099.90	18.99	1.65	-56.60	188.69	22.46
12:51	0.6		6.95	1,058.90	18.36	1.16	-99.40	159.89	22.46
12:54	0.8		6.95	1,022.60	17.23	0.68	-127.80	154.56	22.47
12:57	0.9		6.94	1,021.30	17.56	0.68	-128.40	149.65	22.45
13:00	1.1		6.94	1,020.10	17.88	0.65	-129.10	141.73	22.45
13:03	1.2		6.94	1,018.90	17.96	0.65	-129.70	135.68	22.47
13:06	1.4		6.94	1,018.10	18.13	0.62	-130.30	132.46	22.47
13:09	1.5		6.92	1,016.90	18.56	0.62	-131.00	123.57	22.46
13:12	1.7		6.92	1,015.90	18.44	0.61	-131.40	117.52	22.46
13:15	1.8		6.92	1,014.90	18.96	0.58	-132.50	123.65	22.47
13:18	2.0		6.90	1,014.50	19.11	0.56	-133.10	88.46	22.47
13:21	2.1		6.91	1,013.90	19.32	0.53	-133.30	96.72	22.47
13:24	2.3		6.91	1,013.40	19.46	0.52	-133.50	100.72	22.46
13:27	2.4		6.91	1,009.80	19.63	0.50	-134.00	58.08	22.45
13:30	2.6		6.90	1,011.40	19.50	0.48	-133.60	71.75	22.46
13:33	2.7		6.90	1,006.70	19.55	0.47	-133.00	84.35	22.45
13:36	2.9		6.89	1,004.80	19.43	0.46	-131.90	63.76	22.46
13:39	3.0		6.89	1,003.20	19.50	0.45	-131.50	108.92	22.46

Sampling Activities

Sampled By: BG Sample Date/Time: 7/27/2026 13:39

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.89 pH 1,003.20 Spec. Cond. 19.50 Temp

Field Filtered: No Filter Type:

Water Level: 22.46 feet below TOC Drawdown: 0.02 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 51302

Form Completed By: Brett Gillihan **Date:** 7/27/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-5
Project Location:	Springfield, IL	**Sample ID:**	007
W.O. Number (s):	26071206	**Date (s):**	7/23/2026

Field Team Members

Name: Frank Barthol Affiliation: TekLab, Inc.

Name: Affiliation:

Weather Conditions

Temp: 74 °F Wind Direction: ☐ N ☐ S ☑ E ☐ SE ☐ SW ☐ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

Well Pad	Good
Casing	Good
Protective Casing	Good
Reference Mark/Identification	Yes

Locks	Yes	No
Protective Casing		X
Well		X

Groundwater Level Measurements

Date/Time Measured: 7/23/26 1:49 PM

Static Water Level: 23.48 feet below TOC

Total Depth: 59.06 feet below TOC

Water Column: 35.58 feet

Purging Activities

Purged By: FB Purge Date: 7/23/2026

Purge Equipment: Peristaltic Pump Well Diameter: 2"

Purge Volume Calculation (L): 35.58 ft. x 0.022 = 0.78 L x 3 Vol. = 2.34 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 8.00 L

Physical appearance of purge water: Slightly cloudy Odor: None Color: Light brown

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
13:49	0.0	205	purge start time						
13:49	0.0	↓	7.51	1,122.00	23.10	5.34	-32.30	14.25	23.53
13:52	0.6		7.37	1,017.00	16.80	1.24	-32.50	27.92	23.6
13:55	1.2		7.36	1,015.00	16.60	1.02	-27.50	20.42	23.61
13:58	1.8		7.24	1,014.00	16.70	0.86	-89.50	39.88	23.61
14:01	2.5		7.13	1,034.00	16.00	0.61	-115.60	49.33	23.62
14:04	3.1		6.96	1,081.00	16.50	0.41	-133.10	174.84	23.63
14:07	3.7		6.96	1,080.00	16.50	0.41	-133.00	116.38	23.63
14:10	4.3		6.96	1,080.00	16.40	0.41	-133.00	102.43	23.63
14:13	4.9		6.96	1,082.00	16.40	0.41	-133.00	120.50	23.63
14:16	5.5		6.96	1,082.00	16.40	0.41	-133.00	137.75	23.63
14:19	6.2		6.96	1,081.00	16.40	0.41	-133.00	120.14	23.63
14:22	6.8		6.96	1,081.00	16.40	0.41	-133.00	121.26	23.63
14:25	7.4		6.96	1,082.00	16.40	0.41	-133.00	132.00	23.63
14:28	8.0		6.96	1,081.00	16.50	0.41	-133.10	130.35	23.63

Sampling Activities

Sampled By: FB Sample Date/Time: 7/23/2026 14:28

Sample Method: Low Flow Sample Equipment: Peristaltic Pump

Sample Parameters: 6.96 pH 1,081.00 Spec. Cond. 16.50 Temp

Field Filtered: No Filter Type:

Water Level: 23.63 feet below TOC Drawdown: 0.15 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By: Date: 7/23/2026

Field Data Sheet

Project Name:	FGDS Landfill	**Monitoring Point:**	AW-6
Project Location:	Springfield, IL	**Sample ID:**	008
W.O. Number (s):	26071206	**Date (s):**	7/22/2026

Field Team Members

Name: Frank Barthol — Affiliation: TekLab, Inc.

Name: — Affiliation:

Weather Conditions

Temp: 74 °F — Wind Direction: ☐ N ☐ S ☐ E ☐ SE ☐ SW ☑ NE ☐ NW

Precipitation: ☑ None ☐ Light ☐ Heavy — Sky: ☑ Clear ☐ Partly Cloudy ☐ Cloudy

Well Observations

		Locks	Yes	No
Well Pad	Good			
Casing	Good	Protective Casing		X
Protective Casing	Good	Well		X
Reference Mark/Identification	Yes			

Groundwater Level Measurements

Date/Time Measured: 7/22/26 11:09 AM

Static Water Level: 1.06 feet below TOC

Total Depth: 33.44 feet below TOC

Water Column: 32.38 feet

Purging Activities

Purged By: FB — Purge Date: 7/22/2026

Purge Equipment: Peristaltic Pump — Well Diameter: 2"

Purge Volume Calculation (L): 32.38 ft. x 0.022 = 0.71 L x 3 Vol. = 2.13 L **Based on Low-Flow (3/8" discharge)*

Actual Purge Volume (L): 3.00 L

Physical appearance of purge water: Clear — Odor: None — Color: None

Purge Time	Cumulative Purge Vol.(L)	Purge Rate (mL/m)	pH (S.U.)	Specific Conductivity (µS/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	DTW (ft. below TOC)
11:09	0.0	167	purge start time						
11:09	0.0	↓	6.87	2,091.00	16.40	3.06	-125.60	10.54	1.11
11:12	0.5		6.85	2,064.00	14.80	1.63	-120.70	10.13	1.12
11:15	1.0		6.86	2,063.00	14.60	1.44	-120.10	10.44	1.12
11:18	1.5		6.86	2,063.00	14.40	1.36	-119.80	9.25	1.12
11:21	2.0		6.86	2,062.00	14.40	1.35	-119.40	9.52	1.12
11:24	2.5		6.86	2,062.00	14.40	1.35	-119.60	9.76	1.12
11:27	3.0		6.86	2,062.00	14.40	1.34	-119.60	9.80	1.12

Sampling Activities

Sampled By: FB — Sample Date/Time: 7/22/2026 11:27

Sample Method: Low Flow — Sample Equipment: Peristaltic Pump

Sample Parameters: 6.86 pH — 2,062.00 Spec. Cond. — 14.40 Temp

Field Filtered: No — Filter Type:

Water Level: 1.12 feet below TOC — Drawdown: 0.06 feet

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

- Field Meter: 234688

Form Completed By:  **Date:** 7/22/2026

Site Samping Event: FGDS Landfill
LIMS Workorder: 26071206
Technician(s): FB, DC, BG

Field Calibration Log(s)
CWLP- 3Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 234688 Technician(s): Frank Barthol Date: 7/22/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	159.70	7/22/26 8:49
7.0 Buffer	WC260710B	7.00	-19.50	7/22/26 8:43
10.0 Buffer	WC260710C	10.00	-190.80	7/22/26 8:55
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/22/26 9:02

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.09	7/22/26 9:08
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1-FB	LCS	7/22/26 9:11	23.3	7.01	1,412	0.11		
CCV-1-FB	CCV	7/22/26 14:08	27.2	7.06	1,396	0.09		

Comments:

Field Meter ID: Pine 234688 Technician(s): Frank Barthol Date: 7/23/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	164.20	7/23/26 9:06
7.0 Buffer	WC260710B	7.00	-14.60	7/23/26 8:58
10.0 Buffer	WC260710C	10.00	-186.30	7/23/26 9:13
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/23/26 9:19

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.13	7/23/26 9:22
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-FB	LCS	7/23/26 9:24	22.4	7.00	1,410	0.13		
CCV-2-FB	CCV	7/23/26 14:45	30.23	7.06	1,391	0.16		

Comments:

Site Samping Event: FGDS Landfill
LIMS Workorder: 26071206
Technician(s): FB, DC, BG

Field Calibration Log(s)
CWLP- 3Q 2026

Field Temp SOP 1156 - SM 2550 B
Field pH SOP 1152 - SW-846 9040B - SM 4500-H B
Field Cond. SOP 1155 - SW-846 9050A - SM 2510 B

Field Meter ID: Pine 51302 Technician(s): Brett Gillihan Date: 7/24/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	135.30	7/24/26 9:38
7.0 Buffer	WC260710B	7.00	-37.10	7/24/26 9:30
10.0 Buffer	WC260710C	10.00	-196.03	7/24/26 9:44
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/24/26 9:48

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.42	7/24/26 9:49
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-1	LCS	7/24/26 9:52	20.4	6.99	1,411	0.4		
CCV-1	CCV	7/24/26 11:15	20.4	6.98	1,411	0.41		

Comments:

Field Meter ID: Pine 51302 Technician(s): Brett Gilihan Date: 7/27/2026

pH Standards	LIMS ID	Reading (SU & mV)		Date/Time
4.0 Buffer	WC260710A	4.00	134.24	7/27/26 10:24
7.0 Buffer	WC260710B	7.00	-37.08	7/27/26 10:22
10.0 Buffer	WC260710C	10.00	-196.32	7/27/26 10:27
LCS/CCV (7.0 Buffer)	WC260710D			

Conductivity Standard	LIMS ID	Reading	Date/Time
1,412 µS Std.	112045	1412	7/27/26 10:29

Turbidity Standard	LIMS ID	Reading	Date/Time
0 NTU (DI Water)	1	0.3	7/27/26 10:31
124 NTU	95834		

ORP Standard	LIMS ID/Lot#	Reading		Date/Time

D.O. Saturation	Barometer (mmHg)	Reading	Date/Time
100%			

Sample ID	Sample Type	Date/Time	Temp. °C	pH S.U.	Conductivity µS	Turbidity NTU	ORP mV	D.O. %
LCS-2-BG	LCS	7/27/26 10:37	23.2	7.02	1,412	0.31		
CCV-2-BG	CCV	7/27/26 14:00	24.3	7.03	1,415	0.34		

Comments:

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August 28, 2026

Shelly Hennessy
TEKLAB Inc,
120 United Drive
Collinsville, IL 62234
TEL:
FAX:

RE: 26071206

Dear Shelly Hennessy:

Order No.: 26080026

Alliance Technical Group - Akron received 8 sample(s) on 7/31/2026 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0828, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **26080026**
Date: **8/28/2026**

CLIENT: TEKLAB Inc,
Project: 26071206

WorkOrder Narrative:
26080026: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Alliance Technical Group Work Order Number assigned to this report.

Alliance Technical Group holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Alliance Technical Group and that of the customer. It cannot be reproduced in any form without the consent of Alliance Technical Group or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Alliance Technical Group is not responsible for use or interpretation of the data included herein.

All results for solid samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence Sample Notes:
26080026-003A Radium-228_NPW(904.0): Sample exhibits high RPD, possibly due to sample matrix. Sample is NPW.
26080026-005A Radium-228_NPW(904.0): Both parent and DUP results are below the reporting limit.
26080026-006A Radium-228_NPW(904.0): Parent sample and DUP exhibit high RPD possibly due to sample matrix. Sample is NPW.
26080026-007A Radium-228_NPW(904.0): Parent sample and DUP exhibit high RPD possibly due to sample matrix. Sample is NPW.

Analytical Sequence QC Notes:
LCS/LCSD-101685 Radium-228_NPW(904.0): LCS/LCSD exhibit high RPD. Both results are within

acceptable criteria individually.
LCS/LCSD-102077 Radium-228_DW(904.0): LCS/LCSD exhibit high RPD. Results are within acceptable limits individually.

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Workorder Sample Summary

WO#: **26080026**

28-Aug-26

CLIENT: TEKLAB Inc,
Project: 26071206

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
26080026-001	26071206-001C		7/22/2026 1:14:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080026-002	26071206-002C		7/23/2026 12:52:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080026-003	26071206-003C		7/24/2026 9:55:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080026-004	26071206-004C		7/23/2026 10:58:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080026-005	26071206-005C		7/23/2026 11:38:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water
26080026-006	26071206-006C		7/27/2026 1:39:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080026-007	26071206-007C		7/23/2026 2:28:00 PM	7/31/2026 10:30:00 AM	Non-Potable Water
26080026-008	26071206-008C		7/22/2026 11:27:00 AM	7/31/2026 10:30:00 AM	Non-Potable Water

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Analytical Report

(consolidated)

WO#: **26080026**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/22/2026 1:14:00 PM

Project: 26071206

Lab ID: 26080026-001
Matrix: NON-POTABLE WATER

Client Sample ID: 26071206-001C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.960	1	8/22/2026 9:55:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0700	1	8/22/2026 9:55:00 AM
Yield	1.00					1	8/22/2026 9:55:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	1.42	1.00		pCi/L	± 0.890	1	8/21/2026 2:42:00 PM
Yield	1.00					1	8/21/2026 2:42:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080026**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/23/2026 12:52:00 PM

Project: 26071206

Lab ID: 26080026-002
Matrix: NON-POTABLE WATER

Client Sample ID: 26071206-002C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.840	1	8/22/2026 9:55:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0600	1	8/22/2026 9:55:00 AM
Yield	1.00					1	8/22/2026 9:55:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.780	1	8/21/2026 2:42:00 PM
Yield	1.00					1	8/21/2026 2:42:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080026**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,

Collection Date: 7/24/2026 9:55:00 AM

Project: 26071206

Lab ID: 26080026-003

Matrix: NON-POTABLE WATER

Client Sample ID: 26071206-003C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.960	1	8/22/2026 9:55:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0400	1	8/22/2026 9:55:00 AM
Yield	1.00					1	8/22/2026 9:55:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	1.31	1.00	QDR	pCi/L	± 0.920	1	8/21/2026 2:42:00 PM
Yield	0.940					1	8/21/2026 2:42:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(consolidated)

WO#: **26080026**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/23/2026 10:58:00 AM
Project: 26071206
Lab ID: 26080026-004
Matrix: NON-POTABLE WATER
Client Sample ID: 26071206-004C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.930	1	8/22/2026 9:55:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0700	1	8/22/2026 9:55:00 AM
Yield	1.00					1	8/22/2026 9:55:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	1.27	1.00		pCi/L	± 0.860	1	8/21/2026 2:42:00 PM
Yield	1.00					1	8/21/2026 2:42:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **26080026**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/23/2026 11:38:00 AM

Project: 26071206

Lab ID: 26080026-005
Matrix: NON-POTABLE WATER

Client Sample ID: 26071206-005C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.760	1	8/22/2026 9:55:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0700	1	8/22/2026 9:55:00 AM
Yield	1.00					1	8/22/2026 9:55:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00	QDR	pCi/L	± 0.690	1	8/21/2026 2:42:00 PM
Yield	1.00					1	8/21/2026 2:42:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(consolidated)

WO#: **26080026**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,
Collection Date: 7/27/2026 1:39:00 PM
Project: 26071206
Lab ID: 26080026-006
Matrix: NON-POTABLE WATER
Client Sample ID: 26071206-006C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.630	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0500	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00	QDR	pCi/L	± 0.580	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **26080026**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,

Collection Date: 7/23/2026 2:28:00 PM

Project: 26071206

Lab ID: 26080026-007

Matrix: NON-POTABLE WATER

Client Sample ID: 26071206-007C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	ND	2.00		pCi/L	± 0.640	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0600	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00	QDR	pCi/L	± 0.580	1	8/12/2026 1:15:00 PM
Yield	0.930					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **26080026**

Date Reported: **8/28/2026**

CLIENT: TEKLAB Inc,

Collection Date: 7/22/2026 11:27:00 AM

Project: 26071206

Lab ID: 26080026-008

Matrix: NON-POTABLE WATER

Client Sample ID: 26071206-008C

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**CALCULATION**	**E903-904**	Analyst: **TAL**
COMBINED RADIUM (EPA903+904)							
Radium-226/Radium-228	2.64	2.00		pCi/L	± 0.870	1	8/13/2026 7:39:00 AM
RAD226/228					**E903.0**	**E903-904**	Analyst: **TAL**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00		pCi/L	± 0.0800	1	8/13/2026 7:39:00 AM
Yield	1.00					1	8/13/2026 7:39:00 AM
RAD226/228					**E904.0**	**E903-904**	Analyst: **TAL**
RADIUM-228 (EPA 904.0)							
Radium-228	2.64	1.00		pCi/L	± 0.790	1	8/12/2026 1:15:00 PM
Yield	1.00					1	8/12/2026 1:15:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Qualifiers and Acronyms

WO#: **26080026**
Date: **8/28/2026**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
D	Manual integration in which peak was deleted.
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	A deviation from the method was performed; Please refer to the Case Narrative for additional information.

Acroynms

ND	Not Detected
QC	Quality Control
MB	Method Blank
LCS	Laboratory Control Sample
LCS	Laboratory Control Sample Duplicate
QCS	Quality Control Sample
DUP	Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Different
ICV	Initial Calibration Verification
ICB	Initial Calibration Blank
CCV	Continuing Calibration Verification
CCB	Continuing Calibration Blank
RLC	Reporting Limit Check
DF	Dilution Factor

RL	Reporting Limit
MDL	Method Detection Limit
LOD	Level of Detection
LOQ	Level of Quantitation
PQL	Practical Quantitation Limit
CRQL	Contract Required Quantitation Limit
PL	Permit Limit
RegLvl	Regulatory Limit
MCL	Maximum Contamination Limit
MinCL	Minimum Compound Limit
RA	Reanalysis
RE	Reextraction
TIC	Tentatively Identified Compound
RT	Retention Time
CF	Calibration Factor
RF	Response Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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DATES REPORT

WO#: **26080026**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071206

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26080026-001A	26071206-001C	7/22/2026 1:14:00 PM	Non-Potable Water	Combined Radium (EPA903+904)		8/13/2026 8:27:00 AM	8/22/2026 9:55:00 AM
				Radium-226 (EPA 903.0)		8/13/2026 8:27:00 AM	8/22/2026 9:55:00 AM
				Radium-228 (EPA 904.0)		8/13/2026 8:27:00 AM	8/21/2026 2:42:00 PM
26080026-002A	26071206-002C	7/23/2026 12:52:00 PM		Combined Radium (EPA903+904)		8/13/2026 8:27:00 AM	8/22/2026 9:55:00 AM
				Radium-226 (EPA 903.0)		8/13/2026 8:27:00 AM	8/22/2026 9:55:00 AM
				Radium-228 (EPA 904.0)		8/13/2026 8:27:00 AM	8/21/2026 2:42:00 PM
26080026-003A	26071206-003C	7/24/2026 9:55:00 AM		Combined Radium (EPA903+904)		8/13/2026 8:27:00 AM	8/22/2026 9:55:00 AM
				Radium-226 (EPA 903.0)		8/13/2026 8:27:00 AM	8/22/2026 9:55:00 AM
				Radium-228 (EPA 904.0)		8/13/2026 8:27:00 AM	8/21/2026 2:42:00 PM
26080026-004A	26071206-004C	7/23/2026 10:58:00 AM		Combined Radium (EPA903+904)		8/13/2026 8:27:00 AM	8/22/2026 9:55:00 AM
				Radium-226 (EPA 903.0)		8/13/2026 8:27:00 AM	8/22/2026 9:55:00 AM
				Radium-228 (EPA 904.0)		8/13/2026 8:27:00 AM	8/21/2026 2:42:00 PM
26080026-005A	26071206-005C	7/23/2026 11:38:00 AM		Combined Radium (EPA903+904)		8/13/2026 8:27:00 AM	8/22/2026 9:55:00 AM
				Radium-226 (EPA 903.0)		8/13/2026 8:27:00 AM	8/22/2026 9:55:00 AM
				Radium-228 (EPA 904.0)		8/13/2026 8:27:00 AM	8/21/2026 2:42:00 PM
26080026-006A	26071206-006C	7/27/2026 1:39:00 PM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080026-007A	26071206-007C	7/23/2026 2:28:00 PM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM
26080026-008A	26071206-008C	7/22/2026 11:27:00 AM		Combined Radium (EPA903+904)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM
				Radium-226 (EPA 903.0)		8/7/2026 1:34:00 PM	8/13/2026 7:39:00 AM

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DATES REPORT

WO#: **26080026**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071206

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
26080026-008A	26071206-008C	7/22/2026 11:27:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		8/7/2026 1:34:00 PM	8/12/2026 1:15:00 PM

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QC SUMMARY REPORT

WO#: **26080026**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071206 **BatchID:** **101685**

Sample ID: **LCS-101685** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/7/2026** RunNo: **247655**
Client ID: **BatchQC** Batch ID: **101685** TestNo: **E904.0** **E903-904** Analysis Date: **8/12/2026** SeqNo: **6369984**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.59	1.00	5.000	0	91.8	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-101685** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/7/2026** RunNo: **247655**
Client ID: **BatchQC** Batch ID: **101685** TestNo: **E904.0** **E903-904** Analysis Date: **8/12/2026** SeqNo: **6369985**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.13	1.00	5.000	0	62.6	50	130	4.590	37.8	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **26080026-006ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/7/2026** RunNo: **247655**
Client ID: **26071206-006C** Batch ID: **101685** TestNo: **E904.0** **E903-904** Analysis Date: **8/12/2026** SeqNo: **6369989**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.38	1.00		0	0			0.9300	87.6	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: **26080026-007ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/7/2026** RunNo: **247655**
Client ID: **26071206-007C** Batch ID: **101685** TestNo: **E904.0** **E903-904** Analysis Date: **8/12/2026** SeqNo: **6369992**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.54	1.00		0	0			0.9000	52.5	20	R

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **26080026**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071206

BatchID: **101685**

Sample ID: **26080026-007ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247655**
Client ID: **26071206-007C**	Batch ID: **101685**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/12/2026**	SeqNo: **6369992**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Yield	1.00			0	0			0.9300	7.25		

Sample ID: **MB-101685**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247655**
Client ID: **BatchQC**	Batch ID: **101685**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/12/2026**	SeqNo: **6370010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.980			0	0						

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26080026**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071206

BatchID: **101685**

Sample ID: **MB-101685**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247656**
Client ID: **BatchQC**	Batch ID: **101685**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/13/2026**	SeqNo: **6370070**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-101685**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247656**
Client ID: **BatchQC**	Batch ID: **101685**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/13/2026**	SeqNo: **6370071**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.97	1.00	5.000	0	99.4	70	130				

Sample ID: **LCSD-101685**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247656**
Client ID: **BatchQC**	Batch ID: **101685**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/13/2026**	SeqNo: **6370072**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.53	1.00	5.000	0	111	70	130	4.970	10.7	20	

Sample ID: **26080026-006ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/7/2026**	RunNo: **247656**
Client ID: **26071206-006C**	Batch ID: **101685**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/13/2026**	SeqNo: **6370077**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26080026**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071206

BatchID: **101685**

Sample ID: **26080026-007ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **8/7/2026** RunNo: **247656**
Client ID: **26071206-007C** Batch ID: **101685** TestNo: **E903.0** **E903-904** Analysis Date: **8/13/2026** SeqNo: **6370079**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26080026**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071206

BatchID: **102077**

Sample ID: **26080026-003ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/13/2026** RunNo: **248142**
Client ID: **26071206-003C** Batch ID: **102077** TestNo: **E904.0** **E903-904** Analysis Date: **8/21/2026** SeqNo: **6383073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.36	1.00		0	0			1.310	87.8	20	R
Yield	1.00			0	0			0.9400	6.19		

Sample ID: **26080026-005ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **8/13/2026** RunNo: **248142**
Client ID: **26071206-005C** Batch ID: **102077** TestNo: **E904.0** **E903-904** Analysis Date: **8/21/2026** SeqNo: **6383076**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	0.910			0	0			1.000	9.42		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26080026**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071206

BatchID: **102077**

Sample ID: **MB-102077**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/13/2026**	RunNo: **248142**
Client ID: **BatchQC**	Batch ID: **102077**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/21/2026**	SeqNo: **6383059**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-102077**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/13/2026**	RunNo: **248142**
Client ID: **BatchQC**	Batch ID: **102077**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/21/2026**	SeqNo: **6383060**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.62	1.00	5.000	0	72.4	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-102077**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **8/13/2026**	RunNo: **248142**
Client ID: **BatchQC**	Batch ID: **102077**	TestNo: **E904.0**	**E903-904**	Analysis Date: **8/21/2026**	SeqNo: **6383061**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.51	1.00	5.000	0	90.2	50	130	3.620	21.9	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

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QC SUMMARY REPORT

WO#: **26080026**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071206

BatchID: **102077**

Sample ID: **26080026-003ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **8/13/2026** RunNo: **248208**
Client ID: **26071206-003C** Batch ID: **102077** TestNo: **E903.0** **E903-904** Analysis Date: **8/22/2026** SeqNo: **6385152**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Sample ID: **26080026-005ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **8/13/2026** RunNo: **248208**
Client ID: **26071206-005C** Batch ID: **102077** TestNo: **E903.0** **E903-904** Analysis Date: **8/22/2026** SeqNo: **6385155**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **26080026**

28-Aug-26

Client: TEKLAB Inc,
Project: 26071206

BatchID: **102077**

Sample ID: **MB-102077**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/13/2026**	RunNo: **248208**
Client ID: **BatchQC**	Batch ID: **102077**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/22/2026**	SeqNo: **6385132**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-102077**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/13/2026**	RunNo: **248208**
Client ID: **BatchQC**	Batch ID: **102077**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/22/2026**	SeqNo: **6385133**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.81	1.00	5.000	0	96.2	70	130				

Sample ID: **LCSD-102077**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **8/13/2026**	RunNo: **248208**
Client ID: **BatchQC**	Batch ID: **102077**	TestNo: **E903.0**	**E903-904**	Analysis Date: **8/22/2026**	SeqNo: **6385134**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.30	1.00	5.000	0	86.0	70	130	4.810	11.2	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Pg ___ of ___

TEKLAB, INC. Chain of Custody

120 United Drive, Collinsville, IL 62234 Phone (618) 344-1004

26080026

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
120 United Drive
Collinsville, IL 62234

Cooler Temp: Sampler: Client QC Level: 2

Comments: **Please Issue reports and invoices via email only**
SHIP to ATG-Akron. Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc.
Batch QC and standard EDD are required. State of Sample Origin = MO

Project# 26071206

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 41653 Phone: (618) 344-1004 ext. 1024

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Unpres	HNO3	H2SO4	NaOH	Other	Matrix	Radium 226/228	Combined Radium			PH	cpm	PH	cpm	PH	cpm		
	26071206-001C	7/22/2026 13:14	☐	☑	☐	☐	☐	Groundwater	✔	✔			1	35	1	40	1	50		
	26071206-002C	7/23/2026 12:52	☐	☐	☐	☐	☐	Groundwater	✔	✔			1	40	1	20	2	44		
	26071206-003C	7/24/2026 09:55	☐	☐	☐	☐	☐	Groundwater	✔	✔			1	43	1	33	2	48		
	26071206-004C	7/23/2026 10:58	☐	☐	☐	☐	☐	Groundwater	✔	✔			1	40	2	40	2	20		
	26071206-005C	7/23/2026 11:38	☐	☐	☐	☐	☐	Groundwater	✔	✔			1	37	2	36	2	40		
	26071206-006C	7/27/2026 13:39	☐	☐	☐	☐	☐	Groundwater	✔	✔			1	40	1	40	2	33		
	26071206-007C	7/23/2026 14:28	☐	☐	☐	☐	☐	Groundwater	✔	✔			1	38	2	34				
	26071206-008C	7/22/2026 11:27	☐	☐	☐	☐	☐	Groundwater	✔	✔			1	42	1	30				
			☐	☐	☐	☐	☐	Aqueous					1	36	1	28				
			☐	☐	☐	☐	☐	Aqueous												
			☐	☐	☐	☐	☐	Aqueous												

*Relinquished By	Date/Time	Received By	Date/Time
Kylie Vooree	7/28/26 17:00	Paige Sovich	7/31/26 10:30
			Fedex

Temp: 23.7°C (23.6+0.1)

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information, as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2, Section 4.1.5)

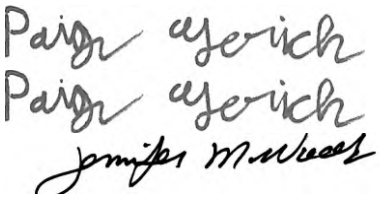
SubCocRev8

Alliance Technical Group - Akron
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **TEK-IL-62234-A** Work Order Number: **26080026** RcptNo: **1**

Logged by:	**Paige J. Yerick**	**7/31/2026 10:30:00 AM**
Completed By:	**Paige J. Yerick**	**8/1/2026 5:34:14 PM**
Reviewed By:	**Jennifer Woolf**	**8/5/2026 7:34:54 PM**



Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☑ No ☐ Not Present ☐ NA ☐
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

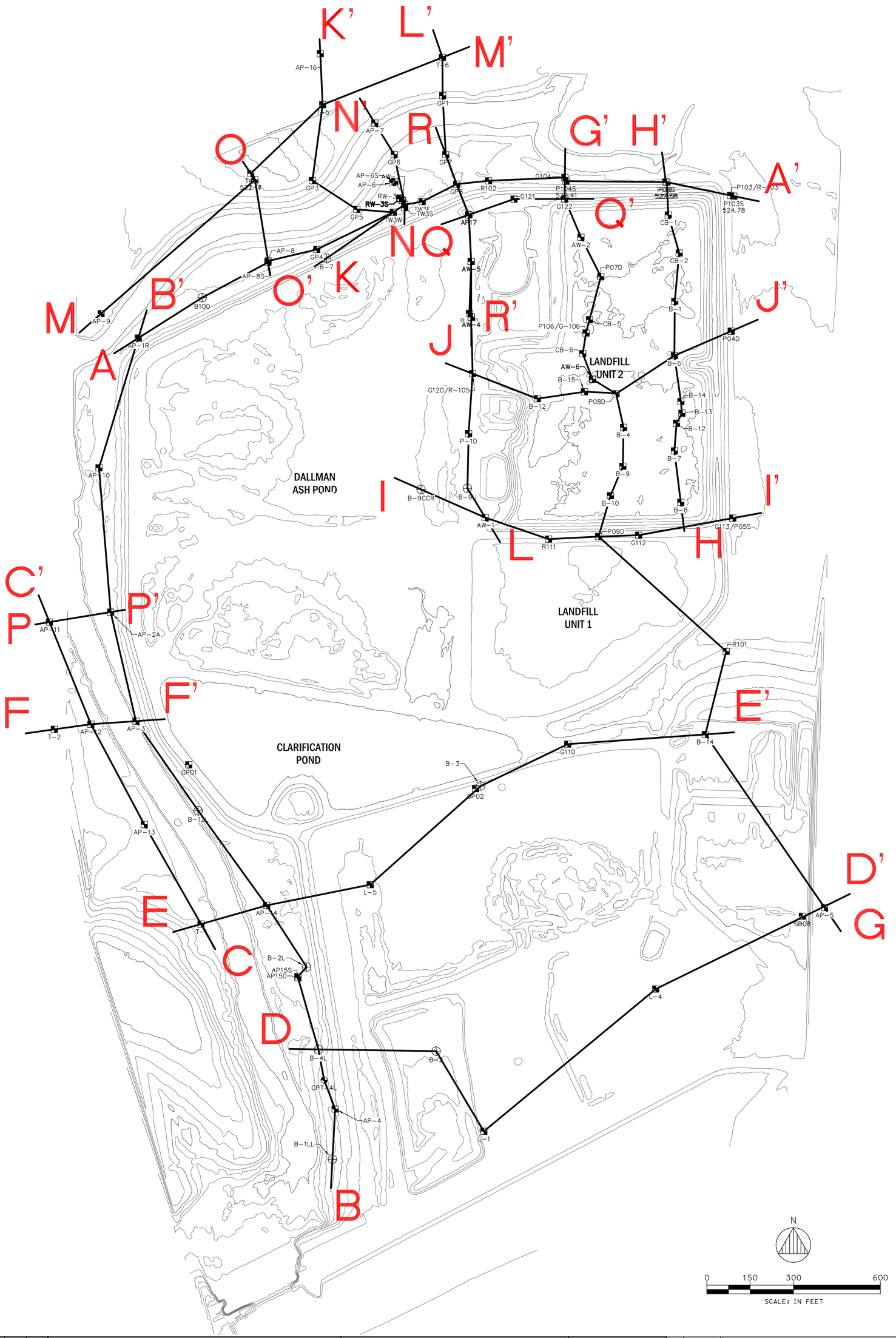
Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	23.7	Good	Yes			

APPENDIX D:
GEOLOGIC CROSS-SECTIONS



GEOLOGIC CROSS-SECTION LOCATIONS MAP

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

ANDREWS ENGINEERING
a Geo-Logic Company
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

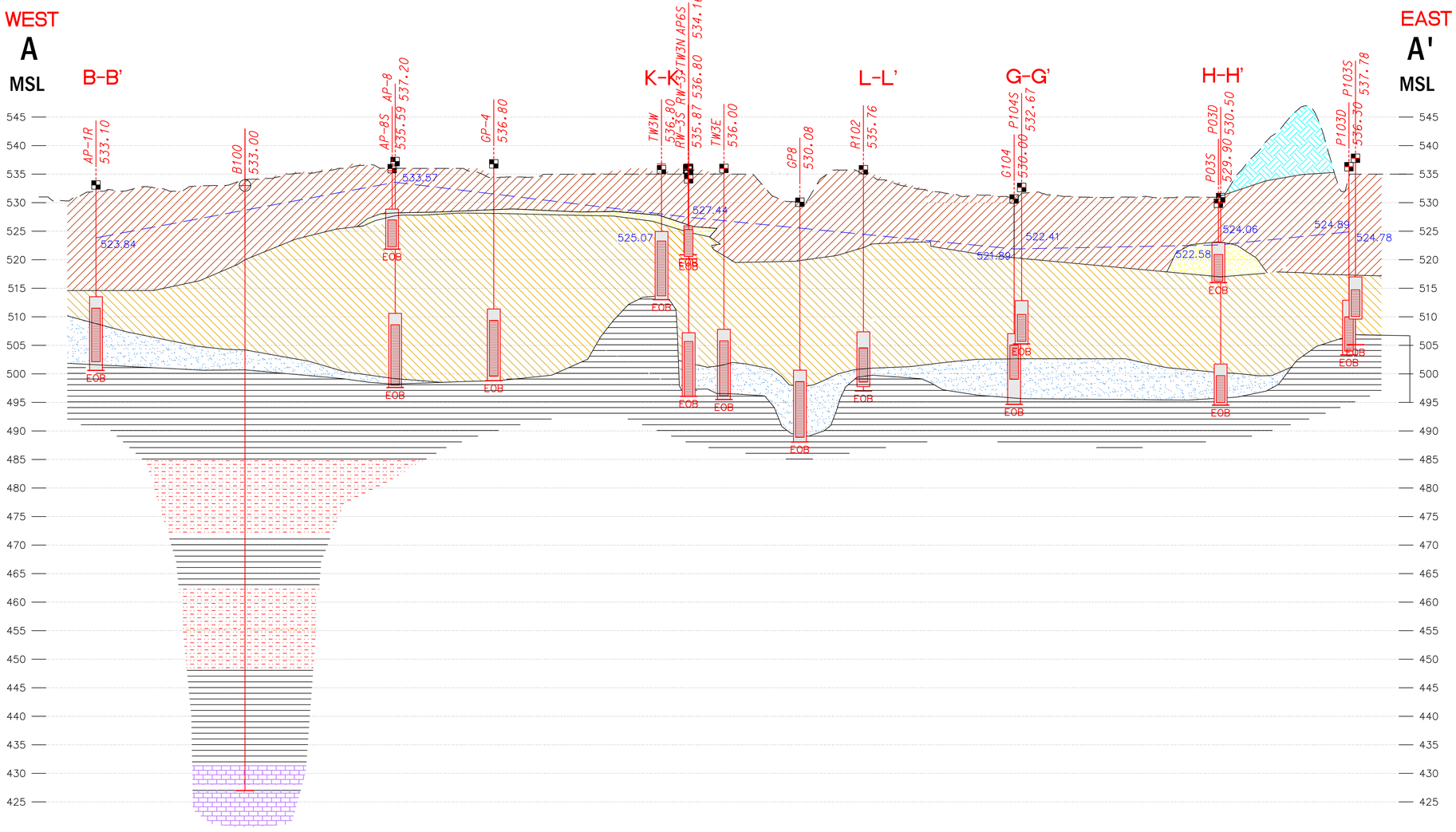
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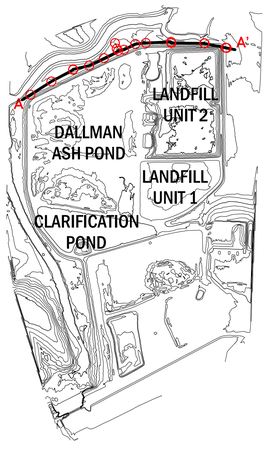
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PROJECT ID: 240227.0010

DATE: AUGUST 2024

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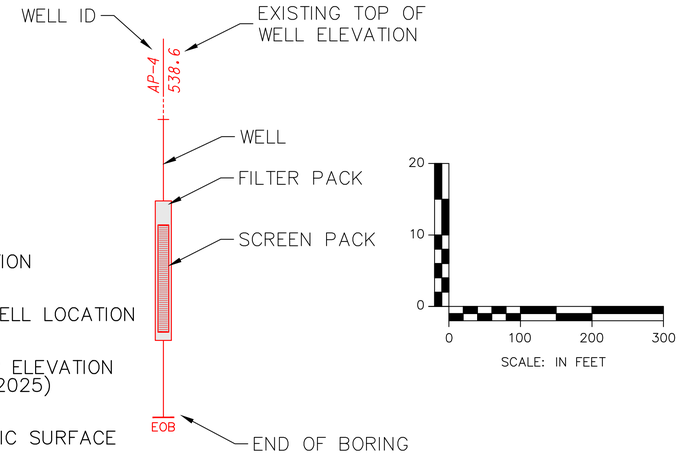


NOTES

1. DEPTH AND THICKNESS OF SUBSURFACE STRATA WERE GENERALIZED FROM AND INTERPOLATED BETWEEN BORINGS. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE LOCATION OF THE BORING. SEE BORING LOGS FOR DETAILED DESCRIPTION.
2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- CLAYSTONE
- SANDSTONE
- LIMESTONE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
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SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION A-A'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2026

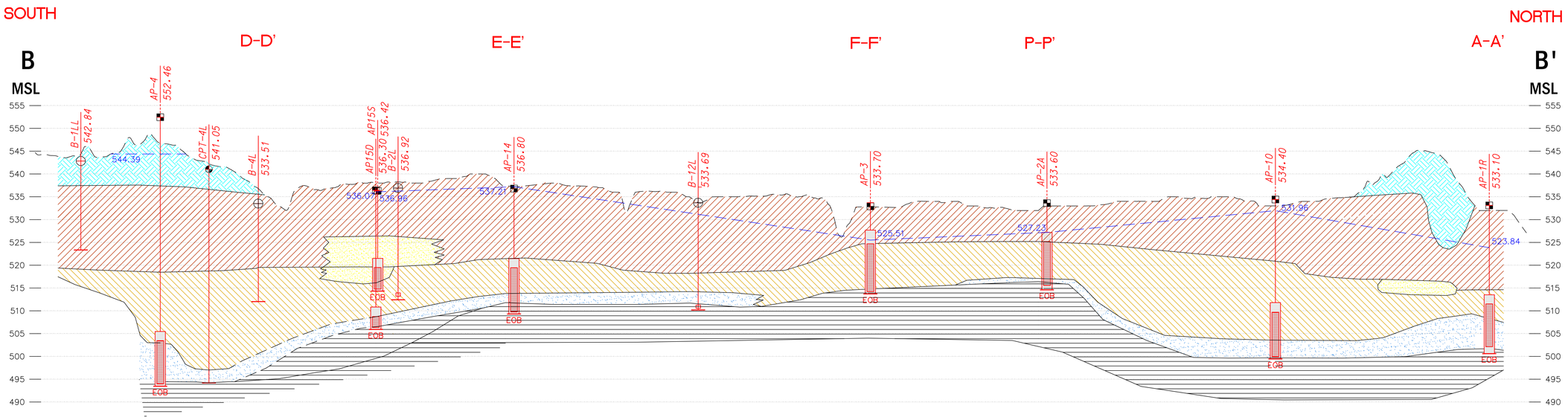
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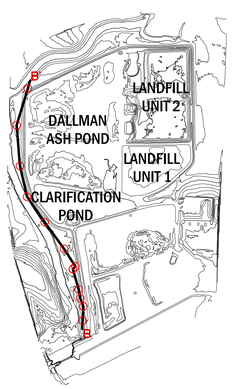
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A-A'

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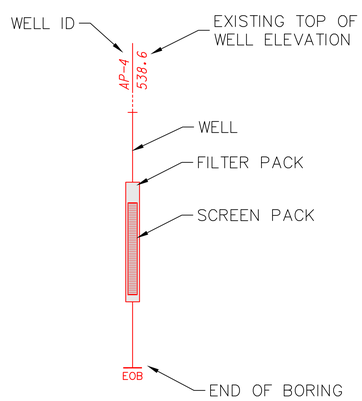


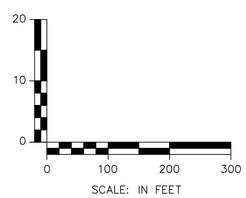
NOTES

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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- SHALLOW SAND
- BORING LOCATION
- MONITORING WELL LOCATION
- CPT BORING LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

GEOLOGIC CROSS-SECTION B-B'

PLANS PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

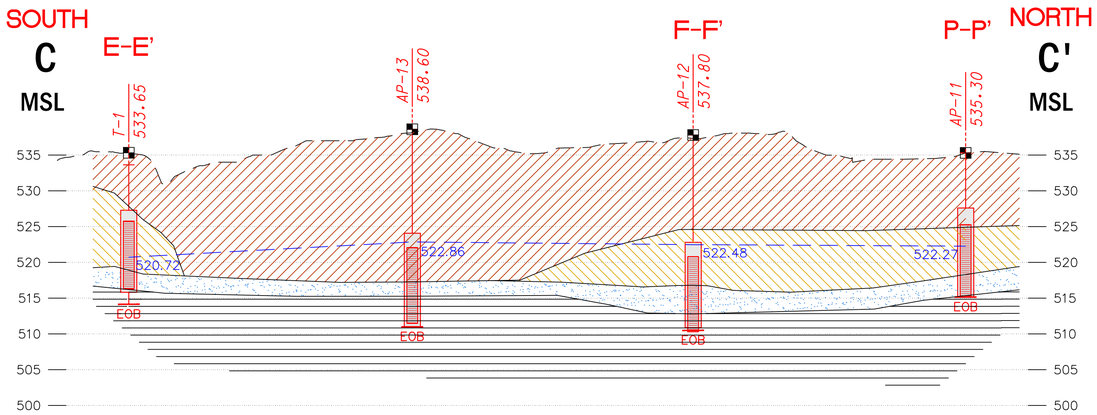
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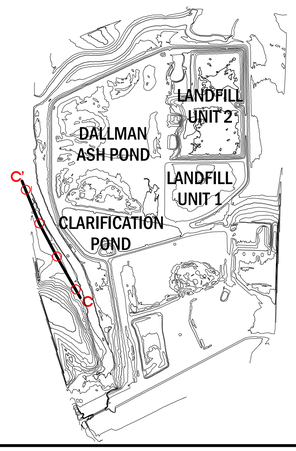
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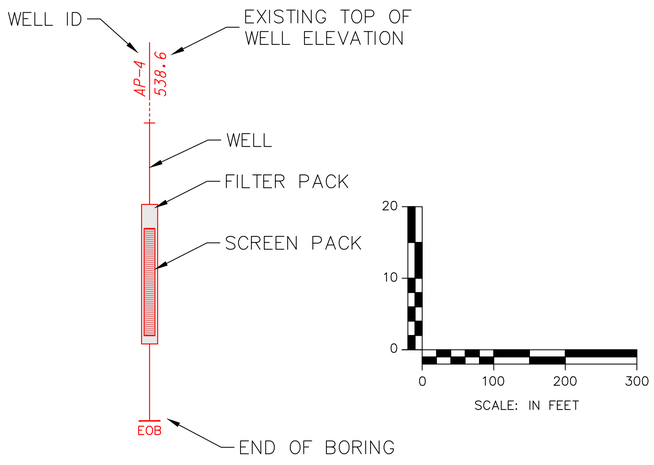


NOTES

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2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

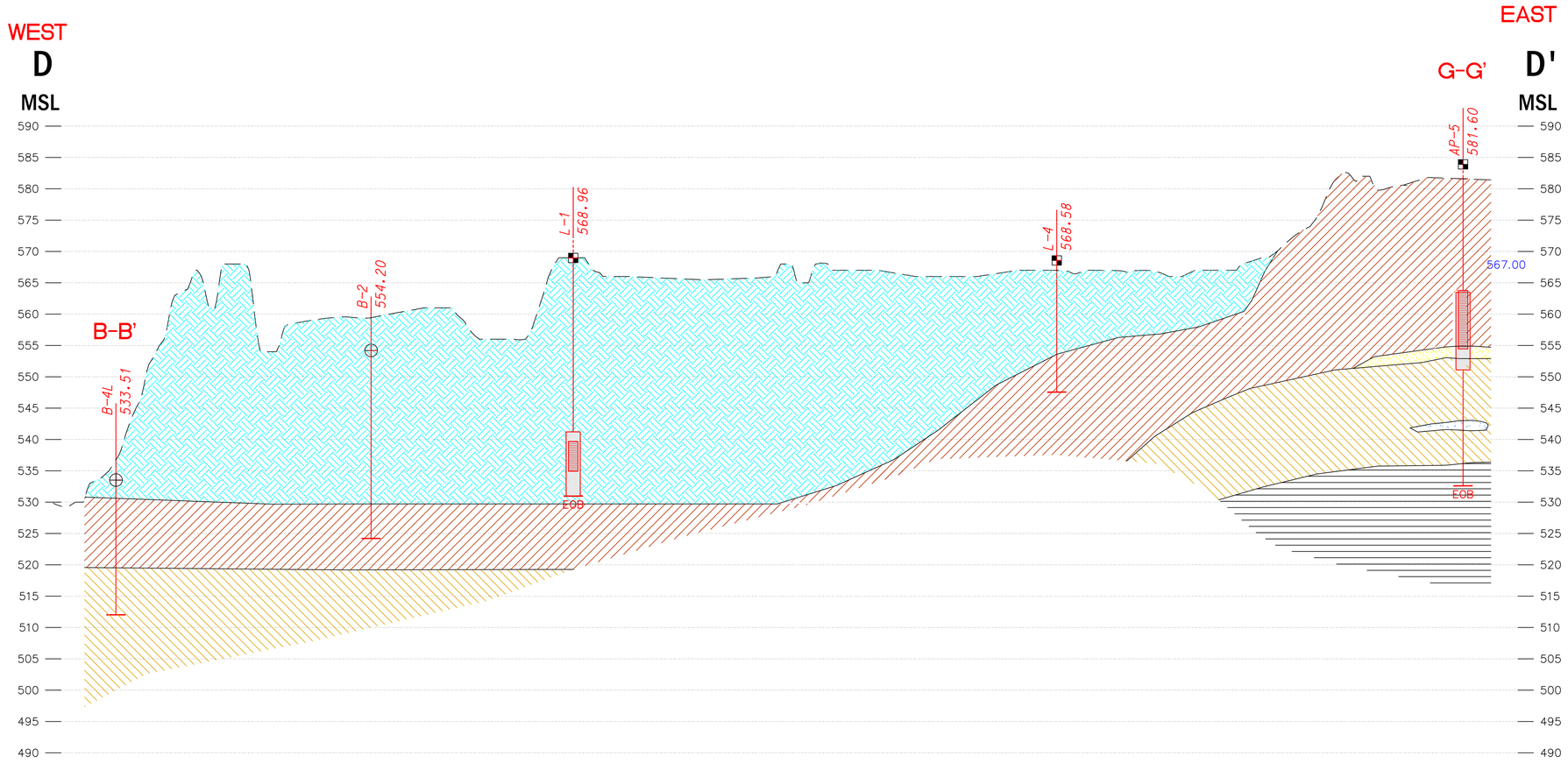
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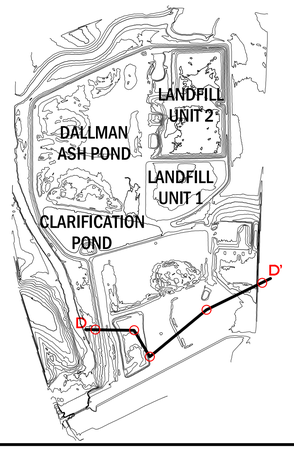
PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025
PROJECT ID: 240338/0014
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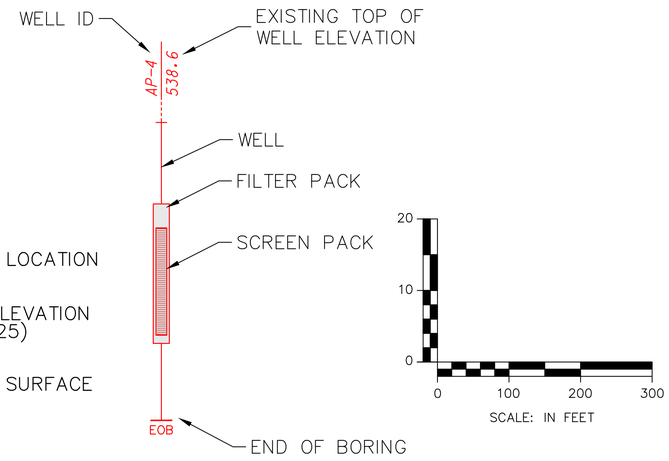


NOTES

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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

GEOLOGIC CROSS-SECTION D-D'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

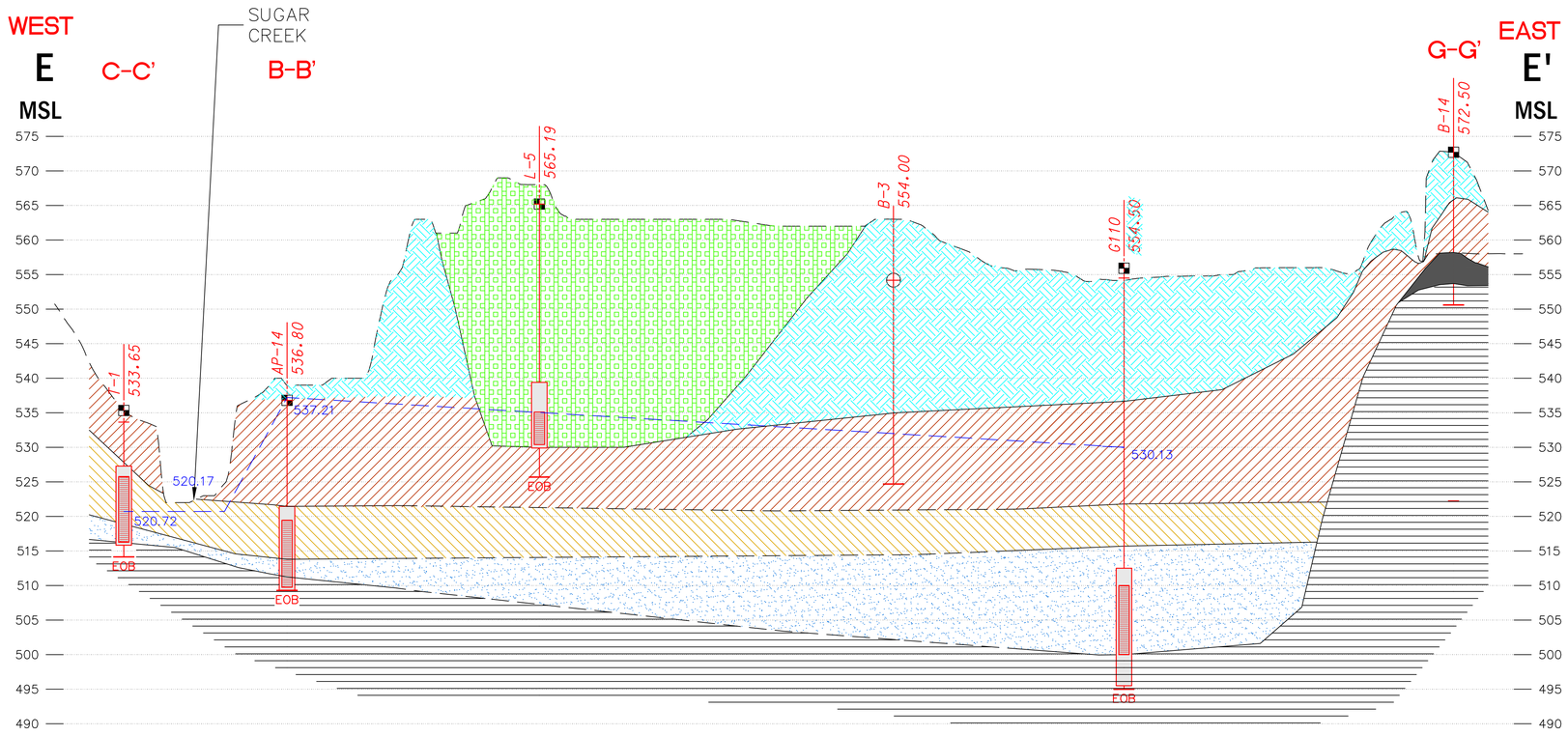
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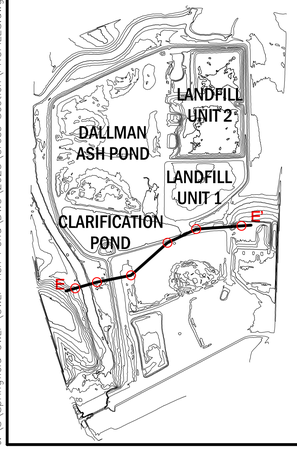
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D-D'

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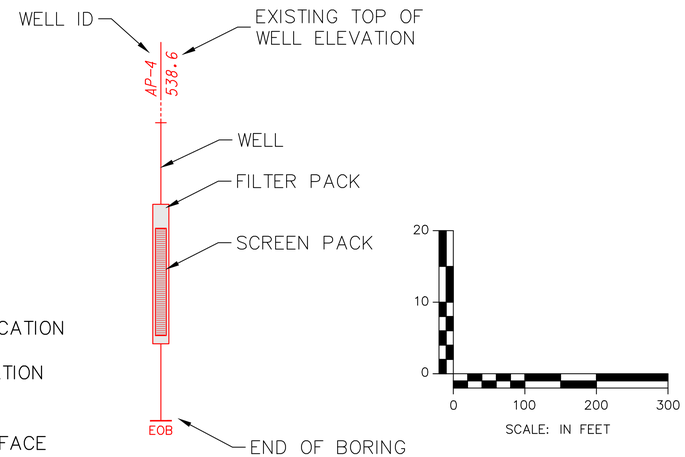


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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- CCR ASH
- COAL
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

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PH (217) 787-2334 WWW.ANDREWS-ENG.COM
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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION E-E'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

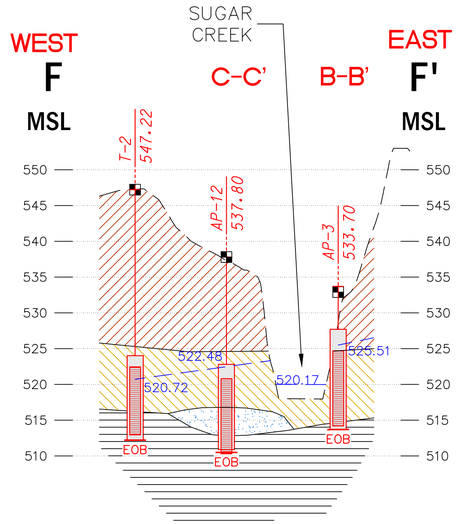
PROJECT ID: 240338/0014

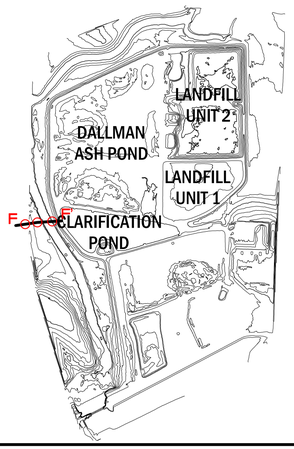
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E-E'

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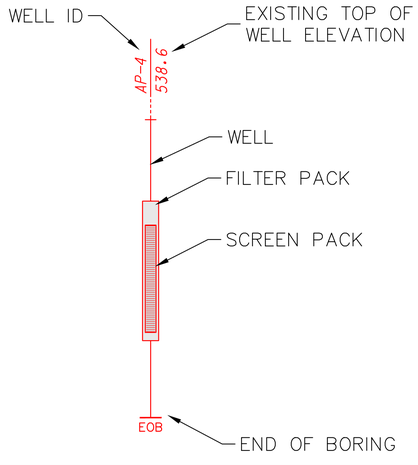


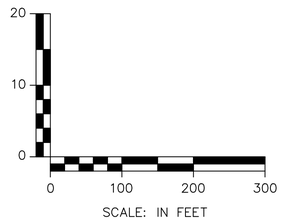
NOTES

1. DEPTH AND THICKNESS OF SUBSURFACE STRATA WERE GENERALIZED FROM AND INTERPOLATED BETWEEN BORINGS. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE LOCATION OF THE BORING. SEE BORING LOGS FOR DETAILED DESCRIPTION.
2. SURFACE GENERATED FROM LIDAR DATA DERIVED FROM USGS WEBSITE (FLIGHT DATE: MAY 16, 2023).
3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION F-F'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE:
SEPTEMBER 2025

PROJECT ID:
240338/0014

SHEET NUMBER:

F-F'

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SOUTH

G

MSL

D-D'

E-E'

I-I'

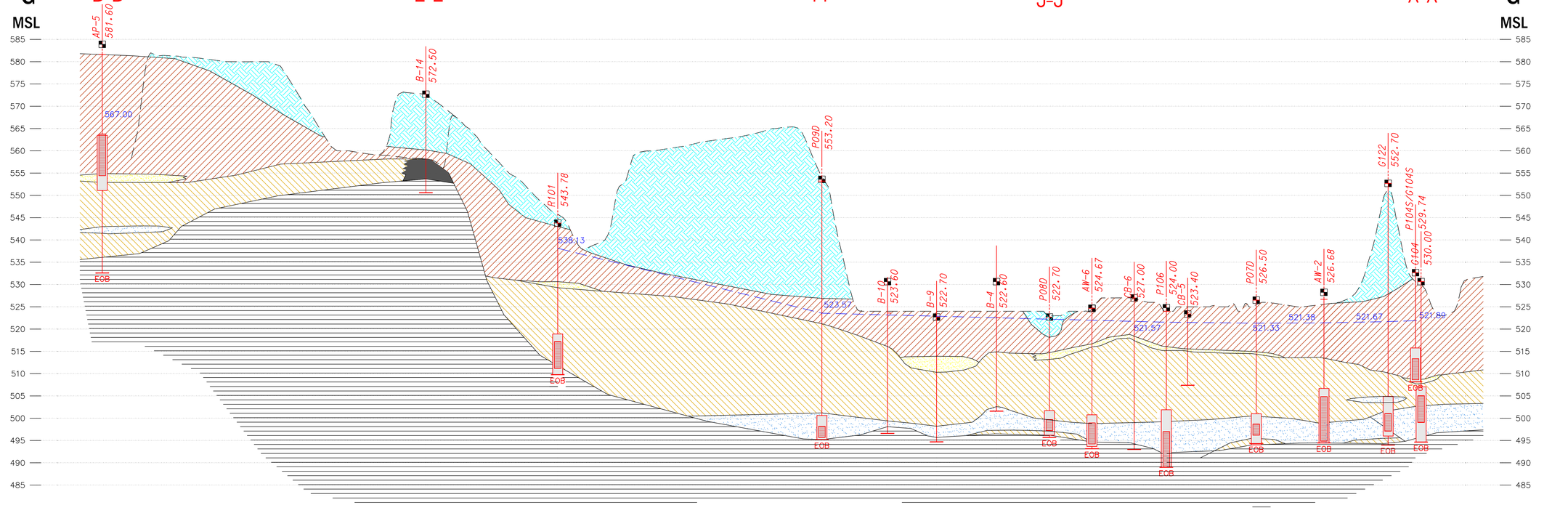
J-J'

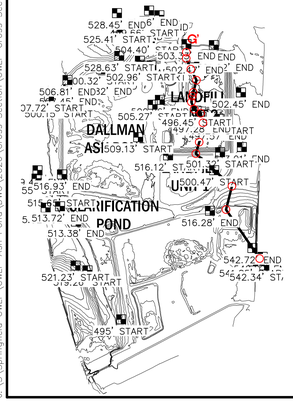
A-A'

G'

NORTH

MSL





NOTES

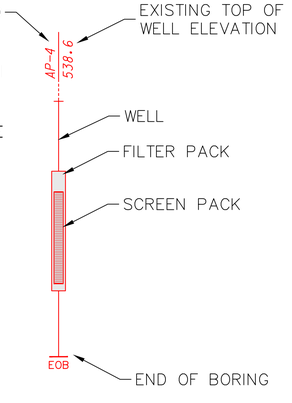
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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

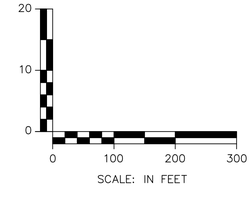
LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- COAL
- MONITORING WELL LOCATION

525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)

BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

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APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

CROSS-SECTION G-G'

PLANS PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2026

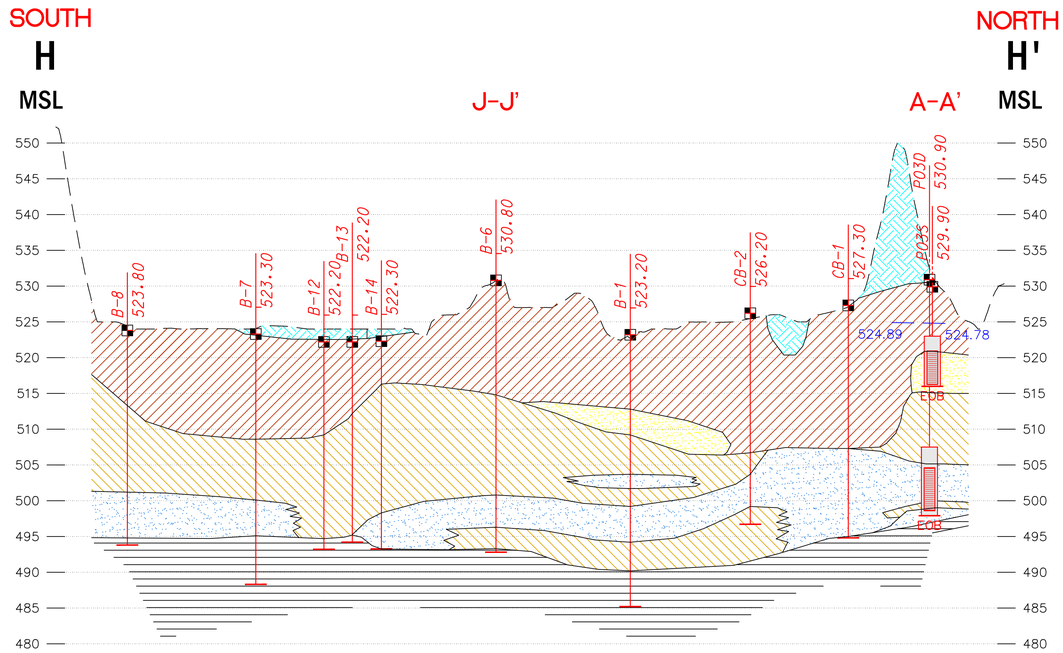
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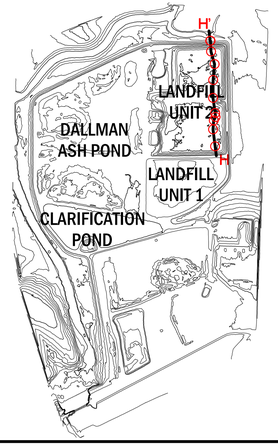
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G-G'

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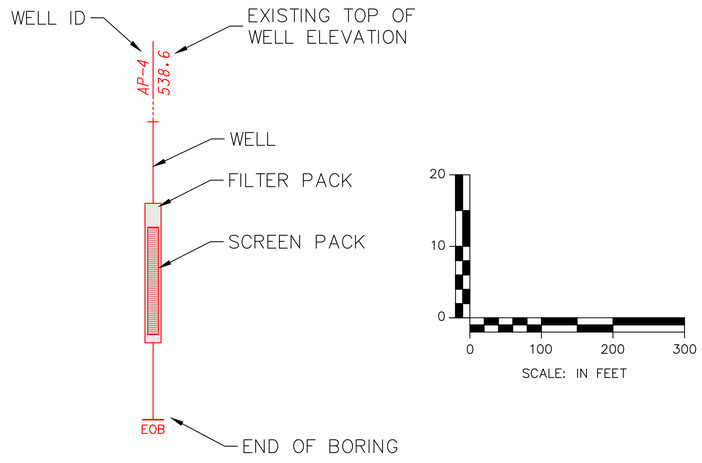


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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
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SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: MTH | DESIGNED BY: MTH | DRAWN BY: BCK

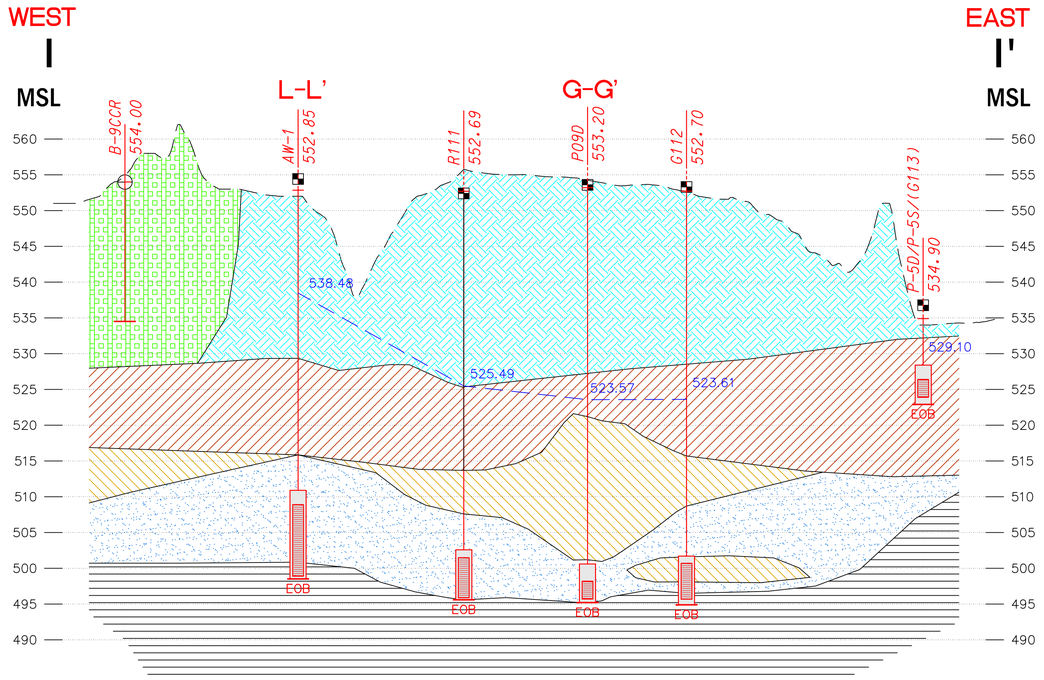
GEOLOGIC CROSS-SECTION H-H'

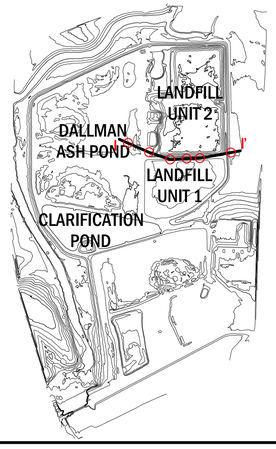
PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025
PROJECT ID: 240338/0014
SHEET NUMBER: H-H'

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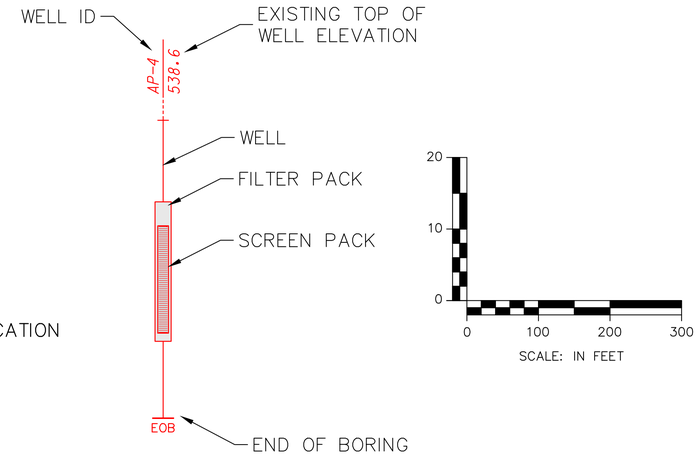


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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE
- BASAL SAND
- SHALE
- CCR ASH
- BORING LOCATION
- MONITORING WELL LOCATION



NO.	DATE	REVISION DESCRIPTION	BY

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PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | CHECKED BY: MTH | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION I-I'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

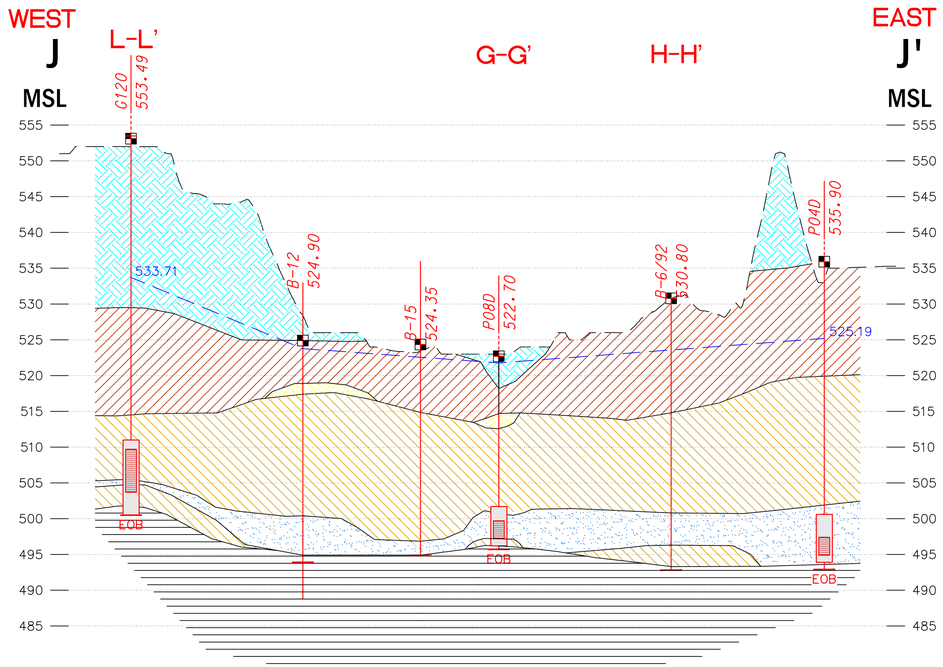
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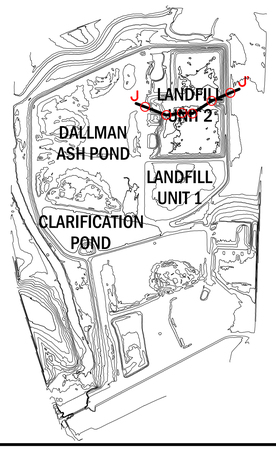
SHEET NUMBER:

I-I'

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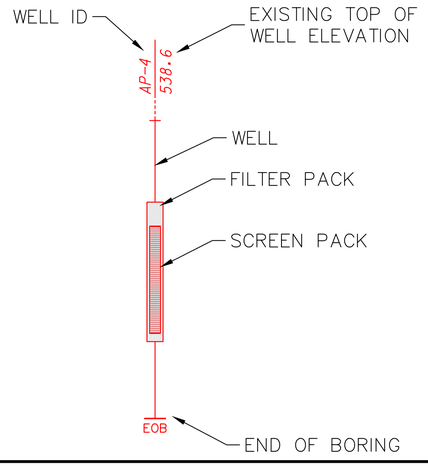


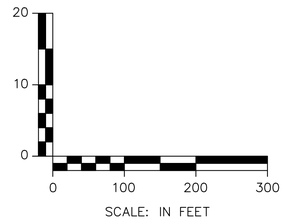
NOTES

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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

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SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION J-J'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

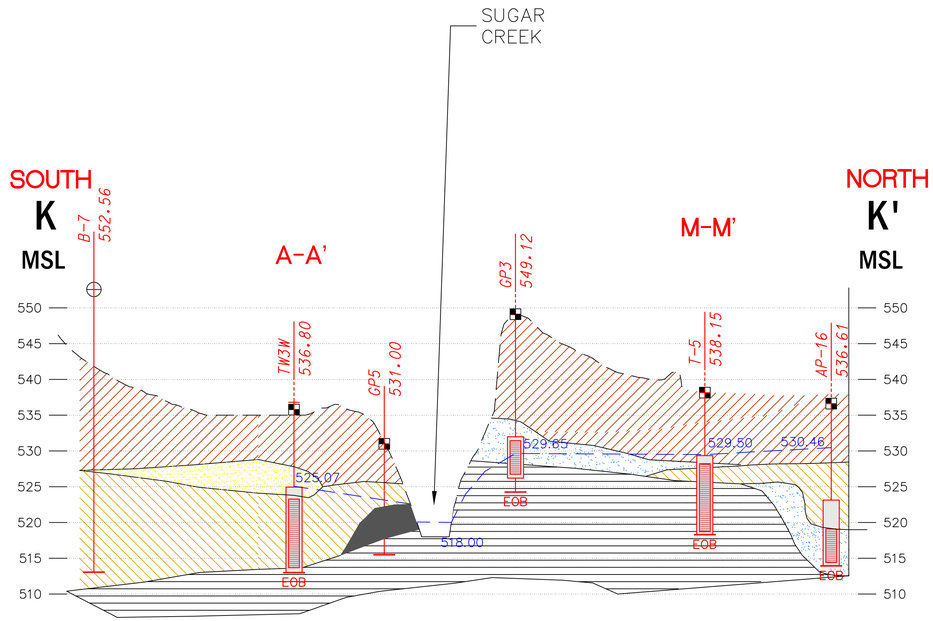
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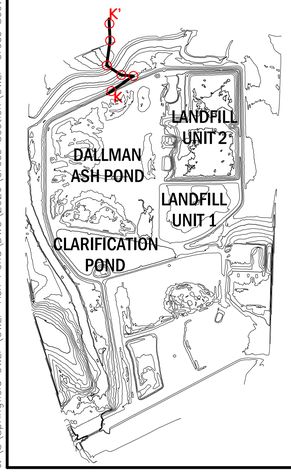
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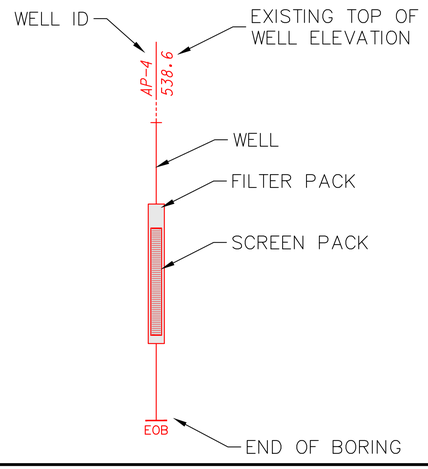


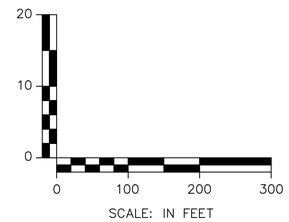
NOTES

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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- COAL
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





NO.	DATE	REVISION DESCRIPTION	BY

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PH (217) 787-2334 WWW.ANDREWS-ENG.COM
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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION K-K'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

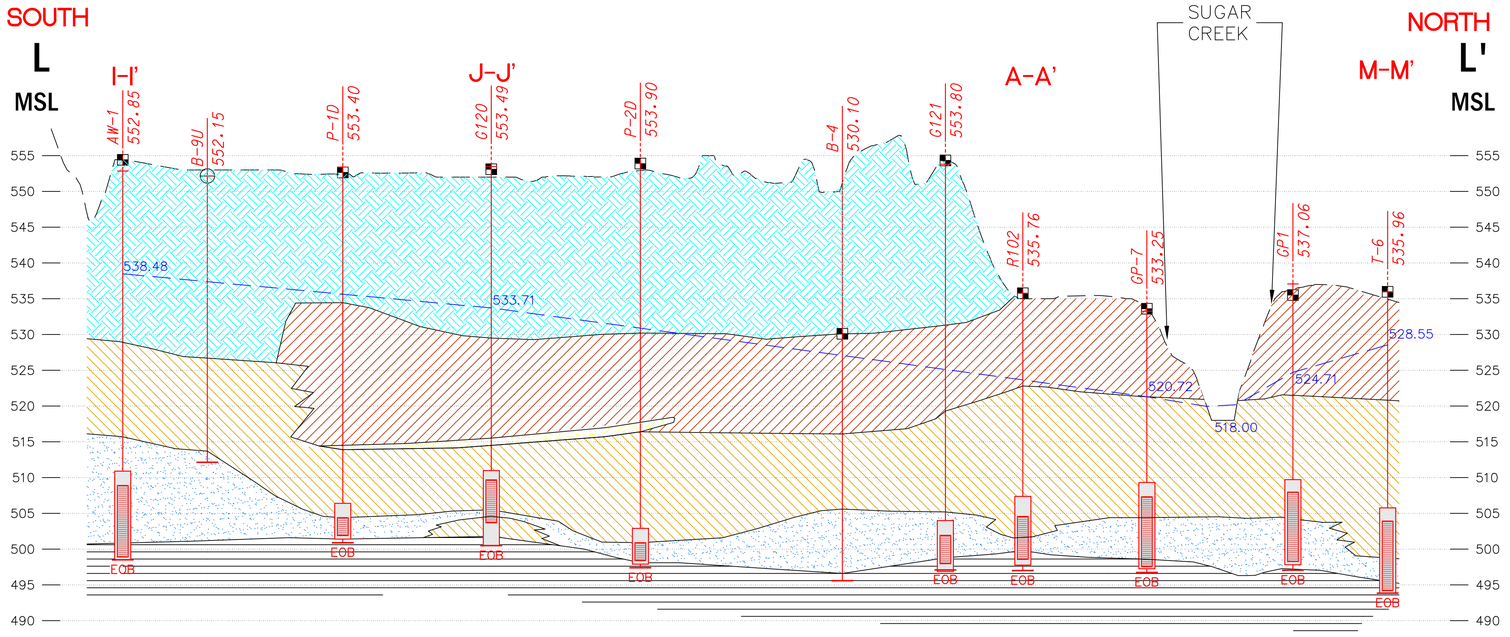
PROJECT ID: 240338/0014

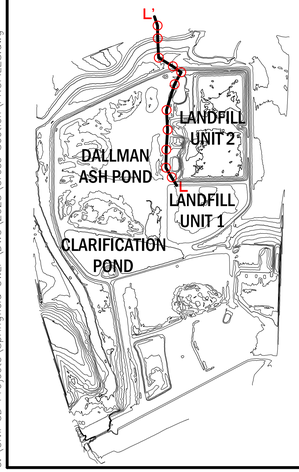
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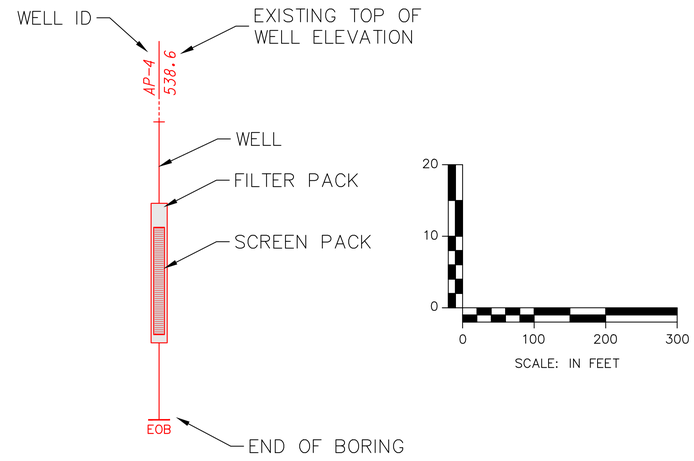


NOTES

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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALLOW SAND
- SHALE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

ANDREWS ENGINEERING
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION L-L'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

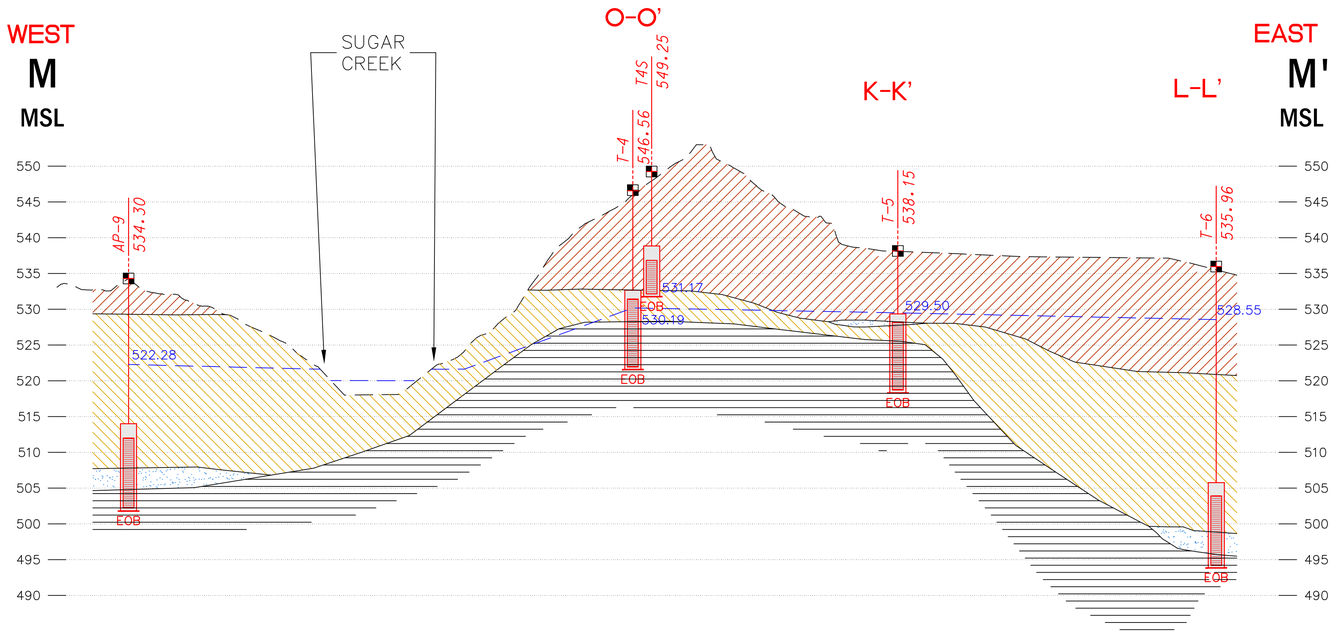
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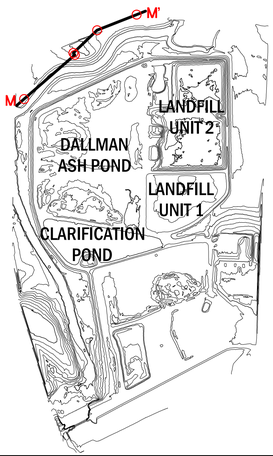
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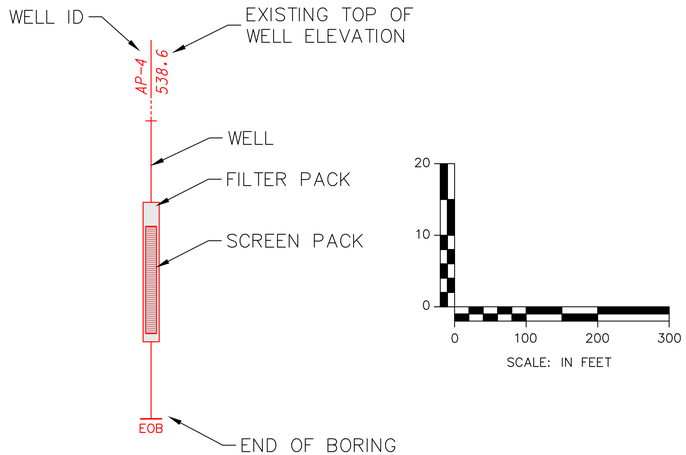


NOTES

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3. WELL/BORING SYMBOL PLACED AT SURFACE ELEVATION AT THE TIME THE BORING WAS COMPLETED.

LEGEND

- UPPER COHESIVE DEPOSIT
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 — GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

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PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION M-M'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

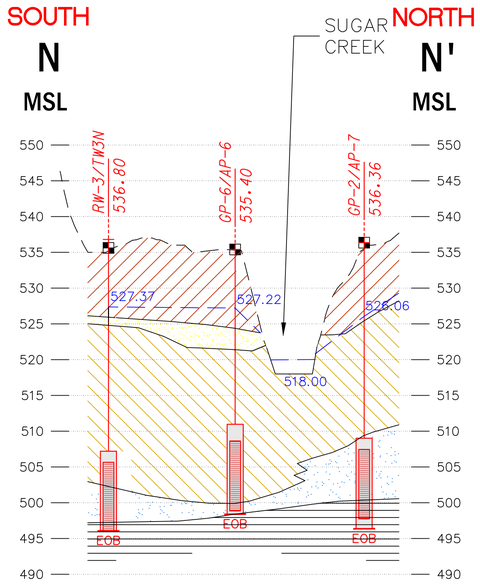
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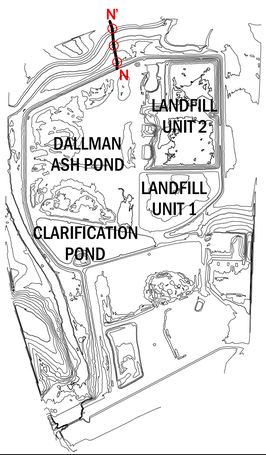
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M-M'

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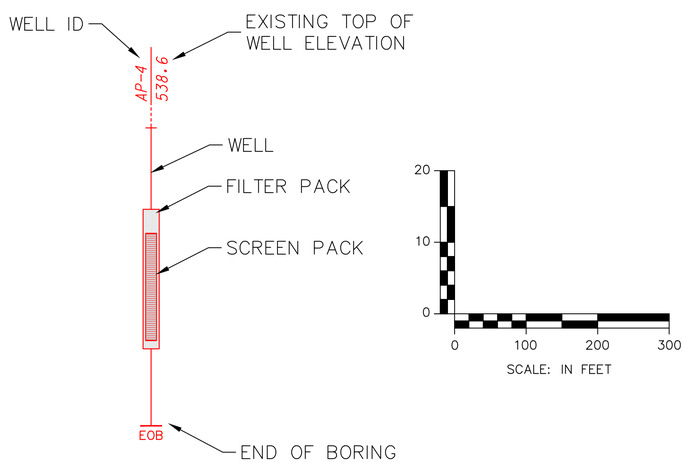


NOTES

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LEGEND

- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



NO.	DATE	REVISION DESCRIPTION	BY

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DESIGNED BY: MTH | DRAWN BY: BCK | APPROVED BY: MTH

GEOLOGIC CROSS-SECTION N-N'

PREPARED FOR
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SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

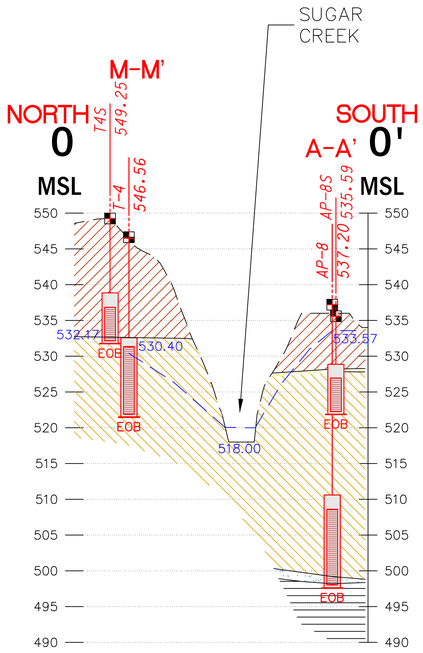
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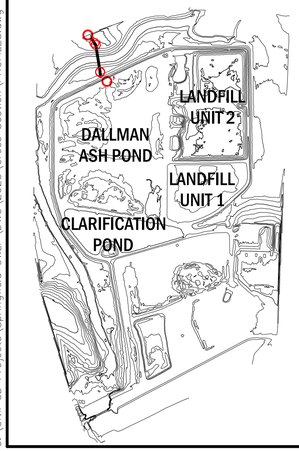
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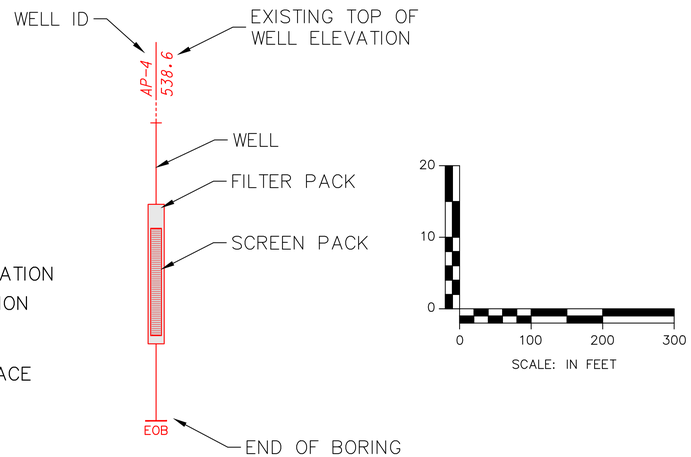


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LEGEND

- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- BORING LOCATION
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



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GEOLOGIC CROSS-SECTION O-O'

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SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

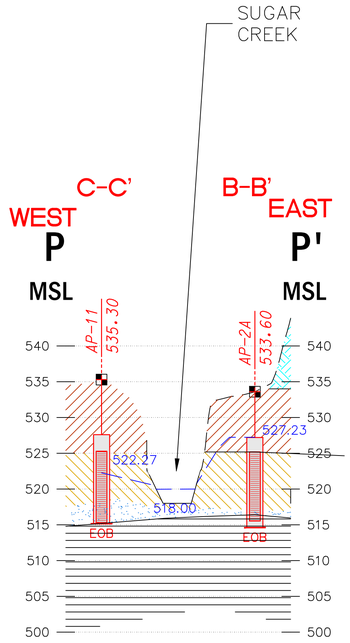
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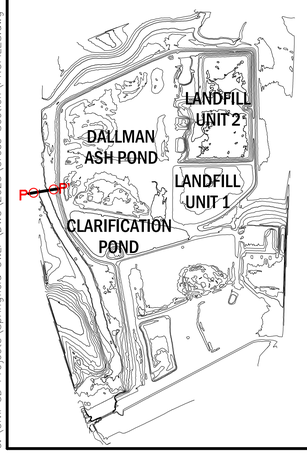
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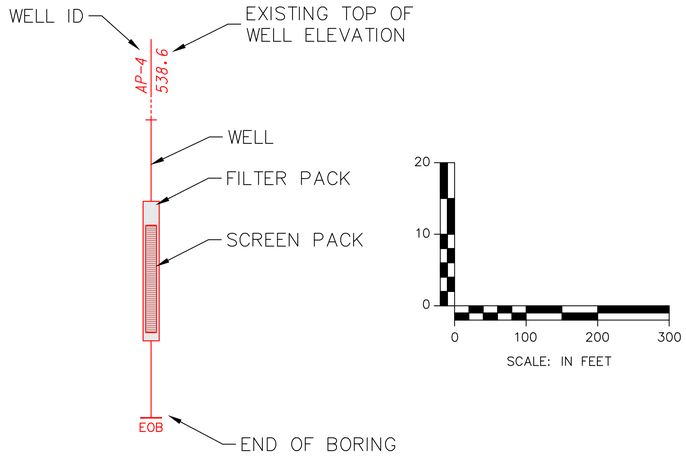


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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE



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GEOLOGIC CROSS-SECTION P-P'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2025

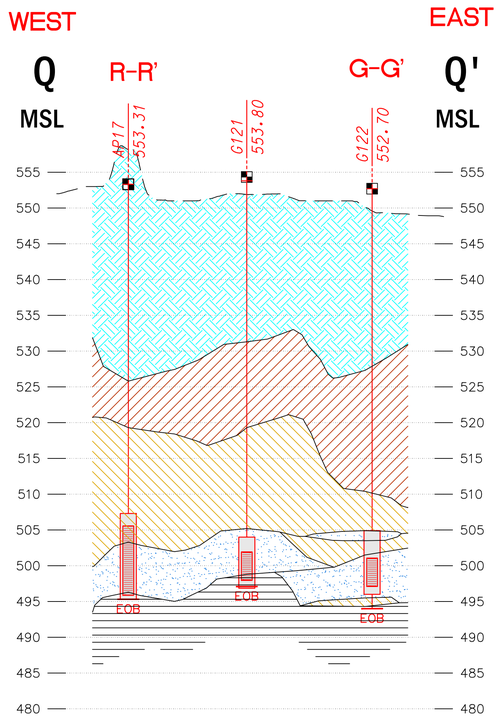
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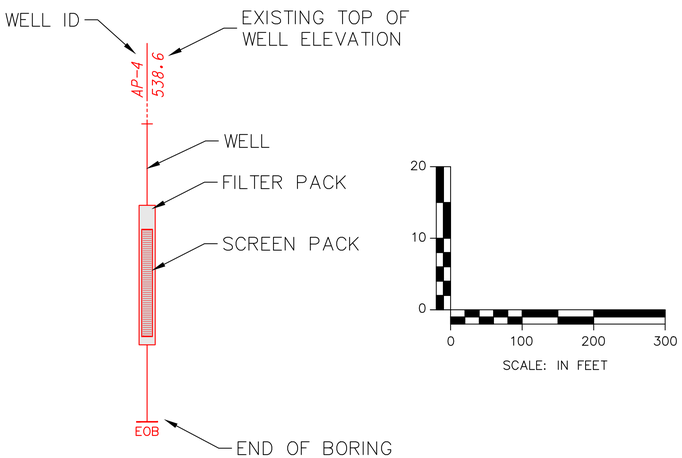
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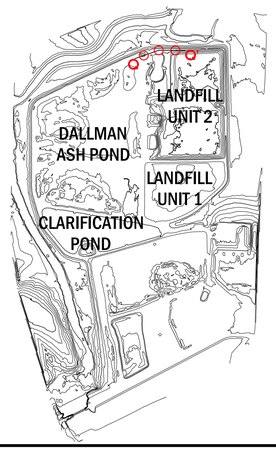
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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
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PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

DESIGNED BY: MTH | DRAWN BY: BCK | CHECKED BY: MTH | APPROVED BY: MTH

CROSS-SECTION Q-Q'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2026

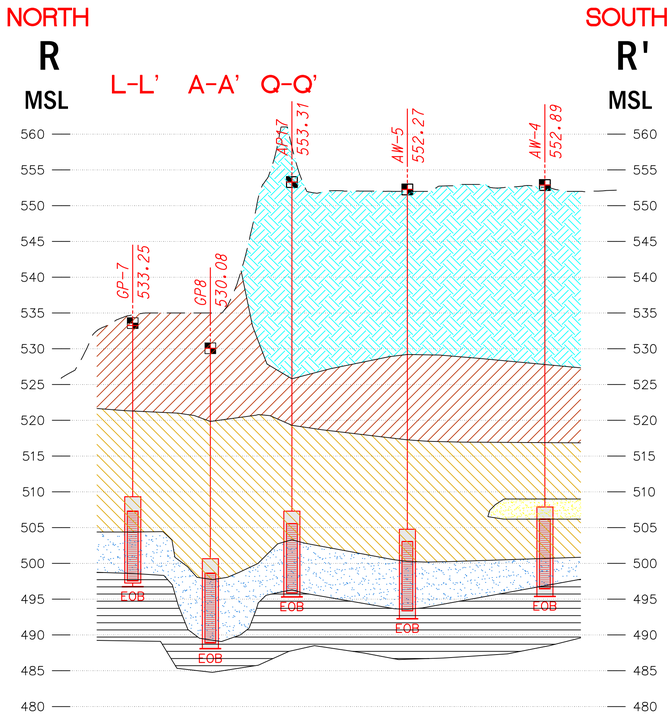
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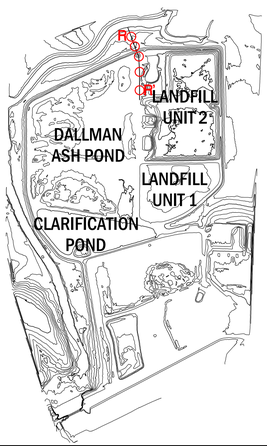
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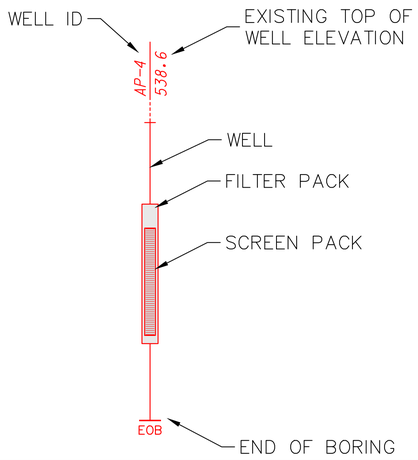


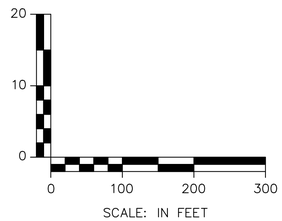
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LEGEND

- FILL
- UPPER COHESIVE DEPOSIT
- SHALLOW SAND
- LOWER COHESIVE DEPOSIT
- BASAL SAND
- SHALE
- MONITORING WELL LOCATION
- 525.00 GROUNDWATER ELEVATION (AUGUST 21, 2025)
- BASAL SAND POTENTIOMETRIC SURFACE





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DESIGNED BY: MTH | DRAWN BY: BCK | CHECKED BY: MTH | APPROVED BY: MTH

CROSS-SECTION R-R'

PREPARED FOR
CITY WATER, LIGHT, AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: SEPTEMBER 2026

PROJECT ID: 4926.1207.00

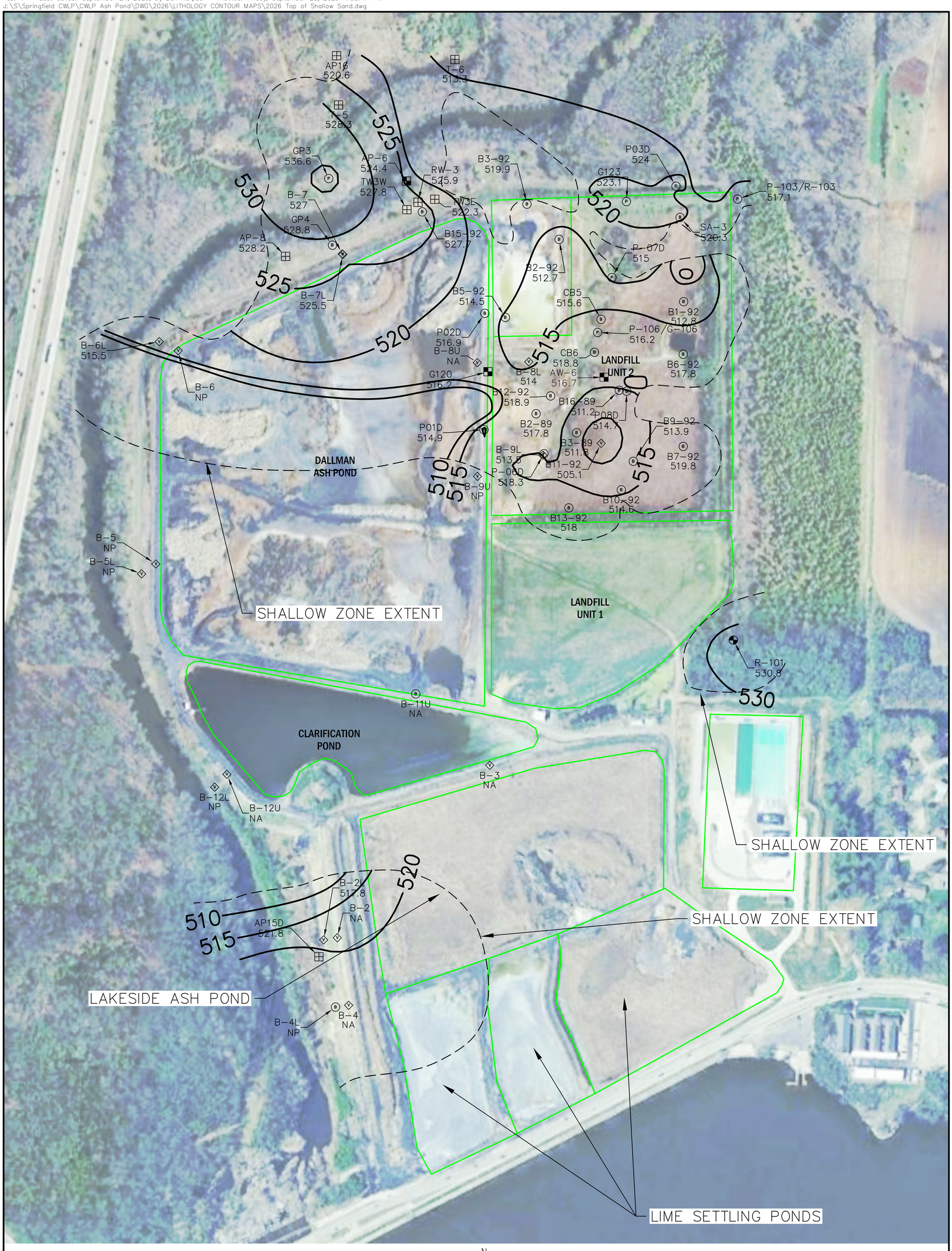
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R-R'

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APPENDIX E:
UNIT SURFACES AND ISOPACHS



N

0 150 300 600

SCALE: IN FEET

LEGEND

POND/LANDFILL BOUNDARY

510 ELEVATION CONTOURS

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.
2. CONTOUR INTERVAL = 5 FT

FIG. 1

SHEET NUMBER:

PROJECT ID: 4926.1207.00

DATE: AUGUST 2026

2026 TOP OF SHALLOW SAND

PREPARED FOR

CITY WATER, LIGHT, AND POWER

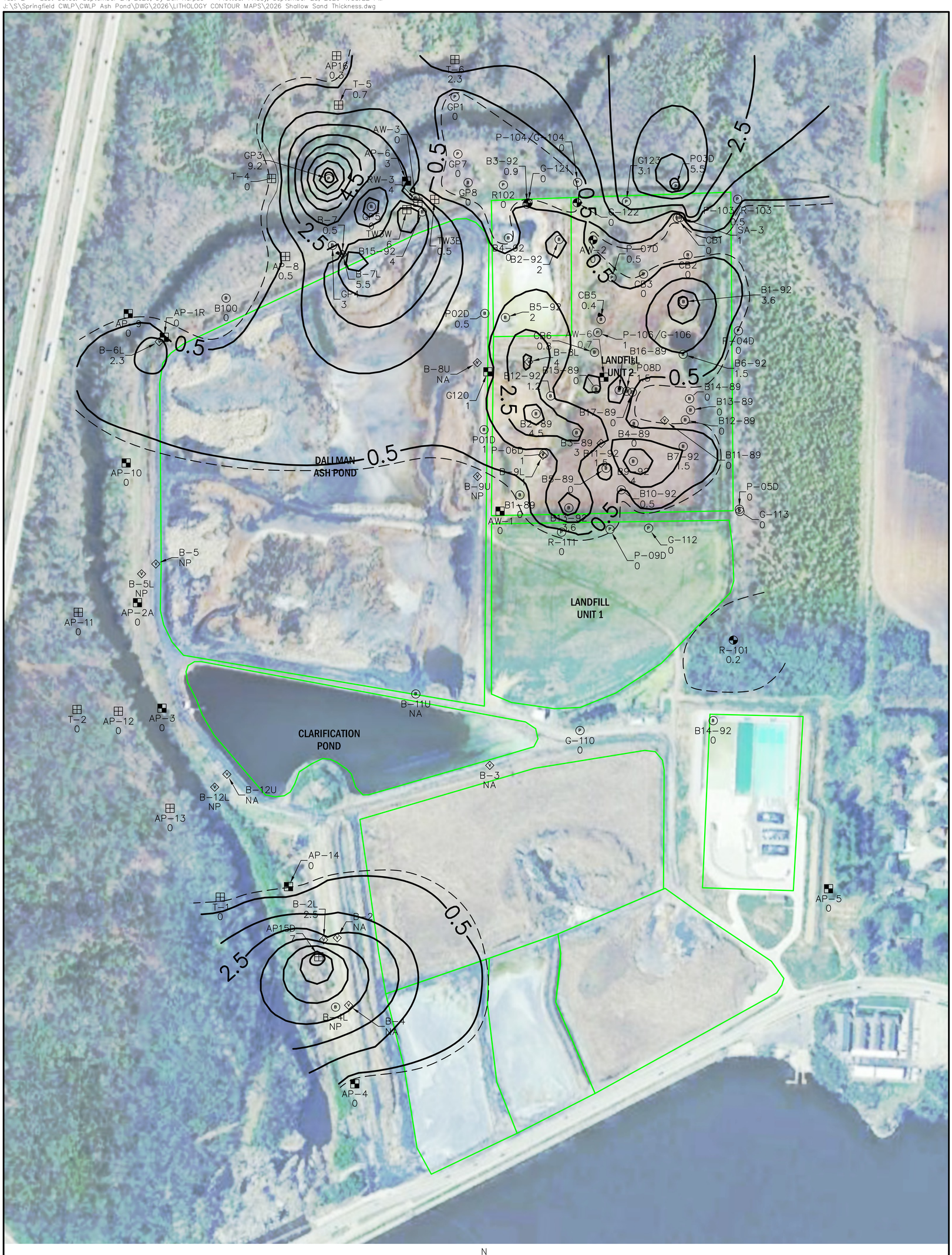
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NO.	DATE	REVISION DESCRIPTION	BY

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LEGEND

POND/LANDFILL BOUNDARY

510 THICKNESS CONTOURS

N

0 150 300 600

SCALE: IN FEET

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.
2. CONTOUR INTERVAL = 5 FT

FIG. 2

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PROJECT ID: 4926.1207.00

DATE: AUGUST 2026

2026 SHALLOW SAND THICKNESS

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NO.	DATE	REVISION DESCRIPTION	BY



LEGEND

POND/LANDFILL BOUNDARY

510 ELEVATION CONTOURS

N

0 150 300 600

SCALE: IN FEET

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.
2. CONTOUR INTERVAL = 5 FT

FIG. 3

SHEET NUMBER:

PROJECT ID: 4926.1207.00

DATE: AUGUST 2026

2026 TOP OF UPPER COHESIVE DEPOSIT

PREPARED FOR

CITY WATER, LIGHT, AND POWER

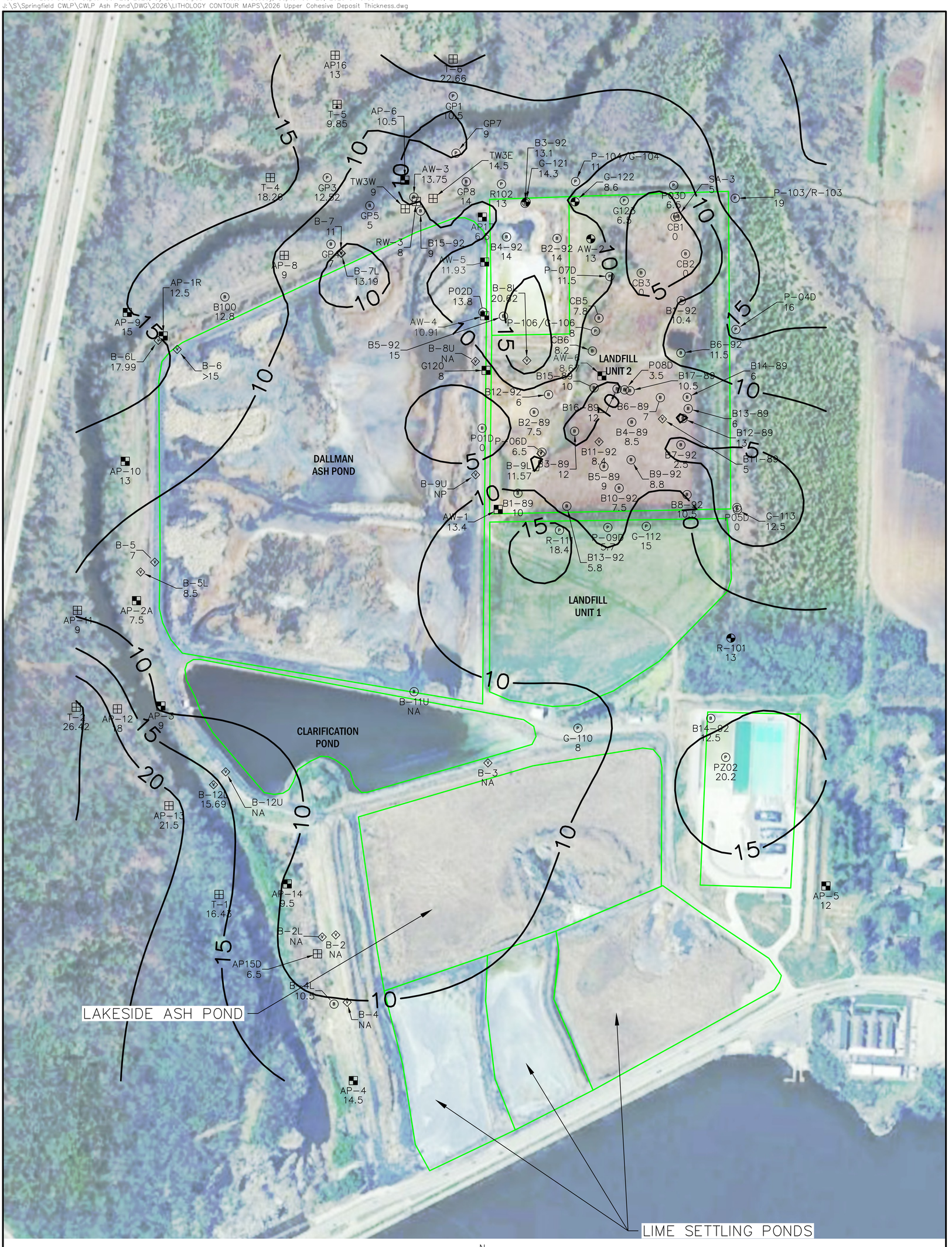
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LEGEND

POND/LANDFILL BOUNDARY

510 THICKNESS CONTOURS

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.
2. CONTOUR INTERVAL = 5 FT

FIG. 4

2026 UPPER COHESIVE DEPOSIT THICKNESS

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

SHEET NUMBER:

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N

0 150 300 600

SCALE: IN FEET

LEGEND

POND/LANDFILL BOUNDARY

510 ELEVATION CONTOURS

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.
2. CONTOUR INTERVAL = 5 FT

FIG. 5

SHEET NUMBER:

PROJECT ID: 4926.1207.00

DATE: AUGUST 2026

2026 TOP OF LOWER COHESIVE DEPOSIT

PREPARED FOR

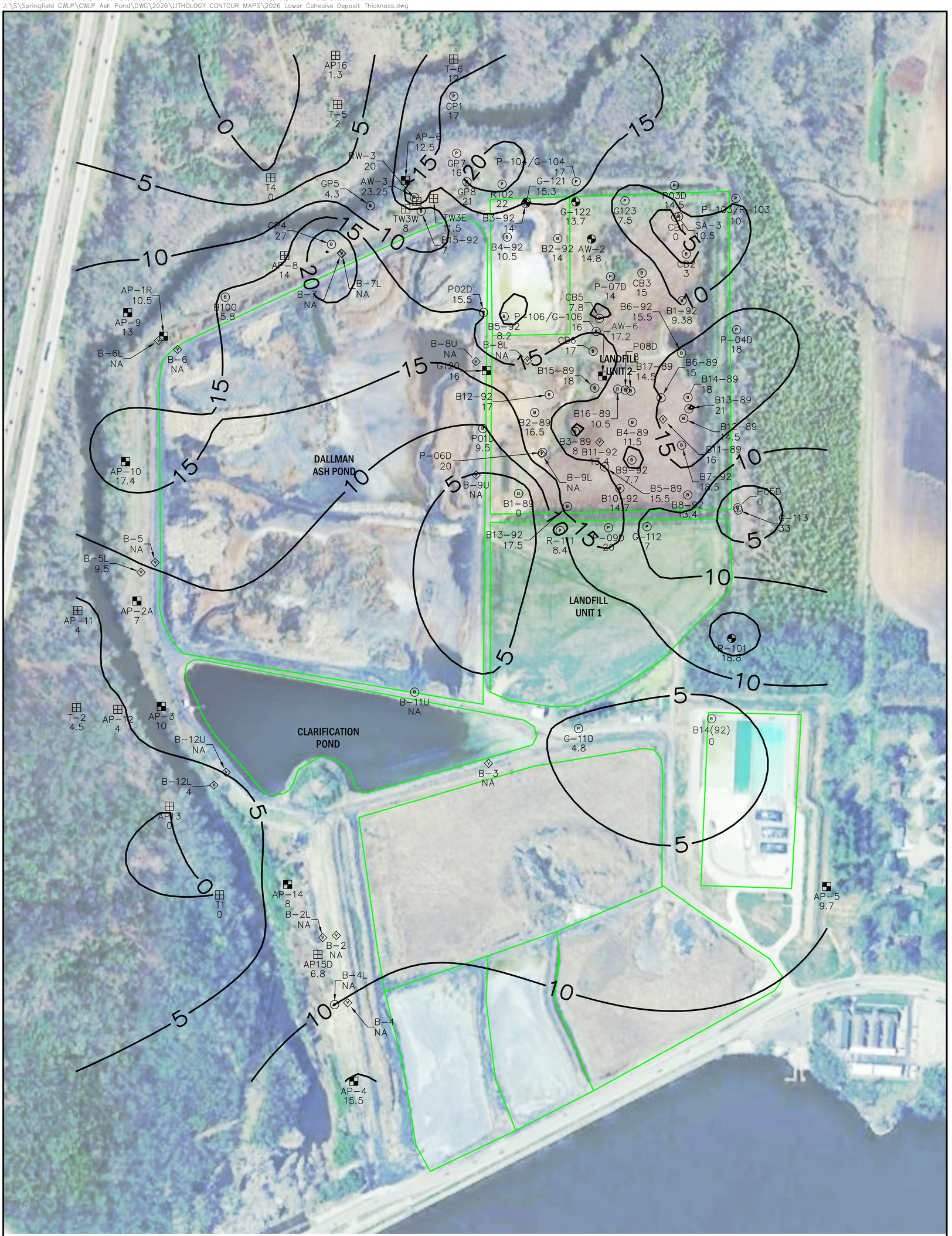
CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

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APPROVED BY: NGB | DESIGNED BY: NGB | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY



LEGEND

POND/LANDFILL BOUNDARY

510 THICKNESS CONTOURS

N

0 150 300 600

SCALE: IN FEET

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.
2. CONTOUR INTERVAL = 5 FT

FIG. 6

SHEET NUMBER:

PROJECT ID: 4926.1207.00

DATE: AUGUST 2026

2026 LOWER COHESIVE DEPOSIT THICKNESS

PREPARED FOR

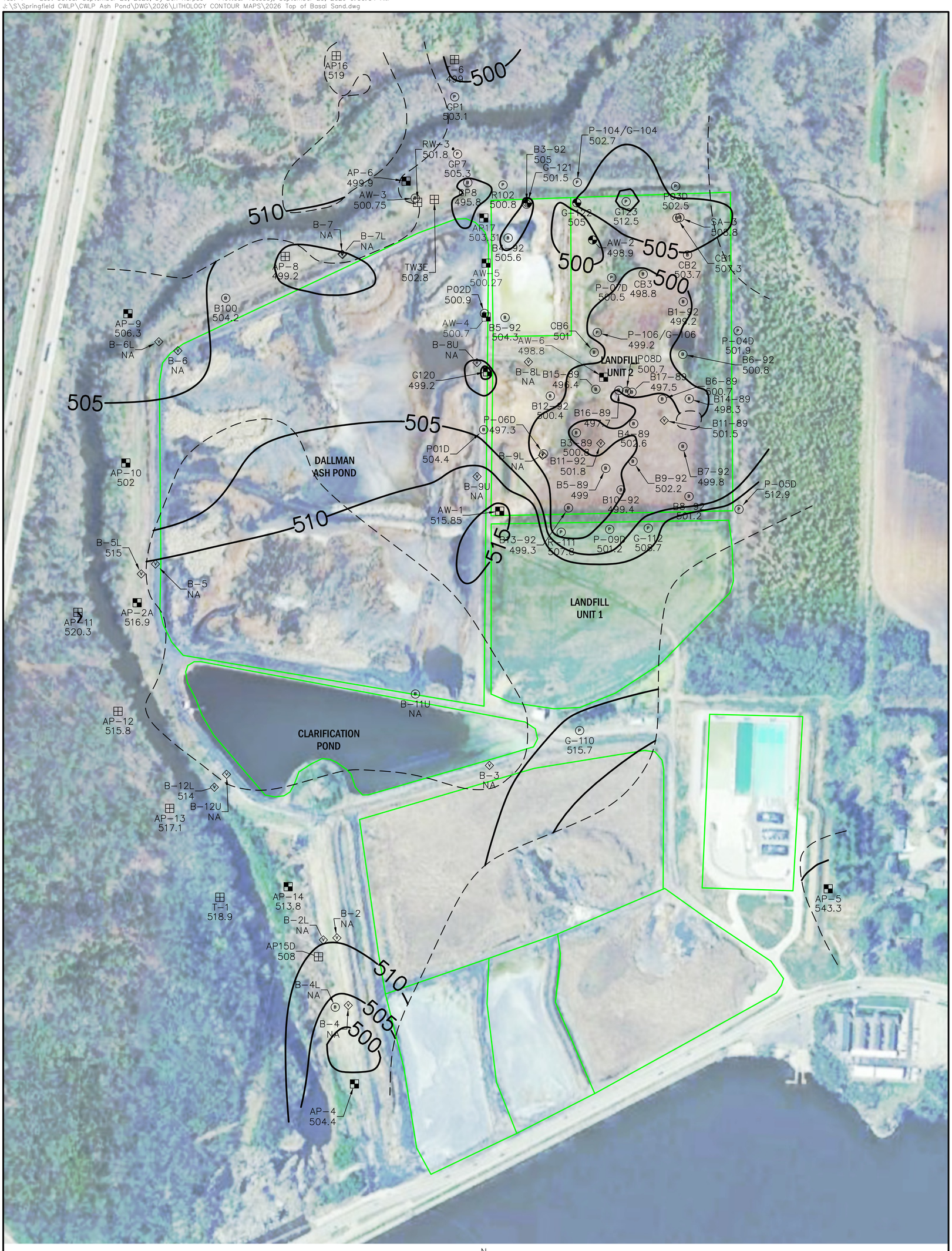
CITY WATER, LIGHT, AND POWER

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NO.	DATE	REVISION DESCRIPTION	BY



LEGEND

POND/LANDFILL BOUNDARY

510 ELEVATION CONTOURS

N

0 150 300 600

SCALE: IN FEET

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.
2. CONTOUR INTERVAL = 5 FT

FIG. 7

SHEET NUMBER:

PROJECT ID: 4926.1207.00

DATE: AUGUST 2026

2026 TOP OF BASAL SAND

PREPARED FOR

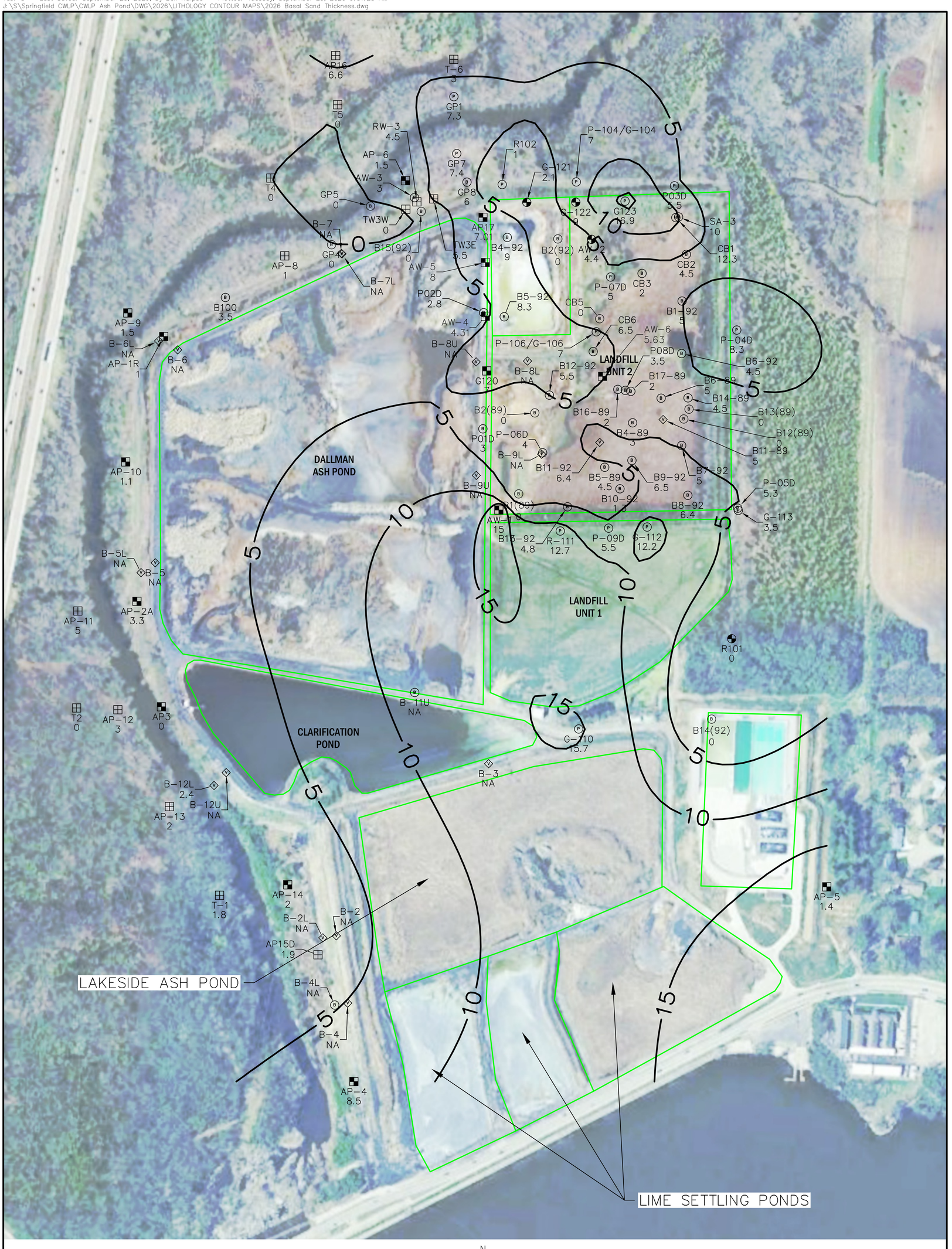
CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

ANDREWS ENGINEERING
a Geo-Logic Company
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MO

APPROVED BY: NGB | DESIGNED BY: NGB | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY



LEGEND

POND/LANDFILL BOUNDARY

510 THICKNESS CONTOURS

N

0 150 300 600

SCALE: IN FEET

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.
2. CONTOUR INTERVAL = 5 FT

FIG. 8

2026 BASAL SAND THICKNESS

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: AUGUST 2026

PROJECT ID: 492E.1207.00

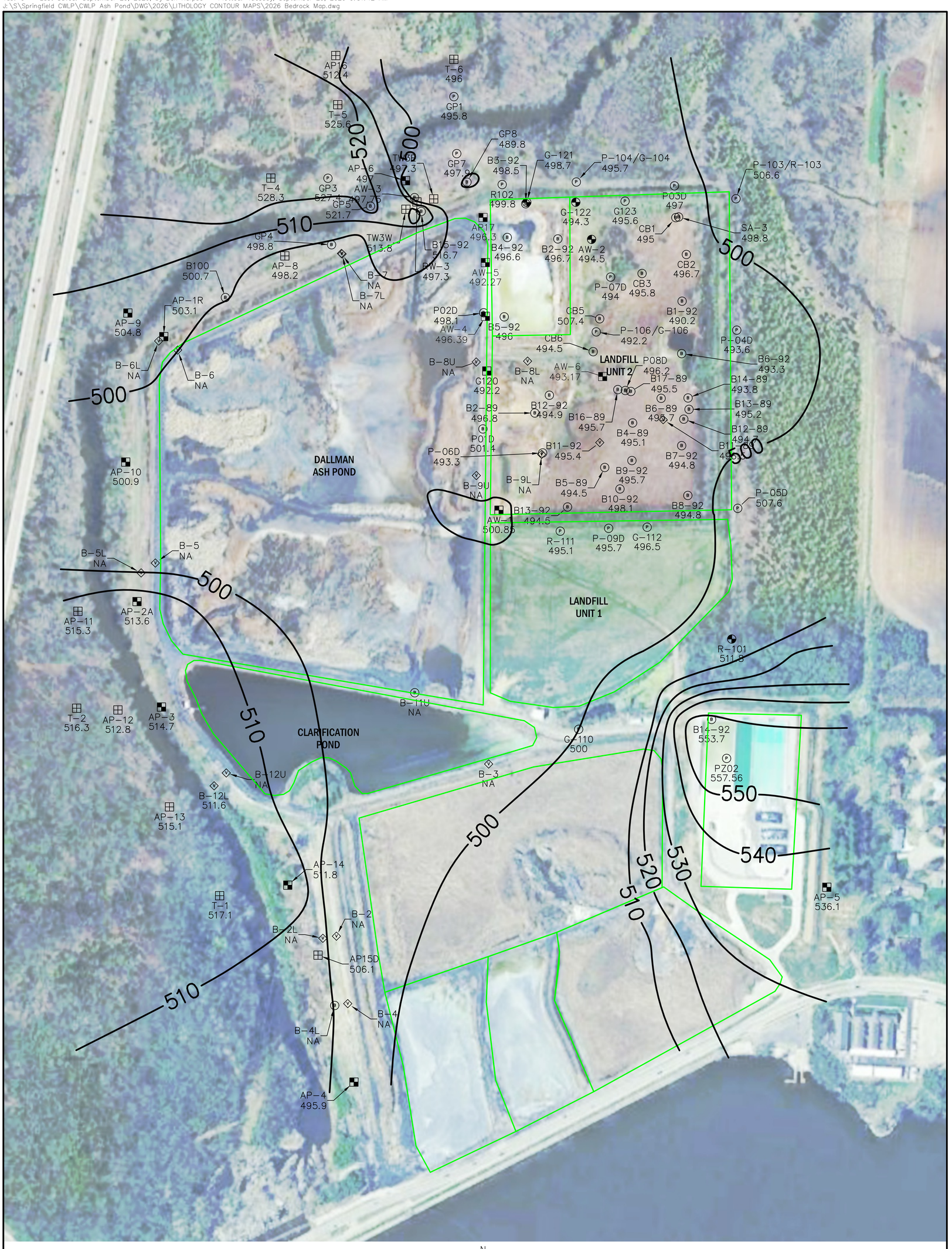
SHEET NUMBER:

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NO.	DATE	REVISION DESCRIPTION	BY

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N

0 150 300 600

SCALE: IN FEET

LEGEND

POND/LANDFILL BOUNDARY

510 ELEVATION CONTOURS

NOTE

1. AERIAL IMAGE FROM APRIL 7, 2024, FROM GOOGLE EARTH.
2. CONTOUR INTERVAL = 10 FT

FIG. 9

2026 BEDROCK MAP

PREPARED FOR

CITY WATER, LIGHT, AND POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

SHEET NUMBER:

PROJECT ID: 4926.1207.00

DATE: AUGUST 2026

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APPROVED BY: NGB | DESIGNED BY: NGB | DRAWN BY: BCK

NO.	DATE	REVISION DESCRIPTION	BY

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APPENDIX F:
GWSDAT INPUT DATA AND OUTPUT GRAPHICS

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data

WellName	Constituent	SampleDate	Result	Units	Flags
AP1	Arsenic, total	11/18/2016	ND<0.025	mg/l	
AP1	Arsenic, total	2/16/2017	ND<0.025	mg/l	
AP1	Arsenic, total	5/31/2017	ND<0.025	mg/l	
AP1	Arsenic, total	8/2/2017	ND<0.025	mg/l	
AP1	Arsenic, total	11/9/2017	ND<0.025	mg/l	
AP1	Arsenic, total	5/4/2018	ND<0.025	mg/l	
AP1	Arsenic, total	7/9/2018	ND<0.025	mg/l	
AP1	Arsenic, total	2/13/2019	ND<0.025	mg/l	
AP1	Arsenic, total	8/1/2019	ND<0.025	mg/l	
AP1	Arsenic, total	3/5/2020	ND<0.025	mg/l	
AP1	Arsenic, total	8/5/2020	ND<0.025	mg/l	
AP1	Arsenic, total	1/21/2021	ND<0.025	mg/l	
AP1	Arsenic, total	5/27/2021	ND<0.025	mg/l	
AP1	Arsenic, total	8/24/2021	ND<0.025	mg/l	
AP1	Arsenic, total	11/10/2021	ND<0.025	mg/l	
AP1	Arsenic, total	2/15/2022	ND<0.025	mg/l	
AP1	Arsenic, total	5/31/2022	ND<0.025	mg/l	
AP1	Arsenic, total	8/23/2022	ND<0.025	mg/l	
AP1	Arsenic, total	11/8/2022	ND<0.025	mg/l	
AP1	Arsenic, total	1/27/2023	ND<0.025	mg/l	
AP1	Arsenic, total	4/12/2023	ND<0.025	mg/l	
AP1	Arsenic, total	7/7/2023	ND<0.001	mg/l	
AP1	Arsenic, total	10/26/2023	ND<0.001	mg/l	
AP1	Arsenic, total	2/21/2024	ND<0.001	mg/l	
AP1	Arsenic, total	5/13/2024	ND<0.001	mg/l	
AP1	Arsenic, total	8/12/2024	ND<0.001	mg/l	
AP1	Arsenic, total	11/11/2024	ND<0.001	mg/l	
AP1	Arsenic, total	2/18/2025	ND<0.001	mg/l	
AP1	Arsenic, total	5/28/2025	ND<0.001	mg/l	
AP1	Arsenic, total	8/12/2025	ND<0.001	mg/l	
AP1	Arsenic, total	11/13/2025	ND<0.001	mg/l	
AP1	Arsenic, total	2/12/2026	ND<0.001	mg/l	
AP1	Arsenic, total	4/22/2026	0.003	mg/l	
AP1	Arsenic, total	7/27/2026	ND<0.001	mg/l	
AP10	Arsenic, total	5/26/2021	ND<0.025	mg/l	
AP10	Arsenic, total	6/22/2021	ND<0.025	mg/l	
AP10	Arsenic, total	7/16/2021	ND<0.025	mg/l	
AP10	Arsenic, total	11/9/2021	ND<0.025	mg/l	
AP10	Arsenic, total	5/31/2022	ND<0.025	mg/l	
AP10	Arsenic, total	8/23/2022	ND<0.025	mg/l	
AP10	Arsenic, total	11/8/2022	ND<0.025	mg/l	
AP10	Arsenic, total	2/16/2023	ND<0.025	mg/l	
AP10	Arsenic, total	4/12/2023	ND<0.025	mg/l	
AP10	Arsenic, total	7/7/2023	0.0013	mg/l	
AP10	Arsenic, total	10/26/2023	ND<0.001	mg/l	
AP10	Arsenic, total	2/21/2024	0.0011	mg/l	
AP10	Arsenic, total	5/13/2024	ND<0.001	mg/l	
AP10	Arsenic, total	8/13/2024	ND<0.001	mg/l	
AP10	Arsenic, total	11/12/2024	0.0011	mg/l	
AP10	Arsenic, total	2/19/2025	ND<0.001	mg/l	
AP10	Arsenic, total	5/21/2025	0.0015	mg/l	
AP10	Arsenic, total	8/13/2025	0.0012	mg/l	
AP10	Arsenic, total	11/12/2025	ND<0.001	mg/l	
AP10	Arsenic, total	2/12/2026	ND<0.001	mg/l	
AP10	Arsenic, total	4/22/2026	0.0017	mg/l	
AP10	Arsenic, total	7/23/2026	ND<0.001	mg/l	
AP11	Arsenic, total	8/25/2021	ND<0.025	mg/l	
AP11	Arsenic, total	2/16/2022	ND<0.025	mg/l	
AP11	Arsenic, total	6/1/2022	ND<0.025	mg/l	
AP11	Arsenic, total	8/25/2022	ND<0.025	mg/l	
AP11	Arsenic, total	11/9/2022	ND<0.025	mg/l	
AP11	Arsenic, total	2/16/2023	ND<0.025	mg/l	
AP11	Arsenic, total	4/17/2023	ND<0.025	mg/l	
AP11	Arsenic, total	7/7/2023	ND<0.001	mg/l	
AP11	Arsenic, total	10/26/2023	ND<0.001	mg/l	
AP11	Arsenic, total	2/26/2024	ND<0.001	mg/l	
AP11	Arsenic, total	5/9/2024	0.0037	mg/l	
AP11	Arsenic, total	8/12/2024	ND<0.001	mg/l	
AP11	Arsenic, total	11/12/2024	ND<0.001	mg/l	
AP11	Arsenic, total	2/20/2025	0.0015	mg/l	
AP11	Arsenic, total	5/22/2025	ND<0.001	mg/l	
AP11	Arsenic, total	8/12/2025	ND<0.001	mg/l	
AP11	Arsenic, total	11/13/2025	ND<0.001	mg/l	
AP11	Arsenic, total	2/11/2026	ND<0.001	mg/l	
AP11	Arsenic, total	4/21/2026	ND<0.001	mg/l	
AP11	Arsenic, total	7/27/2026	ND<0.001	mg/l	
AP12	Arsenic, total	8/25/2021	ND<0.025	mg/l	
AP12	Arsenic, total	2/16/2022	ND<0.025	mg/l	
AP12	Arsenic, total	6/1/2022	ND<0.025	mg/l	
AP12	Arsenic, total	8/25/2022	ND<0.025	mg/l	

Well Coordinates

WellName	XCoord	YCoord	Aquifer	CoordUnits
AP1	831.70	5132.40	A	feet
AP10	695.60	4684.00	A	
AP11	524.50	4150.60	A	
AP12	667.60	3797.70	A	
AP13	852.10	3451.20	A	
AP14	1275.20	3171.50	A	
AP17	1958.57	5578.23	A	
AP2	735.90	4185.20	A	
AP3	823.40	3808.30	A	
AP4	1511.80	2467.60	A	
AP5	3203.10	3164.10	A	
AP6	1696.30	5689.97	A	
AP7	1634.67	5896.65	A	
AP8	1264.65	5420.93	A	
AP9	703.00	5216.80	A	
AW1	2030.40	4511.90	A	
AW2	2361.82	5479.98	A	
AW4	1966.10	5225.12	A	
AW5	1965.98	5417.32	A	
AW6	2384.81	5008.96	A	
G110	2315.70	3728.60	A	
G112	2560.52	4450.90	A	
G120	1986.90	5009.40	A	
G121	2130.18	5612.17	A	
G122	2305.27	5612.71	A	
GP1	1869.49	5990.31	A	
GP3	1418.89	5698.51	A	
GP7	1879.57	5786.46	A	
GP8	1916.11	5684.45	A	
P03D	2658.43	5671.14	A	
P04D	2881.14	5155.39	A	
P05D	2884.70	4518.50	A	
P06D	2186.93	4716.39	A	
P07D	2429.80	5345.28	A	
P09D	2422.82	4446.98	A	
P104	2307.37	5685.09	A	
P106	2378.63	5149.29	A	
R101	2863.06	4051.35	A	
R103	2878.40	5625.30	A	
R111	2249.83	4436.67	A	
RW3	1737.18	5614.09	A	
T1	1031.27	3133.86	A	
T2	520.12	3803.94	A	
T4	1214.73	5699.29	A	
T5	1453.85	5961.45	A	
T6	1869.10	6123.79	A	

GIS ShapeFiles

Filenames (*.shp)
J:\S\Springfield CWLP\CWLP Ash Pond\GEO\GWSDAT\aerial.shp

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AP12	Arsenic, total	11/9/2022	ND<0.025	mg/l							
AP12	Arsenic, total	2/16/2023	ND<0.025	mg/l							
AP12	Arsenic, total	4/17/2023	ND<0.025	mg/l							
AP12	Arsenic, total	7/7/2023	ND<0.001	mg/l							
AP12	Arsenic, total	10/26/2023	0.0149	mg/l							
AP12	Arsenic, total	2/26/2024	0.0013	mg/l							
AP12	Arsenic, total	5/9/2024	0.0038	mg/l							
AP12	Arsenic, total	8/12/2024	0.0015	mg/l							
AP12	Arsenic, total	11/12/2024	ND<0.001	mg/l							
AP12	Arsenic, total	2/20/2025	ND<0.001	mg/l							
AP12	Arsenic, total	5/22/2025	ND<0.001	mg/l							
AP12	Arsenic, total	8/12/2025	ND<0.001	mg/l							
AP12	Arsenic, total	11/13/2025	ND<0.001	mg/l							
AP12	Arsenic, total	2/11/2026	ND<0.001	mg/l							
AP12	Arsenic, total	4/21/2026	ND<0.001	mg/l							
AP12	Arsenic, total	7/27/2026	ND<0.001	mg/l							
AP13	Arsenic, total	8/25/2021	ND<0.025	mg/l							
AP13	Arsenic, total	2/16/2022	ND<0.025	mg/l							
AP13	Arsenic, total	6/1/2022	ND<0.025	mg/l							
AP13	Arsenic, total	8/25/2022	ND<0.025	mg/l							
AP13	Arsenic, total	11/9/2022	ND<0.025	mg/l							
AP13	Arsenic, total	2/16/2023	ND<0.025	mg/l							
AP13	Arsenic, total	4/17/2023	ND<0.025	mg/l							
AP13	Arsenic, total	7/7/2023	0.0031	mg/l							
AP13	Arsenic, total	10/26/2023	0.0075	mg/l							
AP13	Arsenic, total	2/26/2024	0.0028	mg/l							
AP13	Arsenic, total	5/9/2024	0.0032	mg/l							
AP13	Arsenic, total	8/12/2024	0.0029	mg/l							
AP13	Arsenic, total	11/12/2024	0.0038	mg/l							
AP13	Arsenic, total	2/20/2025	ND<0.001	mg/l							
AP13	Arsenic, total	5/22/2025	0.0032	mg/l							
AP13	Arsenic, total	8/13/2025	0.002	mg/l							
AP13	Arsenic, total	11/13/2025	0.0018	mg/l							
AP13	Arsenic, total	2/11/2026	0.0018	mg/l							
AP13	Arsenic, total	4/21/2026	ND<0.001	mg/l							
AP13	Arsenic, total	7/27/2026	ND<0.001	mg/l							
AP14	Arsenic, total	5/27/2021	ND<0.025	mg/l							
AP14	Arsenic, total	6/22/2021	ND<0.025	mg/l							
AP14	Arsenic, total	7/16/2021	ND<0.025	mg/l							
AP14	Arsenic, total	11/9/2021	ND<0.025	mg/l							
AP14	Arsenic, total	2/16/2022	ND<0.025	mg/l							
AP14	Arsenic, total	5/31/2022	ND<0.025	mg/l							
AP14	Arsenic, total	8/24/2022	ND<0.025	mg/l							
AP14	Arsenic, total	11/8/2022	ND<0.025	mg/l							
AP14	Arsenic, total	2/16/2023	ND<0.025	mg/l							
AP14	Arsenic, total	4/13/2023	ND<0.025	mg/l							
AP14	Arsenic, total	7/7/2023	0.0018	mg/l							
AP14	Arsenic, total	10/26/2023	0.0036	mg/l							
AP14	Arsenic, total	2/23/2024	0.0039	mg/l							
AP14	Arsenic, total	5/14/2024	0.0019	mg/l							
AP14	Arsenic, total	8/13/2024	0.0016	mg/l							
AP14	Arsenic, total	11/12/2024	0.0022	mg/l							
AP14	Arsenic, total	5/27/2025	0.0017	mg/l							
AP14	Arsenic, total	8/13/2025	0.0011	mg/l							
AP14	Arsenic, total	11/13/2025	0.0017	mg/l							
AP14	Arsenic, total	2/12/2026	0.0029	mg/l							
AP14	Arsenic, total	7/23/2026	0.0014	mg/l							
AP17	Arsenic, total	6/18/2026	0.0062	mg/l							
AP17	Arsenic, total	7/23/2026	0.0043	mg/l							
AP2	Arsenic, total	11/18/2016	ND<0.025	mg/l							
AP2	Arsenic, total	2/16/2017	ND<0.025	mg/l							
AP2	Arsenic, total	5/31/2017	ND<0.025	mg/l							
AP2	Arsenic, total	8/2/2017	ND<0.025	mg/l							
AP2	Arsenic, total	11/9/2017	ND<0.025	mg/l							
AP2	Arsenic, total	5/4/2018	ND<0.025	mg/l							
AP2	Arsenic, total	7/9/2018	ND<0.025	mg/l							
AP2	Arsenic, total	2/13/2019	ND<0.025	mg/l							
AP2	Arsenic, total	8/1/2019	ND<0.025	mg/l							
AP2	Arsenic, total	3/5/2020	ND<0.025	mg/l							
AP2	Arsenic, total	8/5/2020	ND<0.025	mg/l							
AP2	Arsenic, total	1/21/2021	ND<0.025	mg/l							
AP2	Arsenic, total	5/27/2021	ND<0.025	mg/l							
AP2	Arsenic, total	8/24/2021	ND<0.025	mg/l							
AP2	Arsenic, total	11/9/2021	ND<0.025	mg/l							
AP2	Arsenic, total	2/15/2022	ND<0.025	mg/l							
AP2	Arsenic, total	5/31/2022	ND<0.025	mg/l							
AP2	Arsenic, total	8/23/2022	ND<0.025	mg/l							
AP2	Arsenic, total	11/8/2022	ND<0.025	mg/l							
AP2	Arsenic, total	1/27/2023	ND<0.025	mg/l							
AP2	Arsenic, total	4/12/2023	ND<0.025	mg/l							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AP2	Arsenic, total	7/7/2023	0.002	mg/l							
AP2	Arsenic, total	10/26/2023	0.002	mg/l							
AP2	Arsenic, total	2/22/2024	0.0027	mg/l							
AP2	Arsenic, total	5/13/2024	0.002	mg/l							
AP2	Arsenic, total	8/12/2024	0.0031	mg/l							
AP2	Arsenic, total	11/11/2024	0.0016	mg/l							
AP2	Arsenic, total	2/18/2025	0.0022	mg/l							
AP2	Arsenic, total	5/21/2025	0.0013	mg/l							
AP2	Arsenic, total	8/12/2025	0.0014	mg/l							
AP2	Arsenic, total	11/12/2025	0.0014	mg/l							
AP2	Arsenic, total	2/12/2026	ND<0.001	mg/l							
AP2	Arsenic, total	4/21/2026	0.0019	mg/l							
AP2	Arsenic, total	7/24/2026	0.0012	mg/l							
AP3	Arsenic, total	11/18/2016	ND<0.025	mg/l							
AP3	Arsenic, total	2/16/2017	ND<0.025	mg/l							
AP3	Arsenic, total	5/31/2017	ND<0.025	mg/l							
AP3	Arsenic, total	8/2/2017	ND<0.025	mg/l							
AP3	Arsenic, total	11/9/2017	ND<0.025	mg/l							
AP3	Arsenic, total	5/4/2018	ND<0.025	mg/l							
AP3	Arsenic, total	7/9/2018	ND<0.025	mg/l							
AP3	Arsenic, total	2/13/2019	ND<0.025	mg/l							
AP3	Arsenic, total	8/1/2019	ND<0.025	mg/l							
AP3	Arsenic, total	3/5/2020	ND<0.025	mg/l							
AP3	Arsenic, total	8/5/2020	ND<0.025	mg/l							
AP3	Arsenic, total	1/21/2021	ND<0.025	mg/l							
AP3	Arsenic, total	5/27/2021	ND<0.025	mg/l							
AP3	Arsenic, total	8/24/2021	ND<0.025	mg/l							
AP3	Arsenic, total	11/9/2021	ND<0.025	mg/l							
AP3	Arsenic, total	2/15/2022	ND<0.025	mg/l							
AP3	Arsenic, total	5/31/2022	ND<0.025	mg/l							
AP3	Arsenic, total	8/23/2022	ND<0.025	mg/l							
AP3	Arsenic, total	11/8/2022	ND<0.025	mg/l							
AP3	Arsenic, total	1/27/2023	ND<0.025	mg/l							
AP3	Arsenic, total	4/12/2023	ND<0.025	mg/l							
AP3	Arsenic, total	7/7/2023	0.0109	mg/l							
AP3	Arsenic, total	10/26/2023	0.0182	mg/l							
AP3	Arsenic, total	2/22/2024	0.0101	mg/l							
AP3	Arsenic, total	5/13/2024	0.0021	mg/l							
AP3	Arsenic, total	8/29/2024	0.008	mg/l							
AP3	Arsenic, total	11/11/2024	0.0182	mg/l							
AP3	Arsenic, total	2/19/2025	0.0137	mg/l							
AP3	Arsenic, total	5/21/2025	0.0103	mg/l							
AP3	Arsenic, total	8/12/2025	0.016	mg/l							
AP3	Arsenic, total	11/12/2025	0.0135	mg/l							
AP3	Arsenic, total	2/12/2026	0.0175	mg/l							
AP3	Arsenic, total	4/21/2026	0.022	mg/l							
AP3	Arsenic, total	7/24/2026	0.0136	mg/l							
AP4	Arsenic, total	11/18/2016	ND<0.025	mg/l							
AP4	Arsenic, total	2/16/2017	ND<0.025	mg/l							
AP4	Arsenic, total	5/5/2017	ND<0.025	mg/l							
AP4	Arsenic, total	8/2/2017	ND<0.025	mg/l							
AP4	Arsenic, total	11/9/2017	0.0266	mg/l							
AP4	Arsenic, total	5/4/2018	ND<0.025	mg/l							
AP4	Arsenic, total	7/9/2018	ND<0.025	mg/l							
AP4	Arsenic, total	2/13/2019	ND<0.025	mg/l							
AP4	Arsenic, total	8/1/2019	ND<0.025	mg/l							
AP4	Arsenic, total	3/5/2020	0.0264	mg/l							
AP4	Arsenic, total	8/6/2020	ND<0.025	mg/l							
AP4	Arsenic, total	1/21/2021	0.0359	mg/l							
AP4	Arsenic, total	5/27/2021	ND<0.025	mg/l							
AP4	Arsenic, total	8/24/2021	ND<0.025	mg/l							
AP4	Arsenic, total	11/9/2021	0.0305	mg/l							
AP4	Arsenic, total	2/16/2022	0.0306	mg/l							
AP4	Arsenic, total	5/31/2022	ND<0.025	mg/l							
AP4	Arsenic, total	8/23/2022	0.0309	mg/l							
AP4	Arsenic, total	11/8/2022	0.027	mg/l							
AP4	Arsenic, total	1/26/2023	ND<0.025	mg/l							
AP4	Arsenic, total	4/13/2023	0.025	mg/l							
AP4	Arsenic, total	7/7/2023	0.0239	mg/l							
AP4	Arsenic, total	10/26/2023	0.0225	mg/l							
AP4	Arsenic, total	2/23/2024	0.0375	mg/l							
AP4	Arsenic, total	5/13/2024	0.0229	mg/l							
AP4	Arsenic, total	8/12/2024	0.0207	mg/l							
AP4	Arsenic, total	11/11/2024	0.0246	mg/l							
AP4	Arsenic, total	2/18/2025	0.021	mg/l							
AP4	Arsenic, total	5/28/2025	0.0223	mg/l							
AP4	Arsenic, total	8/12/2025	0.0248	mg/l							
AP4	Arsenic, total	11/13/2025	0.0219	mg/l							
AP4	Arsenic, total	2/11/2026	0.0026	mg/l							
AP4	Arsenic, total	4/21/2026	ND<0.001	mg/l							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AP4	Arsenic, total	7/24/2026	0.022	mg/l							
AP5	Arsenic, total	11/18/2016	ND<0.025	mg/l							
AP5	Arsenic, total	2/16/2017	ND<0.025	mg/l							
AP5	Arsenic, total	5/5/2017	ND<0.025	mg/l							
AP5	Arsenic, total	8/3/2017	ND<0.025	mg/l							
AP5	Arsenic, total	11/9/2017	ND<0.025	mg/l							
AP5	Arsenic, total	5/4/2018	ND<0.025	mg/l							
AP5	Arsenic, total	7/9/2018	ND<0.025	mg/l							
AP5	Arsenic, total	2/13/2019	ND<0.025	mg/l							
AP5	Arsenic, total	8/1/2019	ND<0.025	mg/l							
AP5	Arsenic, total	3/5/2020	ND<0.025	mg/l							
AP5	Arsenic, total	8/6/2020	0.0937	mg/l							
AP5	Arsenic, total	1/21/2021	ND<0.025	mg/l							
AP5	Arsenic, total	5/27/2021	ND<0.025	mg/l							
AP5	Arsenic, total	8/24/2021	ND<0.025	mg/l							
AP5	Arsenic, total	11/10/2021	ND<0.025	mg/l							
AP5	Arsenic, total	2/16/2022	ND<0.025	mg/l							
AP5	Arsenic, total	5/31/2022	ND<0.025	mg/l							
AP5	Arsenic, total	8/23/2022	ND<0.025	mg/l							
AP5	Arsenic, total	11/8/2022	ND<0.025	mg/l							
AP5	Arsenic, total	1/27/2023	ND<0.025	mg/l							
AP5	Arsenic, total	4/13/2023	ND<0.025	mg/l							
AP5	Arsenic, total	7/7/2023	ND<0.001	mg/l							
AP5	Arsenic, total	10/26/2023	ND<0.001	mg/l							
AP5	Arsenic, total	2/22/2024	ND<0.001	mg/l							
AP5	Arsenic, total	5/14/2024	ND<0.001	mg/l							
AP5	Arsenic, total	8/12/2024	ND<0.001	mg/l							
AP5	Arsenic, total	11/11/2024	ND<0.001	mg/l							
AP5	Arsenic, total	2/18/2025	ND<0.001	mg/l							
AP5	Arsenic, total	5/21/2025	ND<0.001	mg/l							
AP5	Arsenic, total	8/12/2025	ND<0.001	mg/l							
AP5	Arsenic, total	11/13/2025	ND<0.001	mg/l							
AP5	Arsenic, total	2/11/2026	ND<0.001	mg/l							
AP5	Arsenic, total	4/21/2026	ND<0.001	mg/l							
AP5	Arsenic, total	7/24/2026	ND<0.001	mg/l							
AP6	Arsenic, total	3/5/2020	0.059	mg/l							
AP6	Arsenic, total	8/5/2020	ND<0.025	mg/l							
AP6	Arsenic, total	1/21/2021	ND<0.025	mg/l							
AP6	Arsenic, total	5/26/2021	ND<0.025	mg/l							
AP6	Arsenic, total	8/24/2021	ND<0.025	mg/l							
AP6	Arsenic, total	11/10/2021	ND<0.025	mg/l							
AP6	Arsenic, total	2/15/2022	ND<0.025	mg/l							
AP6	Arsenic, total	5/31/2022	ND<0.025	mg/l							
AP6	Arsenic, total	8/23/2022	ND<0.025	mg/l							
AP6	Arsenic, total	11/8/2022	ND<0.025	mg/l							
AP6	Arsenic, total	1/27/2023	ND<0.025	mg/l							
AP6	Arsenic, total	4/12/2023	ND<0.025	mg/l							
AP6	Arsenic, total	7/6/2023	0.004	mg/l							
AP6	Arsenic, total	10/26/2023	0.0183	mg/l							
AP6	Arsenic, total	2/22/2024	0.0068	mg/l							
AP6	Arsenic, total	5/10/2024	0.0121	mg/l							
AP6	Arsenic, total	8/12/2024	0.0074	mg/l							
AP6	Arsenic, total	11/11/2024	0.0108	mg/l							
AP6	Arsenic, total	2/18/2025	0.012	mg/l							
AP6	Arsenic, total	5/21/2025	0.0037	mg/l							
AP6	Arsenic, total	8/12/2025	0.0068	mg/l							
AP6	Arsenic, total	11/13/2025	0.0112	mg/l							
AP6	Arsenic, total	2/12/2026	0.0114	mg/l							
AP6	Arsenic, total	4/21/2026	ND<0.001	mg/l							
AP6	Arsenic, total	7/27/2026	0.0104	mg/l							
AP7	Arsenic, total	3/5/2020	ND<0.025	mg/l							
AP7	Arsenic, total	8/5/2020	0.0429	mg/l							
AP7	Arsenic, total	1/21/2021	0.0415	mg/l							
AP7	Arsenic, total	5/26/2021	ND<0.025	mg/l							
AP7	Arsenic, total	8/24/2021	ND<0.025	mg/l							
AP7	Arsenic, total	11/10/2021	0.0306	mg/l							
AP7	Arsenic, total	2/15/2022	ND<0.025	mg/l							
AP7	Arsenic, total	6/1/2022	0.0468	mg/l							
AP7	Arsenic, total	8/25/2022	0.0376	mg/l							
AP7	Arsenic, total	11/9/2022	ND<0.025	mg/l							
AP7	Arsenic, total	2/16/2023	ND<0.025	mg/l							
AP7	Arsenic, total	4/17/2023	0.0462	mg/l							
AP7	Arsenic, total	7/7/2023	0.0412	mg/l							
AP7	Arsenic, total	10/26/2023	0.075	mg/l							
AP7	Arsenic, total	2/26/2024	0.0555	mg/l							
AP7	Arsenic, total	5/14/2024	0.0395	mg/l							
AP7	Arsenic, total	8/12/2024	0.0438	mg/l							
AP7	Arsenic, total	11/13/2024	0.09469999	mg/l							
AP7	Arsenic, total	2/20/2025	0.0248	mg/l							
AP7	Arsenic, total	5/27/2025	0.0289	mg/l							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AP7	Arsenic, total	8/13/2025	0.0289	mg/l							
AP7	Arsenic, total	11/13/2025	0.0182	mg/l							
AP7	Arsenic, total	2/11/2026	0.0325	mg/l							
AP7	Arsenic, total	4/21/2026	0.0222	mg/l							
AP7	Arsenic, total	7/27/2026	0.0521	mg/l							
AP8	Arsenic, total	5/26/2021	ND<0.025	mg/l							
AP8	Arsenic, total	6/22/2021	0.0363	mg/l							
AP8	Arsenic, total	7/16/2021	0.0317	mg/l							
AP8	Arsenic, total	11/10/2021	0.0405	mg/l							
AP8	Arsenic, total	2/15/2022	0.0319	mg/l							
AP8	Arsenic, total	5/31/2022	0.0352	mg/l							
AP8	Arsenic, total	8/23/2022	0.0377	mg/l							
AP8	Arsenic, total	11/8/2022	0.034	mg/l							
AP8	Arsenic, total	1/27/2023	0.0336	mg/l							
AP8	Arsenic, total	4/12/2023	0.0348	mg/l							
AP8	Arsenic, total	7/7/2023	0.0513	mg/l							
AP8	Arsenic, total	10/26/2023	0.0395	mg/l							
AP8	Arsenic, total	2/21/2024	0.0426	mg/l							
AP8	Arsenic, total	5/10/2024	0.0461	mg/l							
AP8	Arsenic, total	8/13/2024	0.0414	mg/l							
AP8	Arsenic, total	11/13/2024	0.0386	mg/l							
AP8	Arsenic, total	2/19/2025	0.0487	mg/l							
AP8	Arsenic, total	5/21/2025	0.0446	mg/l							
AP8	Arsenic, total	8/13/2025	0.0389	mg/l							
AP8	Arsenic, total	11/13/2025	0.0372	mg/l							
AP8	Arsenic, total	2/12/2026	0.0394	mg/l							
AP8	Arsenic, total	4/21/2026	0.0366	mg/l							
AP8	Arsenic, total	7/22/2026	0.0462	mg/l							
AP9	Arsenic, total	8/24/2021	ND<0.025	mg/l							
AP9	Arsenic, total	2/15/2022	ND<0.025	mg/l							
AP9	Arsenic, total	6/1/2022	ND<0.025	mg/l							
AP9	Arsenic, total	8/25/2022	ND<0.025	mg/l							
AP9	Arsenic, total	11/9/2022	ND<0.025	mg/l							
AP9	Arsenic, total	2/16/2023	ND<0.025	mg/l							
AP9	Arsenic, total	4/17/2023	ND<0.025	mg/l							
AP9	Arsenic, total	7/7/2023	0.0114	mg/l							
AP9	Arsenic, total	10/26/2023	0.0062	mg/l							
AP9	Arsenic, total	2/26/2024	0.0037	mg/l							
AP9	Arsenic, total	5/14/2024	0.0024	mg/l							
AP9	Arsenic, total	8/12/2024	0.0028	mg/l							
AP9	Arsenic, total	11/13/2024	0.0019	mg/l							
AP9	Arsenic, total	2/20/2025	0.0023	mg/l							
AP9	Arsenic, total	5/27/2025	0.0014	mg/l							
AP9	Arsenic, total	8/13/2025	0.0013	mg/l							
AP9	Arsenic, total	11/13/2025	0.0016	mg/l							
AP9	Arsenic, total	2/11/2026	ND<0.001	mg/l							
AP9	Arsenic, total	4/21/2026	0.0012	mg/l							
AP9	Arsenic, total	7/27/2026	ND<0.001	mg/l							
AW1	Arsenic, total	5/5/2017	0.13	mg/l							
AW1	Arsenic, total	5/4/2018	0.155	mg/l							
AW1	Arsenic, total	5/20/2019	0.0386	mg/l							
AW1	Arsenic, total	11/1/2019	0.178	mg/l							
AW1	Arsenic, total	5/6/2020	0.147	mg/l							
AW1	Arsenic, total	5/28/2021	0.163	mg/l							
AW1	Arsenic, total	6/2/2022	0.148	mg/l							
AW1	Arsenic, total	8/24/2022	0.192	mg/l							
AW1	Arsenic, total	4/11/2023	0.152	mg/l							
AW1	Arsenic, total	10/25/2023	0.208	mg/l							
AW1	Arsenic, total	2/1/2024	0.16	mg/l							
AW1	Arsenic, total	5/10/2024	0.153	mg/l							
AW1	Arsenic, total	8/13/2024	0.129	mg/l							
AW1	Arsenic, total	11/11/2024	0.168	mg/l							
AW1	Arsenic, total	2/20/2025	0.146	mg/l							
AW1	Arsenic, total	5/22/2025	0.0016	mg/l							
AW1	Arsenic, total	8/12/2025	0.0098	mg/l							
AW1	Arsenic, total	11/13/2025	0.13	mg/l							
AW1	Arsenic, total	2/11/2026	0.152	mg/l							
AW1	Arsenic, total	4/23/2026	0.0202	mg/l							
AW1	Arsenic, total	6/18/2026	0.0357	mg/l							
AW1	Arsenic, total	7/22/2026	0.08130001	mg/l							
AW2	Arsenic, total	5/5/2017	0.0254	mg/l							
AW2	Arsenic, total	5/4/2018	ND<0.025	mg/l							
AW2	Arsenic, total	5/20/2019	0.0284	mg/l							
AW2	Arsenic, total	11/1/2019	0.0286	mg/l							
AW2	Arsenic, total	5/6/2020	0.0274	mg/l							
AW2	Arsenic, total	5/28/2021	0.0202	mg/l							
AW2	Arsenic, total	6/2/2022	0.0226	mg/l							
AW2	Arsenic, total	4/11/2023	0.019	mg/l							
AW2	Arsenic, total	10/25/2023	0.0266	mg/l							
AW2	Arsenic, total	2/21/2024	0.0235	mg/l							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AW2	Arsenic, total	5/13/2024	0.0175	mg/l							
AW2	Arsenic, total	8/12/2024	0.018	mg/l							
AW2	Arsenic, total	11/13/2024	0.013	mg/l							
AW2	Arsenic, total	2/20/2025	0.0017	mg/l							
AW2	Arsenic, total	3/18/2025	0.0012	mg/l							
AW2	Arsenic, total	4/24/2025	0.0014	mg/l							
AW2	Arsenic, total	5/22/2025	0.0166	mg/l							
AW2	Arsenic, total	8/11/2025	0.011	mg/l							
AW2	Arsenic, total	2/11/2026	0.0099	mg/l							
AW2	Arsenic, total	4/22/2026	0.0021	mg/l							
AW2	Arsenic, total	6/18/2026	0.0144	mg/l							
AW2	Arsenic, total	7/23/2026	0.0098	mg/l							
AW4	Arsenic, total	6/17/2026	0.0143	mg/l							
AW4	Arsenic, total	7/27/2026	0.0084	mg/l							
AW5	Arsenic, total	6/18/2026	0.0086	mg/l							
AW5	Arsenic, total	7/23/2026	0.0096	mg/l							
AW6	Arsenic, total	6/18/2026	0.0301	mg/l							
AW6	Arsenic, total	7/22/2026	0.025	mg/l							
G110	Arsenic, total	5/5/2017	ND<0.025	mg/l							
G110	Arsenic, total	5/4/2018	ND<0.025	mg/l							
G110	Arsenic, total	5/20/2019	ND<0.025	mg/l							
G110	Arsenic, total	11/1/2019	ND<0.025	mg/l							
G110	Arsenic, total	5/6/2020	0.0017	mg/l							
G110	Arsenic, total	5/28/2021	0.0017	mg/l							
G110	Arsenic, total	6/2/2022	0.0018	mg/l							
G110	Arsenic, total	4/12/2023	0.0049	mg/l							
G110	Arsenic, total	10/26/2023	0.0053	mg/l							
G110	Arsenic, total	2/1/2024	0.0057	mg/l							
G110	Arsenic, total	5/8/2024	0.0058	mg/l							
G110	Arsenic, total	8/13/2024	0.0046	mg/l							
G110	Arsenic, total	11/13/2024	0.0058	mg/l							
G110	Arsenic, total	2/19/2025	0.0044	mg/l							
G110	Arsenic, total	5/21/2025	0.0047	mg/l							
G110	Arsenic, total	4/23/2026	0.0062	mg/l							
G112	Arsenic, total	5/5/2017	ND<0.025	mg/l							
G112	Arsenic, total	5/4/2018	ND<0.025	mg/l							
G112	Arsenic, total	5/20/2019	ND<0.025	mg/l							
G112	Arsenic, total	11/1/2019	ND<0.025	mg/l							
G112	Arsenic, total	5/6/2020	0.0094	mg/l							
G112	Arsenic, total	5/28/2021	0.0057	mg/l							
G112	Arsenic, total	6/2/2022	0.0015	mg/l							
G112	Arsenic, total	4/10/2023	ND<0.001	mg/l							
G112	Arsenic, total	10/25/2023	0.0021	mg/l							
G112	Arsenic, total	2/22/2024	ND<0.001	mg/l							
G112	Arsenic, total	5/9/2024	ND<0.001	mg/l							
G112	Arsenic, total	8/13/2024	ND<0.001	mg/l							
G112	Arsenic, total	11/11/2024	ND<0.001	mg/l							
G112	Arsenic, total	2/20/2025	0.001	mg/l							
G112	Arsenic, total	3/18/2025	0.0012	mg/l							
G112	Arsenic, total	5/21/2025	ND<0.001	mg/l							
G112	Arsenic, total	4/23/2026	ND<0.001	mg/l							
G120	Arsenic, total	5/5/2017	ND<0.025	mg/l							
G120	Arsenic, total	5/4/2018	ND<0.025	mg/l							
G120	Arsenic, total	5/20/2019	ND<0.025	mg/l							
G120	Arsenic, total	11/1/2019	ND<0.025	mg/l							
G120	Arsenic, total	5/6/2020	0.0118	mg/l							
G120	Arsenic, total	5/28/2021	0.0113	mg/l							
G120	Arsenic, total	6/2/2022	0.012	mg/l							
G120	Arsenic, total	4/10/2023	0.0138	mg/l							
G120	Arsenic, total	10/25/2023	0.0162	mg/l							
G120	Arsenic, total	2/2/2024	0.0116	mg/l							
G120	Arsenic, total	5/9/2024	0.0121	mg/l							
G120	Arsenic, total	8/13/2024	0.0104	mg/l							
G120	Arsenic, total	11/13/2024	0.0119	mg/l							
G120	Arsenic, total	2/21/2025	0.0113	mg/l							
G120	Arsenic, total	3/18/2025	0.0121	mg/l							
G120	Arsenic, total	5/21/2025	0.0114	mg/l							
G120	Arsenic, total	8/12/2025	0.0115	mg/l							
G120	Arsenic, total	11/13/2025	0.0128	mg/l							
G120	Arsenic, total	2/12/2026	0.0105	mg/l							
G120	Arsenic, total	4/22/2026	0.0106	mg/l							
G120	Arsenic, total	6/17/2026	0.0169	mg/l							
G120	Arsenic, total	7/22/2026	ND<0.001	mg/l							
G121	Arsenic, total	5/5/2017	ND<0.025	mg/l							
G121	Arsenic, total	5/4/2018	ND<0.025	mg/l							
G121	Arsenic, total	5/20/2019	ND<0.025	mg/l							
G121	Arsenic, total	11/1/2019	ND<0.025	mg/l							
G121	Arsenic, total	5/6/2020	0.0136	mg/l							
G121	Arsenic, total	5/27/2021	0.0149	mg/l							
G121	Arsenic, total	6/2/2022	0.0163	mg/l							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data

WellName	Constituent	SampleDate	Result	Units	Flags
G121	Arsenic, total	4/10/2023	0.0155	mg/l	
G121	Arsenic, total	10/25/2023	0.0221	mg/l	
G121	Arsenic, total	2/2/2024	0.0173	mg/l	
G121	Arsenic, total	5/9/2024	0.0146	mg/l	
G121	Arsenic, total	8/13/2024	0.0084	mg/l	
G121	Arsenic, total	11/11/2024	0.016	mg/l	
G121	Arsenic, total	2/20/2025	0.0169	mg/l	
G121	Arsenic, total	3/18/2025	ND<0.001	mg/l	
G121	Arsenic, total	4/24/2025	0.0145	mg/l	
G121	Arsenic, total	5/22/2025	0.018	mg/l	
G121	Arsenic, total	8/11/2025	0.0044	mg/l	
G121	Arsenic, total	2/11/2026	0.0075	mg/l	
G121	Arsenic, total	4/22/2026	0.0114	mg/l	
G121	Arsenic, total	6/18/2026	0.0141	mg/l	
G121	Arsenic, total	7/23/2026	0.0177	mg/l	
G122	Arsenic, total	5/5/2017	ND<0.025	mg/l	
G122	Arsenic, total	5/4/2018	ND<0.025	mg/l	
G122	Arsenic, total	5/20/2019	ND<0.025	mg/l	
G122	Arsenic, total	11/1/2019	ND<0.025	mg/l	
G122	Arsenic, total	5/6/2020	0.0034	mg/l	
G122	Arsenic, total	5/28/2021	0.0032	mg/l	
G122	Arsenic, total	6/2/2022	0.0041	mg/l	
G122	Arsenic, total	4/10/2023	0.0034	mg/l	
G122	Arsenic, total	10/25/2023	0.0046	mg/l	
G122	Arsenic, total	2/2/2024	0.0028	mg/l	
G122	Arsenic, total	5/9/2024	0.0035	mg/l	
G122	Arsenic, total	8/13/2024	0.0019	mg/l	
G122	Arsenic, total	11/11/2024	0.0029	mg/l	
G122	Arsenic, total	2/20/2025	0.001	mg/l	
G122	Arsenic, total	3/18/2025	0.0016	mg/l	
G122	Arsenic, total	4/24/2025	0.0032	mg/l	
G122	Arsenic, total	5/22/2025	0.0027	mg/l	
G122	Arsenic, total	8/11/2025	0.0029	mg/l	
G122	Arsenic, total	2/11/2026	0.0025	mg/l	
G122	Arsenic, total	4/22/2026	0.0016	mg/l	
G122	Arsenic, total	6/18/2026	0.0019	mg/l	
G122	Arsenic, total	7/24/2026	0.0031	mg/l	
GP1	Arsenic, total	8/24/2021	ND<0.025	mg/l	
GP3	Arsenic, total	8/24/2021	ND<0.025	mg/l	
GP7	Arsenic, total	8/12/2025	0.0072	mg/l	
P03D	Arsenic, total	8/11/2025	0.0017	mg/l	
P04D	Arsenic, total	5/28/2021	ND<0.025	mg/l	
P04D	Arsenic, total	8/11/2025	0.0027	mg/l	
P06D	Arsenic, total	5/28/2021	0.0269	mg/l	
P06D	Arsenic, total	3/18/2025	0.0153	mg/l	
P07D	Arsenic, total	5/28/2021	0.047	mg/l	
P07D	Arsenic, total	8/12/2024	0.0394	mg/l	
P07D	Arsenic, total	11/13/2024	0.036	mg/l	
P07D	Arsenic, total	2/20/2025	0.0276	mg/l	
P07D	Arsenic, total	3/18/2025	0.0292	mg/l	
P07D	Arsenic, total	4/24/2025	0.0262	mg/l	
P07D	Arsenic, total	5/27/2025	0.0324	mg/l	
P07D	Arsenic, total	8/11/2025	0.0255	mg/l	
P07D	Arsenic, total	2/12/2026	0.0294	mg/l	
P07D	Arsenic, total	6/17/2026	0.0272	mg/l	
P07D	Arsenic, total	7/23/2026	0.0305	mg/l	
P09D	Arsenic, total	5/28/2021	ND<0.025	mg/l	
P104	Arsenic, total	5/28/2021	ND<0.025	mg/l	
P104	Arsenic, total	8/11/2025	0.0055	mg/l	
R101	Arsenic, total	5/5/2017	ND<0.025	mg/l	
R101	Arsenic, total	5/4/2018	ND<0.025	mg/l	
R101	Arsenic, total	5/20/2019	ND<0.025	mg/l	
R101	Arsenic, total	11/1/2019	ND<0.025	mg/l	
R101	Arsenic, total	5/6/2020	ND<0.001	mg/l	
R101	Arsenic, total	5/28/2021	ND<0.001	mg/l	
R101	Arsenic, total	6/2/2022	ND<0.001	mg/l	
R101	Arsenic, total	4/11/2023	ND<0.001	mg/l	
R101	Arsenic, total	10/25/2023	ND<0.001	mg/l	
R101	Arsenic, total	2/23/2024	ND<0.001	mg/l	
R101	Arsenic, total	5/13/2024	ND<0.001	mg/l	
R101	Arsenic, total	8/12/2024	ND<0.001	mg/l	
R101	Arsenic, total	11/11/2024	ND<0.001	mg/l	
R101	Arsenic, total	2/21/2025	ND<0.001	mg/l	
R101	Arsenic, total	3/18/2025	ND<0.001	mg/l	
R101	Arsenic, total	4/24/2025	ND<0.001	mg/l	
R101	Arsenic, total	5/27/2025	0.0021	mg/l	
R101	Arsenic, total	8/11/2025	ND<0.001	mg/l	
R101	Arsenic, total	2/11/2026	ND<0.001	mg/l	
R101	Arsenic, total	4/22/2026	ND<0.001	mg/l	
R101	Arsenic, total	6/18/2026	0.0014	mg/l	

Well Coordinates

WellName	XCoord	YCoord	Aquifer	CoordUnits

GIS ShapeFiles

Filenames (*.shp)

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
R101	Arsenic, total	7/22/2026	0.0018	mg/l							
R103	Arsenic, total	5/28/2021	ND<0.025	mg/l							
R103	Arsenic, total	8/11/2025	0.0018	mg/l							
R111	Arsenic, total	5/5/2017	ND<0.025	mg/l							
R111	Arsenic, total	5/4/2018	0.0302	mg/l							
R111	Arsenic, total	5/20/2019	ND<0.025	mg/l							
R111	Arsenic, total	11/1/2019	ND<0.025	mg/l							
R111	Arsenic, total	5/6/2020	0.0465	mg/l							
R111	Arsenic, total	5/28/2021	0.0231	mg/l							
R111	Arsenic, total	6/2/2022	0.0111	mg/l							
R111	Arsenic, total	8/24/2022	0.0031	mg/l							
R111	Arsenic, total	4/10/2023	0.021	mg/l							
R111	Arsenic, total	7/6/2023	0.0212	mg/l							
R111	Arsenic, total	10/26/2023	0.0019	mg/l							
R111	Arsenic, total	2/2/2024	0.0015	mg/l							
R111	Arsenic, total	5/8/2024	0.0175	mg/l							
R111	Arsenic, total	8/12/2024	0.0166	mg/l							
R111	Arsenic, total	11/11/2024	0.0185	mg/l							
R111	Arsenic, total	2/20/2025	0.0156	mg/l							
R111	Arsenic, total	3/18/2025	0.0199	mg/l							
R111	Arsenic, total	5/21/2025	0.0215	mg/l							
R111	Arsenic, total	4/22/2026	0.0147	mg/l							
RW3	Arsenic, total	11/18/2016	0.224	mg/l							
RW3	Arsenic, total	2/16/2017	0.21	mg/l							
RW3	Arsenic, total	5/31/2017	0.0856	mg/l							
RW3	Arsenic, total	8/2/2017	0.157	mg/l							
RW3	Arsenic, total	11/9/2017	0.172	mg/l							
RW3	Arsenic, total	5/4/2018	0.0826	mg/l							
RW3	Arsenic, total	6/21/2018	0.0935	mg/l							
RW3	Arsenic, total	7/9/2018	0.136	mg/l							
RW3	Arsenic, total	2/13/2019	0.124	mg/l							
RW3	Arsenic, total	5/20/2019	ND<0.1	mg/l							
RW3	Arsenic, total	8/1/2019	ND<0.025	mg/l							
RW3	Arsenic, total	11/1/2019	0.168	mg/l							
RW3	Arsenic, total	2/28/2020	0.497	mg/l							
RW3	Arsenic, total	5/6/2020	0.105	mg/l							
RW3	Arsenic, total	8/5/2020	0.253	mg/l							
RW3	Arsenic, total	1/21/2021	0.116	mg/l							
RW3	Arsenic, total	5/26/2021	0.119	mg/l							
RW3	Arsenic, total	8/25/2021	0.105	mg/l							
RW3	Arsenic, total	11/10/2021	0.158	mg/l							
RW3	Arsenic, total	2/16/2022	0.178	mg/l							
RW3	Arsenic, total	6/1/2022	0.109	mg/l							
RW3	Arsenic, total	8/23/2022	0.11	mg/l							
RW3	Arsenic, total	11/8/2022	0.142	mg/l							
RW3	Arsenic, total	1/26/2023	0.169	mg/l							
RW3	Arsenic, total	4/11/2023	0.185	mg/l							
RW3	Arsenic, total	7/6/2023	0.0831	mg/l							
RW3	Arsenic, total	10/25/2023	0.74	mg/l							
RW3	Arsenic, total	2/21/2024	0.306	mg/l							
RW3	Arsenic, total	5/9/2024	0.188	mg/l							
RW3	Arsenic, total	8/12/2024	0.107	mg/l							
RW3	Arsenic, total	11/11/2024	0.214	mg/l							
RW3	Arsenic, total	2/18/2025	0.0961	mg/l							
RW3	Arsenic, total	5/21/2025	0.0808	mg/l							
RW3	Arsenic, total	8/12/2025	0.103	mg/l							
RW3	Arsenic, total	11/12/2025	0.108	mg/l							
RW3	Arsenic, total	2/12/2026	0.0654	mg/l							
RW3	Arsenic, total	4/22/2026	0.0874	mg/l							
RW3	Arsenic, total	7/24/2026	0.119	mg/l							
T1	Arsenic, total	5/9/2024	ND<0.001	mg/l							
T1	Arsenic, total	8/12/2024	0.0048	mg/l							
T1	Arsenic, total	11/12/2024	0.0019	mg/l							
T1	Arsenic, total	2/20/2025	0.0023	mg/l							
T1	Arsenic, total	5/22/2025	ND<0.001	mg/l							
T1	Arsenic, total	8/12/2025	0.0016	mg/l							
T1	Arsenic, total	11/13/2025	ND<0.001	mg/l							
T1	Arsenic, total	2/11/2026	ND<0.001	mg/l							
T1	Arsenic, total	4/21/2026	ND<0.001	mg/l							
T1	Arsenic, total	7/27/2026	ND<0.001	mg/l							
T2	Arsenic, total	5/9/2024	0.0023	mg/l							
T2	Arsenic, total	8/12/2024	0.0053	mg/l							
T2	Arsenic, total	11/13/2024	0.006	mg/l							
T2	Arsenic, total	2/20/2025	0.0073	mg/l							
T2	Arsenic, total	5/22/2025	0.0056	mg/l							
T2	Arsenic, total	8/12/2025	0.0068	mg/l							
T2	Arsenic, total	11/13/2025	0.0073	mg/l							
T2	Arsenic, total	2/11/2026	0.0055	mg/l							
T2	Arsenic, total	4/21/2026	0.0043	mg/l							
T2	Arsenic, total	7/27/2026	0.004	mg/l							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
T4	Arsenic, total	5/14/2024	0.0013	mg/l							
T4	Arsenic, total	8/13/2024	0.0055	mg/l							
T4	Arsenic, total	11/13/2024	0.0055	mg/l							
T4	Arsenic, total	2/19/2025	0.0049	mg/l							
T4	Arsenic, total	5/27/2025	0.0039	mg/l							
T4	Arsenic, total	8/13/2025	0.0038	mg/l							
T4	Arsenic, total	11/13/2025	0.003	mg/l							
T4	Arsenic, total	2/11/2026	0.0026	mg/l							
T4	Arsenic, total	4/21/2026	0.0049	mg/l							
T4	Arsenic, total	7/27/2026	0.0039	mg/l							
T5	Arsenic, total	5/14/2024	ND<0.001	mg/l							
T5	Arsenic, total	8/13/2024	ND<0.001	mg/l							
T5	Arsenic, total	11/13/2024	0.0016	mg/l							
T5	Arsenic, total	2/19/2025	ND<0.001	mg/l							
T5	Arsenic, total	5/27/2025	ND<0.001	mg/l							
T5	Arsenic, total	8/13/2025	0.0014	mg/l							
T5	Arsenic, total	11/13/2025	0.0022	mg/l							
T5	Arsenic, total	2/11/2026	0.0033	mg/l							
T5	Arsenic, total	4/21/2026	ND<0.001	mg/l							
T5	Arsenic, total	7/27/2026	ND<0.001	mg/l							
T6	Arsenic, total	5/14/2024	0.0076	mg/l							
T6	Arsenic, total	8/13/2024	0.0108	mg/l							
T6	Arsenic, total	11/13/2024	0.0158	mg/l							
T6	Arsenic, total	2/19/2025	0.0037	mg/l							
T6	Arsenic, total	5/27/2025	0.0195	mg/l							
T6	Arsenic, total	8/13/2025	0.0086	mg/l							
T6	Arsenic, total	11/13/2025	0.0145	mg/l							
T6	Arsenic, total	2/11/2026	0.0114	mg/l							
T6	Arsenic, total	4/21/2026	ND<0.001	mg/l							
T6	Arsenic, total	7/27/2026	0.0115	mg/l							
AP1	GW	11/18/2016	524.48	feet							
AP1	GW	2/16/2017	524.65	feet							
AP1	GW	8/3/2017	524.47	feet							
AP1	GW	11/9/2017	524.4	feet							
AP1	GW	1/31/2018	524.47	feet							
AP1	GW	5/4/2018	525.36	feet							
AP1	GW	8/1/2019	526.19	feet							
AP1	GW	11/1/2019	524.43	feet							
AP1	GW	3/5/2020	528.66	feet							
AP1	GW	8/5/2020	524.52	feet							
AP1	GW	11/23/2020	535.37	feet							
AP1	GW	1/21/2021	524.4	feet							
AP1	GW	5/27/2021	527.26	feet							
AP1	GW	8/25/2021	524.52	feet							
AP1	GW	11/10/2021	526.38	feet							
AP1	GW	2/15/2022	526.05	feet							
AP1	GW	5/31/2022	525.69	feet							
AP1	GW	8/23/2022	525.04	feet							
AP1	GW	11/8/2022	525.27	feet							
AP1	GW	1/27/2023	525.48	feet							
AP1	GW	4/12/2023	525.45	feet							
AP1	GW	7/7/2023	525.18	feet							
AP1	GW	10/26/2023	523.95	feet							
AP1	GW	2/21/2024	526.89	feet							
AP1	GW	5/13/2024	526.49	feet							
AP1	GW	8/12/2024	524.03	feet							
AP1	GW	11/11/2024	524.98	feet							
AP1	GW	2/18/2025	524.58	feet							
AP1	GW	5/28/2025	525.58	feet							
AP1	GW	8/12/2025	524.15	feet							
AP1	GW	11/13/2025	523.48	feet							
AP1	GW	2/12/2026	524.32	feet							
AP1	GW	4/22/2026	525.62	feet							
AP1	GW	7/27/2026	524.78	feet							
AP10	GW	5/26/2021	534.86	feet							
AP10	GW	6/22/2021	532.98	feet							
AP10	GW	7/16/2021	536.63	feet							
AP10	GW	11/9/2021	534.46	feet							
AP10	GW	5/31/2022	533.88	feet							
AP10	GW	8/23/2022	533.85	feet							
AP10	GW	11/8/2022	532.94	feet							
AP10	GW	2/16/2023	534.82	feet							
AP10	GW	4/12/2023	534.45	feet							
AP10	GW	7/7/2023	532.54	feet							
AP10	GW	10/26/2023	530.93	feet							
AP10	GW	2/21/2024	534.68	feet							
AP10	GW	5/13/2024	534.96	feet							
AP10	GW	8/13/2024	532.11	feet							
AP10	GW	11/12/2024	531.91	feet							
AP10	GW	2/19/2025	533.46	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AP10	GW	5/21/2025	533.58	feet							
AP10	GW	8/13/2025	532.61	feet							
AP10	GW	11/12/2025	529.77	feet							
AP10	GW	2/12/2026	530.11	feet							
AP10	GW	4/22/2026	532.9	feet							
AP10	GW	7/23/2026	533.37	feet							
AP11	GW	5/27/2021	530.11	feet							
AP11	GW	8/25/2021	522.78	feet							
AP11	GW	2/16/2022	526.89	feet							
AP11	GW	6/1/2022	524.9	feet							
AP11	GW	8/25/2022	522.68	feet							
AP11	GW	11/9/2022	523.8	feet							
AP11	GW	2/16/2023	524.49	feet							
AP11	GW	4/17/2023	523.9	feet							
AP11	GW	7/7/2023	523.39	feet							
AP11	GW	10/26/2023	522.14	feet							
AP11	GW	2/26/2024	523.68	feet							
AP11	GW	5/9/2024	528.35	feet							
AP11	GW	8/12/2024	522.28	feet							
AP11	GW	11/12/2024	522.67	feet							
AP11	GW	2/20/2025	522.86	feet							
AP11	GW	5/22/2025	526.07	feet							
AP11	GW	8/12/2025	522.41	feet							
AP11	GW	11/13/2025	522.52	feet							
AP11	GW	2/11/2026	522.68	feet							
AP11	GW	4/21/2026	524.07	feet							
AP11	GW	7/27/2026	523.08	feet							
AP12	GW	5/27/2021	527.88	feet							
AP12	GW	8/25/2021	523.45	feet							
AP12	GW	2/16/2022	526.52	feet							
AP12	GW	6/1/2022	526.43	feet							
AP12	GW	8/25/2022	523.41	feet							
AP12	GW	11/9/2022	523.68	feet							
AP12	GW	2/16/2023	524.49	feet							
AP12	GW	4/17/2023	525.74	feet							
AP12	GW	7/7/2023	524.07	feet							
AP12	GW	10/26/2023	522.26	feet							
AP12	GW	2/26/2024	523.35	feet							
AP12	GW	5/9/2024	528.46	feet							
AP12	GW	8/12/2024	522.66	feet							
AP12	GW	11/12/2024	522.78	feet							
AP12	GW	2/20/2025	522.62	feet							
AP12	GW	5/22/2025	525.54	feet							
AP12	GW	8/12/2025	522.67	feet							
AP12	GW	11/13/2025	522.46	feet							
AP12	GW	2/11/2026	522.57	feet							
AP12	GW	4/21/2026	525.03	feet							
AP12	GW	7/27/2026	523.16	feet							
AP13	GW	5/27/2021	533.65	feet							
AP13	GW	8/25/2021	524.52	feet							
AP13	GW	2/16/2022	527.68	feet							
AP13	GW	6/1/2022	526.1	feet							
AP13	GW	8/25/2022	524.2	feet							
AP13	GW	11/9/2022	524	feet							
AP13	GW	2/16/2023	523.3	feet							
AP13	GW	4/17/2023	528.09	feet							
AP13	GW	7/7/2023	524.43	feet							
AP13	GW	10/26/2023	522.12	feet							
AP13	GW	2/26/2024	524.9	feet							
AP13	GW	5/9/2024	531.18	feet							
AP13	GW	8/12/2024	523.8	feet							
AP13	GW	11/12/2024	522.6	feet							
AP13	GW	2/20/2025	523.56	feet							
AP13	GW	5/22/2025	527.27	feet							
AP13	GW	8/13/2025	523.35	feet							
AP13	GW	11/13/2025	521.96	feet							
AP13	GW	2/11/2026	522.23	feet							
AP13	GW	4/21/2026	524.96	feet							
AP13	GW	7/27/2026	524.65	feet							
AP14	GW	5/27/2021	537.82	feet							
AP14	GW	6/22/2021	536.59	feet							
AP14	GW	7/16/2021	538.48	feet							
AP14	GW	11/9/2021	537.49	feet							
AP14	GW	2/16/2022	538.17	feet							
AP14	GW	5/31/2022	537.8	feet							
AP14	GW	8/24/2022	536.91	feet							
AP14	GW	11/8/2022	537.59	feet							
AP14	GW	2/16/2023	538.58	feet							
AP14	GW	4/13/2023	537.2	feet							
AP14	GW	7/7/2023	538.12	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AP14	GW	10/26/2023	535.88	feet							
AP14	GW	2/23/2024	537.88	feet							
AP14	GW	5/14/2024	538.05	feet							
AP14	GW	8/13/2024	536.23	feet							
AP14	GW	11/12/2024	534.96	feet							
AP14	GW	5/27/2025	536.88	feet							
AP14	GW	8/13/2025	536.38	feet							
AP14	GW	11/13/2025	534.87	feet							
AP14	GW	2/12/2026	536.11	feet							
AP14	GW	7/23/2026	537.4	feet							
AP17	GW	6/18/2026	527.66	feet							
AP17	GW	7/23/2026	528.04	feet							
AP2	GW	11/18/2016	528.45	feet							
AP2	GW	11/18/2016	528.45	feet							
AP2	GW	2/16/2017	528.33	feet							
AP2	GW	2/16/2017	528.33	feet							
AP2	GW	8/3/2017	528	feet							
AP2	GW	8/3/2017	528	feet							
AP2	GW	11/9/2017	528.74	feet							
AP2	GW	11/9/2017	528.74	feet							
AP2	GW	1/31/2018	528	feet							
AP2	GW	1/31/2018	528	feet							
AP2	GW	5/4/2018	528.74	feet							
AP2	GW	5/4/2018	528.74	feet							
AP2	GW	8/1/2019	526.92	feet							
AP2	GW	11/1/2019	527.84	feet							
AP2	GW	3/5/2020	530.14	feet							
AP2	GW	8/5/2020	528.08	feet							
AP2	GW	11/23/2020	536.1	feet							
AP2	GW	1/21/2021	528.57	feet							
AP2	GW	5/27/2021	529.32	feet							
AP2	GW	8/25/2021	527.97	feet							
AP2	GW	11/9/2021	529.26	feet							
AP2	GW	2/15/2022	529.89	feet							
AP2	GW	5/31/2022	528.14	feet							
AP2	GW	8/23/2022	527.23	feet							
AP2	GW	11/8/2022	528.24	feet							
AP2	GW	1/27/2023	529.2	feet							
AP2	GW	4/12/2023	528.86	feet							
AP2	GW	7/7/2023	527.53	feet							
AP2	GW	10/26/2023	527.4	feet							
AP2	GW	2/22/2024	528.99	feet							
AP2	GW	5/13/2024	529.05	feet							
AP2	GW	8/12/2024	527.61	feet							
AP2	GW	11/11/2024	529.56	feet							
AP2	GW	2/18/2025	528.23	feet							
AP2	GW	5/21/2025	528.31	feet							
AP2	GW	8/12/2025	527.5	feet							
AP2	GW	11/12/2025	526.48	feet							
AP2	GW	2/12/2026	527.17	feet							
AP2	GW	4/21/2026	528.78	feet							
AP2	GW	7/24/2026	528.41	feet							
AP3	GW	11/18/2016	528.21	feet							
AP3	GW	2/16/2017	528.39	feet							
AP3	GW	8/3/2017	528.35	feet							
AP3	GW	11/9/2017	528.27	feet							
AP3	GW	1/31/2018	528.35	feet							
AP3	GW	5/4/2018	528.3	feet							
AP3	GW	8/1/2019	526.22	feet							
AP3	GW	11/1/2019	527.92	feet							
AP3	GW	3/5/2020	529.33	feet							
AP3	GW	8/5/2020	526.05	feet							
AP3	GW	11/23/2020	535.4	feet							
AP3	GW	1/21/2021	526.22	feet							
AP3	GW	5/27/2021	526.92	feet							
AP3	GW	8/25/2021	525.77	feet							
AP3	GW	11/9/2021	526.31	feet							
AP3	GW	2/15/2022	526.98	feet							
AP3	GW	5/31/2022	525.76	feet							
AP3	GW	8/23/2022	524.39	feet							
AP3	GW	11/8/2022	525.64	feet							
AP3	GW	1/27/2023	525.93	feet							
AP3	GW	4/12/2023	525.77	feet							
AP3	GW	7/7/2023	524.69	feet							
AP3	GW	10/26/2023	525.31	feet							
AP3	GW	2/22/2024	526.08	feet							
AP3	GW	5/13/2024	526.44	feet							
AP3	GW	8/29/2024	525.3	feet							
AP3	GW	11/11/2024	525.7	feet							
AP3	GW	2/19/2025	525.5	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AP3	GW	5/21/2025	527.58	feet							
AP3	GW	8/12/2025	526.52	feet							
AP3	GW	11/12/2025	525.37	feet							
AP3	GW	2/12/2026	525.27	feet							
AP3	GW	4/21/2026	525.95	feet							
AP3	GW	7/24/2026	525.64	feet							
AP4	GW	11/18/2016	547.53	feet							
AP4	GW	2/16/2017	547.58	feet							
AP4	GW	8/3/2017	548.38	feet							
AP4	GW	11/9/2017	546.88	feet							
AP4	GW	1/31/2018	548.38	feet							
AP4	GW	5/4/2018	547.18	feet							
AP4	GW	8/1/2019	550.02	feet							
AP4	GW	11/1/2019	547.86	feet							
AP4	GW	3/5/2020	547.55	feet							
AP4	GW	8/6/2020	548.14	feet							
AP4	GW	11/23/2020	559.2	feet							
AP4	GW	1/21/2021	546.5	feet							
AP4	GW	5/27/2021	547.29	feet							
AP4	GW	8/25/2021	550.35	feet							
AP4	GW	11/9/2021	549.99	feet							
AP4	GW	2/16/2022	550.78	feet							
AP4	GW	5/31/2022	550.12	feet							
AP4	GW	8/23/2022	550.35	feet							
AP4	GW	11/8/2022	550.38	feet							
AP4	GW	1/26/2023	549.23	feet							
AP4	GW	4/13/2023	546.08	feet							
AP4	GW	7/7/2023	546.65	feet							
AP4	GW	10/26/2023	544.81	feet							
AP4	GW	2/23/2024	546.56	feet							
AP4	GW	5/13/2024	546.92	feet							
AP4	GW	8/12/2024	544.77	feet							
AP4	GW	11/11/2024	544.69	feet							
AP4	GW	2/18/2025	544.92	feet							
AP4	GW	5/28/2025	545.22	feet							
AP4	GW	8/12/2025	544.74	feet							
AP4	GW	11/13/2025	542.66	feet							
AP4	GW	2/11/2026	542.66	feet							
AP4	GW	4/21/2026	544.78	feet							
AP4	GW	7/24/2026	545.49	feet							
AP5	GW	11/18/2016	564.42	feet							
AP5	GW	2/16/2017	566.46	feet							
AP5	GW	8/3/2017	564.35	feet							
AP5	GW	11/9/2017	563	feet							
AP5	GW	1/31/2018	564.35	feet							
AP5	GW	5/4/2018	570.36	feet							
AP5	GW	8/1/2019	574.72	feet							
AP5	GW	11/1/2019	569.05	feet							
AP5	GW	3/5/2020	580.07	feet							
AP5	GW	8/6/2020	566.07	feet							
AP5	GW	11/23/2020	583.9	feet							
AP5	GW	1/21/2021	563.34	feet							
AP5	GW	5/27/2021	573.78	feet							
AP5	GW	8/25/2021	572.01	feet							
AP5	GW	11/10/2021	570.56	feet							
AP5	GW	2/16/2022	571.49	feet							
AP5	GW	5/31/2022	573.85	feet							
AP5	GW	8/23/2022	569.55	feet							
AP5	GW	11/8/2022	572.2	feet							
AP5	GW	1/27/2023	569.03	feet							
AP5	GW	4/13/2023	570.85	feet							
AP5	GW	7/7/2023	569.82	feet							
AP5	GW	10/26/2023	565.73	feet							
AP5	GW	2/22/2024	567.95	feet							
AP5	GW	5/14/2024	570.3	feet							
AP5	GW	8/12/2024	566.56	feet							
AP5	GW	11/11/2024	567.62	feet							
AP5	GW	2/18/2025	568.92	feet							
AP5	GW	5/21/2025	569.49	feet							
AP5	GW	8/12/2025	567.96	feet							
AP5	GW	11/13/2025	563.28	feet							
AP5	GW	2/11/2026	564.68	feet							
AP5	GW	4/21/2026	569.24	feet							
AP5	GW	7/24/2026	569.94	feet							
AP6	GW	8/1/2019	528.64	feet							
AP6	GW	2/27/2020	531.08	feet							
AP6	GW	8/5/2020	528.39	feet							
AP6	GW	11/23/2020	537.82	feet							
AP6	GW	1/21/2021	527.93	feet							
AP6	GW	5/26/2021	531.38	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AP6	GW	8/25/2021	531.71	feet							
AP6	GW	11/10/2021	530.62	feet							
AP6	GW	2/15/2022	530.04	feet							
AP6	GW	5/31/2022	530.02	feet							
AP6	GW	8/23/2022	528.6	feet							
AP6	GW	11/8/2022	528.62	feet							
AP6	GW	1/27/2023	529.87	feet							
AP6	GW	4/12/2023	530.39	feet							
AP6	GW	7/6/2023	528.34	feet							
AP6	GW	10/26/2023	527.76	feet							
AP6	GW	2/22/2024	529.97	feet							
AP6	GW	5/10/2024	531.25	feet							
AP6	GW	8/12/2024	528.07	feet							
AP6	GW	11/11/2024	528.01	feet							
AP6	GW	2/18/2025	529.26	feet							
AP6	GW	5/21/2025	530.05	feet							
AP6	GW	8/12/2025	529.69	feet							
AP6	GW	11/13/2025	526.49	feet							
AP6	GW	2/12/2026	526.53	feet							
AP6	GW	4/21/2026	527.1	feet							
AP6	GW	7/27/2026	529.55	feet							
AP7	GW	8/1/2019	529.84	feet							
AP7	GW	2/27/2020	530.41	feet							
AP7	GW	8/5/2020	527.66	feet							
AP7	GW	11/23/2020	539.02	feet							
AP7	GW	1/21/2021	525.93	feet							
AP7	GW	5/26/2021	528.62	feet							
AP7	GW	8/25/2021	530.92	feet							
AP7	GW	11/10/2021	529.14	feet							
AP7	GW	2/15/2022	528.13	feet							
AP7	GW	6/1/2022	529.12	feet							
AP7	GW	8/25/2022	527.81	feet							
AP7	GW	11/9/2022	527.5	feet							
AP7	GW	2/16/2023	525.54	feet							
AP7	GW	4/17/2023	528.56	feet							
AP7	GW	7/7/2023	527.7	feet							
AP7	GW	10/26/2023	526.57	feet							
AP7	GW	2/26/2024	527.94	feet							
AP7	GW	5/14/2024	529.15	feet							
AP7	GW	8/12/2024	527	feet							
AP7	GW	11/13/2024	526.58	feet							
AP7	GW	2/20/2025	527.1	feet							
AP7	GW	5/27/2025	528.38	feet							
AP7	GW	8/13/2025	527.31	feet							
AP7	GW	11/13/2025	525.1	feet							
AP7	GW	2/11/2026	524.88	feet							
AP7	GW	4/21/2026	526.2	feet							
AP7	GW	7/27/2026	527.46	feet							
AP8	GW	5/26/2021	533.29	feet							
AP8	GW	6/22/2021	531.65	feet							
AP8	GW	7/16/2021	533.39	feet							
AP8	GW	11/10/2021	532.38	feet							
AP8	GW	2/15/2022	530.79	feet							
AP8	GW	5/31/2022	532.17	feet							
AP8	GW	8/23/2022	529.9	feet							
AP8	GW	11/8/2022	530.55	feet							
AP8	GW	1/27/2023	532	feet							
AP8	GW	4/12/2023	532.85	feet							
AP8	GW	7/7/2023	530.46	feet							
AP8	GW	10/26/2023	529.13	feet							
AP8	GW	2/21/2024	532.72	feet							
AP8	GW	5/10/2024	533.46	feet							
AP8	GW	8/13/2024	530.23	feet							
AP8	GW	11/13/2024	529.88	feet							
AP8	GW	2/19/2025	531.69	feet							
AP8	GW	5/21/2025	533.19	feet							
AP8	GW	8/13/2025	531.24	feet							
AP8	GW	11/13/2025	527.72	feet							
AP8	GW	2/12/2026	528.44	feet							
AP8	GW	4/21/2026	531.27	feet							
AP8	GW	7/22/2026	531.77	feet							
AP9	GW	5/27/2021	524.96	feet							
AP9	GW	8/25/2021	527.03	feet							
AP9	GW	2/15/2022	529.4	feet							
AP9	GW	6/1/2022	528.69	feet							
AP9	GW	8/25/2022	527.56	feet							
AP9	GW	11/9/2022	527.92	feet							
AP9	GW	2/16/2023	529.27	feet							
AP9	GW	4/17/2023	528.17	feet							
AP9	GW	7/7/2023	527.82	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AP9	GW	10/26/2023	526.43	feet							
AP9	GW	2/26/2024	528.25	feet							
AP9	GW	5/14/2024	528.43	feet							
AP9	GW	8/12/2024	526.41	feet							
AP9	GW	11/13/2024	527.07	feet							
AP9	GW	2/20/2025	527.01	feet							
AP9	GW	5/27/2025	527.81	feet							
AP9	GW	8/13/2025	526.66	feet							
AP9	GW	11/13/2025	526.11	feet							
AP9	GW	2/11/2026	526.21	feet							
AP9	GW	4/21/2026	528.48	feet							
AP9	GW	7/27/2026	527.17	feet							
AW1	GW	11/18/2016	539.19	feet							
AW1	GW	2/15/2017	541.9	feet							
AW1	GW	5/5/2017	543.07	feet							
AW1	GW	8/3/2017	541.27	feet							
AW1	GW	11/10/2017	541.94	feet							
AW1	GW	1/31/2018	541.88	feet							
AW1	GW	5/4/2018	541.32	feet							
AW1	GW	7/9/2018	541.36	feet							
AW1	GW	2/13/2019	542.65	feet							
AW1	GW	5/20/2019	542	feet							
AW1	GW	8/1/2019	541.23	feet							
AW1	GW	11/1/2019	542.76	feet							
AW1	GW	2/27/2020	544.4	feet							
AW1	GW	5/6/2020	543.45	feet							
AW1	GW	8/4/2020	541.97	feet							
AW1	GW	11/23/2020	541.06	feet							
AW1	GW	1/20/2021	541.86	feet							
AW1	GW	5/28/2021	543.11	feet							
AW1	GW	8/25/2021	538.85	feet							
AW1	GW	11/10/2021	542.47	feet							
AW1	GW	2/16/2022	541.46	feet							
AW1	GW	6/2/2022	541.55	feet							
AW1	GW	8/24/2022	539.31	feet							
AW1	GW	11/9/2022	540.7	feet							
AW1	GW	1/26/2023	542.45	feet							
AW1	GW	4/11/2023	542.23	feet							
AW1	GW	7/5/2023	540.91	feet							
AW1	GW	10/25/2023	538.22	feet							
AW1	GW	2/1/2024	543.73	feet							
AW1	GW	5/10/2024	542.97	feet							
AW1	GW	8/13/2024	540.03	feet							
AW1	GW	11/11/2024	541.06	feet							
AW1	GW	2/20/2025	542.15	feet							
AW1	GW	5/22/2025	541.83	feet							
AW1	GW	8/12/2025	540.59	feet							
AW1	GW	11/13/2025	536.34	feet							
AW1	GW	2/11/2026	537.69	feet							
AW1	GW	4/23/2026	540.64	feet							
AW1	GW	6/18/2026	541.04	feet							
AW1	GW	7/22/2026	542.32	feet							
AW2	GW	11/18/2016	523.95	feet							
AW2	GW	2/15/2017	525.18	feet							
AW2	GW	5/5/2017	529.97	feet							
AW2	GW	8/3/2017	523.14	feet							
AW2	GW	11/10/2017	521.79	feet							
AW2	GW	1/31/2018	523.86	feet							
AW2	GW	5/4/2018	526.15	feet							
AW2	GW	7/9/2018	526.2	feet							
AW2	GW	5/20/2019	526.42	feet							
AW2	GW	8/1/2019	523.9	feet							
AW2	GW	11/1/2019	527	feet							
AW2	GW	2/27/2020	526.73	feet							
AW2	GW	5/6/2020	528.59	feet							
AW2	GW	8/4/2020	523.99	feet							
AW2	GW	11/23/2020	522.61	feet							
AW2	GW	1/20/2021	524.34	feet							
AW2	GW	5/28/2021	526.46	feet							
AW2	GW	8/25/2021	523.79	feet							
AW2	GW	11/10/2021	526.39	feet							
AW2	GW	2/16/2022	526.5	feet							
AW2	GW	6/2/2022	526.38	feet							
AW2	GW	8/24/2022	523.84	feet							
AW2	GW	11/9/2022	524.8	feet							
AW2	GW	1/26/2023	523.57	feet							
AW2	GW	4/11/2023	525.78	feet							
AW2	GW	7/6/2023	524.22	feet							
AW2	GW	10/25/2023	522.57	feet							
AW2	GW	2/21/2024	526.11	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
AW2	GW	5/13/2024	526.69	feet							
AW2	GW	8/12/2024	523.69	feet							
AW2	GW	11/13/2024	525.47	feet							
AW2	GW	2/20/2025	525.45	feet							
AW2	GW	3/18/2025	526.99	feet							
AW2	GW	4/24/2025	526.19	feet							
AW2	GW	5/22/2025	525.06	feet							
AW2	GW	8/11/2025	523.96	feet							
AW2	GW	11/13/2025	521.46	feet							
AW2	GW	2/11/2026	523.31	feet							
AW2	GW	4/22/2026	525.54	feet							
AW2	GW	6/18/2026	526.53	feet							
AW2	GW	7/23/2026	526.77	feet							
AW4	GW	6/17/2026	534.59	feet							
AW4	GW	7/27/2026	530.12	feet							
AW5	GW	6/18/2026	528.85	feet							
AW5	GW	7/23/2026	528.35	feet							
AW6	GW	6/18/2026	525.25	feet							
AW6	GW	7/22/2026	526.05	feet							
G110	GW	11/18/2016	532.36	feet							
G110	GW	2/15/2017	533.2	feet							
G110	GW	5/5/2017	534.54	feet							
G110	GW	8/3/2017	532.58	feet							
G110	GW	11/10/2017	531.7	feet							
G110	GW	1/31/2018	532.3	feet							
G110	GW	5/4/2018	533.12	feet							
G110	GW	7/9/2018	531.93	feet							
G110	GW	2/13/2019	534.08	feet							
G110	GW	5/20/2019	533.91	feet							
G110	GW	8/1/2019	532.65	feet							
G110	GW	11/1/2019	534.02	feet							
G110	GW	2/27/2020	534.15	feet							
G110	GW	5/6/2020	534.5	feet							
G110	GW	8/5/2020	533.06	feet							
G110	GW	11/23/2020	531.99	feet							
G110	GW	1/20/2021	532.78	feet							
G110	GW	5/28/2021	529.8	feet							
G110	GW	8/25/2021	533.01	feet							
G110	GW	11/10/2021	533.68	feet							
G110	GW	2/17/2022	534.77	feet							
G110	GW	6/2/2022	534.54	feet							
G110	GW	9/29/2022	533.13	feet							
G110	GW	11/9/2022	533.3	feet							
G110	GW	1/26/2023	534.19	feet							
G110	GW	4/12/2023	533.73	feet							
G110	GW	7/6/2023	532.93	feet							
G110	GW	10/26/2023	531.48	feet							
G110	GW	2/1/2024	533.84	feet							
G110	GW	5/8/2024	534.01	feet							
G110	GW	8/13/2024	531.48	feet							
G110	GW	11/13/2024	532.44	feet							
G110	GW	2/19/2025	532.8	feet							
G110	GW	5/21/2025	532.35	feet							
G110	GW	8/13/2025	532	feet							
G110	GW	11/12/2025	529.89	feet							
G110	GW	2/11/2026	531.11	feet							
G110	GW	4/23/2026	532.49	feet							
G110	GW	7/22/2026	533.84	feet							
G112	GW	11/18/2016	524.4	feet							
G112	GW	2/16/2017	526.66	feet							
G112	GW	5/5/2017	528.53	feet							
G112	GW	8/3/2017	525.98	feet							
G112	GW	11/10/2017	525.21	feet							
G112	GW	1/31/2018	524.74	feet							
G112	GW	5/4/2018	527.34	feet							
G112	GW	7/9/2018	525.58	feet							
G112	GW	2/13/2019	528.3	feet							
G112	GW	5/20/2019	527.73	feet							
G112	GW	8/1/2019	525.87	feet							
G112	GW	11/1/2019	527.57	feet							
G112	GW	2/27/2020	528.13	feet							
G112	GW	5/6/2020	528.66	feet							
G112	GW	8/4/2020	526.68	feet							
G112	GW	11/23/2020	525.46	feet							
G112	GW	1/21/2021	526.97	feet							
G112	GW	5/28/2021	527	feet							
G112	GW	8/25/2021	526.11	feet							
G112	GW	11/10/2021	527.58	feet							
G112	GW	2/17/2022	527.25	feet							
G112	GW	6/2/2022	527.59	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
G112	GW	8/24/2022	525.37	feet							
G112	GW	11/9/2022	526.05	feet							
G112	GW	1/26/2023	526.25	feet							
G112	GW	4/10/2023	527.23	feet							
G112	GW	7/6/2023	530.35	feet							
G112	GW	10/25/2023	524.38	feet							
G112	GW	2/22/2024	528.3	feet							
G112	GW	5/9/2024	527.81	feet							
G112	GW	8/13/2024	525.83	feet							
G112	GW	11/11/2024	527	feet							
G112	GW	2/20/2025	526.31	feet							
G112	GW	5/21/2025	537.26	feet							
G112	GW	8/12/2025	525.89	feet							
G112	GW	11/13/2025	523.4	feet							
G112	GW	2/11/2026	525.87	feet							
G112	GW	4/23/2026	526.93	feet							
G112	GW	7/23/2026	528.46	feet							
G120	GW	11/18/2016	535.6	feet							
G120	GW	2/15/2017	536.84	feet							
G120	GW	5/5/2017	538.16	feet							
G120	GW	8/3/2017	545.66	feet							
G120	GW	11/10/2017	536.19	feet							
G120	GW	1/31/2018	536.54	feet							
G120	GW	5/4/2018	536.31	feet							
G120	GW	7/9/2018	536.35	feet							
G120	GW	2/13/2019	538.03	feet							
G120	GW	5/20/2019	537.62	feet							
G120	GW	8/1/2019	534.71	feet							
G120	GW	11/1/2019	537.58	feet							
G120	GW	2/27/2020	539.01	feet							
G120	GW	5/6/2020	538.68	feet							
G120	GW	8/4/2020	536.49	feet							
G120	GW	11/23/2020	535.91	feet							
G120	GW	1/20/2021	537.12	feet							
G120	GW	5/28/2021	536.7	feet							
G120	GW	8/25/2021	535.32	feet							
G120	GW	11/10/2021	537.7	feet							
G120	GW	2/16/2022	537.19	feet							
G120	GW	6/2/2022	536.92	feet							
G120	GW	8/23/2022	535.11	feet							
G120	GW	11/9/2022	537.06	feet							
G120	GW	1/26/2023	537.85	feet							
G120	GW	4/10/2023	538.17	feet							
G120	GW	7/5/2023	535.54	feet							
G120	GW	10/25/2023	534.49	feet							
G120	GW	2/2/2024	538.47	feet							
G120	GW	5/9/2024	538.31	feet							
G120	GW	8/13/2024	535.45	feet							
G120	GW	11/13/2024	536.38	feet							
G120	GW	2/21/2025	537.21	feet							
G120	GW	5/21/2025	536.92	feet							
G120	GW	8/12/2025	535	feet							
G120	GW	11/13/2025	532.38	feet							
G120	GW	2/12/2026	533.5	feet							
G120	GW	4/22/2026	536.67	feet							
G120	GW	6/17/2026	536.19	feet							
G120	GW	7/22/2026	537.72	feet							
G121	GW	11/18/2016	526.3	feet							
G121	GW	2/15/2017	526.97	feet							
G121	GW	5/5/2017	532.16	feet							
G121	GW	8/3/2017	526.19	feet							
G121	GW	11/10/2017	524.91	feet							
G121	GW	1/31/2018	525.49	feet							
G121	GW	5/4/2018	525.66	feet							
G121	GW	7/9/2018	525.74	feet							
G121	GW	2/13/2019	529.95	feet							
G121	GW	5/20/2019	528.57	feet							
G121	GW	8/1/2019	525.24	feet							
G121	GW	11/1/2019	528.41	feet							
G121	GW	2/27/2020	530.68	feet							
G121	GW	5/6/2020	531.4	feet							
G121	GW	8/4/2020	526.68	feet							
G121	GW	11/23/2020	525.15	feet							
G121	GW	1/20/2021	525.95	feet							
G121	GW	5/27/2021	529.23	feet							
G121	GW	8/25/2021	526.81	feet							
G121	GW	11/10/2021	528.84	feet							
G121	GW	2/16/2022	528.62	feet							
G121	GW	6/2/2022	529.2	feet							
G121	GW	8/23/2022	526.65	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
G121	GW	11/9/2022	526.59	feet							
G121	GW	1/26/2023	528.22	feet							
G121	GW	4/10/2023	528.75	feet							
G121	GW	7/5/2023	526.58	feet							
G121	GW	10/25/2023	525.06	feet							
G121	GW	2/2/2024	529.06	feet							
G121	GW	5/9/2024	528.84	feet							
G121	GW	8/13/2024	526.26	feet							
G121	GW	11/11/2024	521.07	feet							
G121	GW	2/20/2025	527.35	feet							
G121	GW	3/18/2025	528.17	feet							
G121	GW	4/24/2025	528.47	feet							
G121	GW	5/22/2025	527.78	feet							
G121	GW	8/11/2025	526.75	feet							
G121	GW	11/13/2025	524.89	feet							
G121	GW	2/11/2026	524.69	feet							
G121	GW	4/22/2026	527.27	feet							
G121	GW	6/18/2026	527.82	feet							
G121	GW	7/23/2026	527.76	feet							
G122	GW	11/18/2016	523.97	feet							
G122	GW	2/15/2017	524.97	feet							
G122	GW	5/5/2017	532.75	feet							
G122	GW	8/3/2017	523.2	feet							
G122	GW	11/10/2017	521.99	feet							
G122	GW	1/31/2018	522.8	feet							
G122	GW	5/4/2018	523.88	feet							
G122	GW	7/9/2018	523.97	feet							
G122	GW	2/13/2019	528.92	feet							
G122	GW	5/20/2019	527.3	feet							
G122	GW	8/1/2019	523.91	feet							
G122	GW	11/1/2019	527.78	feet							
G122	GW	2/27/2020	528.47	feet							
G122	GW	5/6/2020	530.17	feet							
G122	GW	8/4/2020	523.89	feet							
G122	GW	11/23/2020	522.17	feet							
G122	GW	1/20/2021	523.64	feet							
G122	GW	5/28/2021	526.76	feet							
G122	GW	8/25/2021	524.33	feet							
G122	GW	11/10/2021	526.15	feet							
G122	GW	2/16/2022	526.1	feet							
G122	GW	6/2/2022	525.7	feet							
G122	GW	8/23/2022	523.5	feet							
G122	GW	11/9/2022	523.14	feet							
G122	GW	1/26/2023	525.55	feet							
G122	GW	4/10/2023	525.7	feet							
G122	GW	7/6/2023	523.46	feet							
G122	GW	10/25/2023	522.16	feet							
G122	GW	2/2/2024	527.69	feet							
G122	GW	5/9/2024	526.73	feet							
G122	GW	8/13/2024	523.19	feet							
G122	GW	11/11/2024	524.16	feet							
G122	GW	2/20/2025	524.68	feet							
G122	GW	3/18/2025	525.21	feet							
G122	GW	4/24/2025	525.61	feet							
G122	GW	5/22/2025	524.65	feet							
G122	GW	8/11/2025	522.28	feet							
G122	GW	11/13/2025	520.59	feet							
G122	GW	2/11/2026	521.92	feet							
G122	GW	4/22/2026	524.45	feet							
G122	GW	6/18/2026	526.56	feet							
G122	GW	7/24/2026	526.5	feet							
GP1	GW	8/1/2019	530.26	feet							
GP1	GW	8/5/2020	526.81	feet							
GP1	GW	11/23/2020	539.44	feet							
GP1	GW	5/27/2021	529.48	feet							
GP1	GW	8/24/2021	527.65	feet							
GP3	GW	8/1/2019	542.64	feet							
GP3	GW	8/5/2020	531.36	feet							
GP3	GW	11/23/2020	551.82	feet							
GP3	GW	5/27/2021	534.69	feet							
GP3	GW	8/24/2021	532.17	feet							
GP7	GW	5/27/2021	526.38	feet							
GP7	GW	8/12/2025	524.23	feet							
GP8	GW	8/5/2020	524.06	feet							
GP8	GW	11/23/2020	533.12	feet							
P03D	GW	8/11/2025	524.53	feet							
P04D	GW	2/16/2017	531.76	feet							
P04D	GW	6/1/2017	532.87	feet							
P04D	GW	1/31/2018	529	feet							
P04D	GW	5/4/2018	529.14	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
P04D	GW	7/9/2018	533.51	feet							
P04D	GW	10/26/2018	534.71	feet							
P04D	GW	11/1/2019	531.13	feet							
P04D	GW	2/27/2020	535.79	feet							
P04D	GW	5/6/2020	536.06	feet							
P04D	GW	8/5/2020	541.01	feet							
P04D	GW	11/23/2020	526.25	feet							
P04D	GW	1/22/2021	525.75	feet							
P04D	GW	1/22/2021	525.75	feet							
P04D	GW	5/27/2021	541.01	feet							
P04D	GW	5/27/2021	541.01	feet							
P04D	GW	8/25/2021	532.93	feet							
P04D	GW	8/25/2021	532.93	feet							
P04D	GW	8/11/2025	526.68	feet							
P05D	GW	11/17/2016	535.2	feet							
P05D	GW	2/16/2017	532.08	feet							
P05D	GW	6/1/2017	533.19	feet							
P05D	GW	8/2/2017	531.7	feet							
P05D	GW	11/9/2017	530.81	feet							
P05D	GW	1/31/2018	536.54	feet							
P05D	GW	5/4/2018	536.81	feet							
P05D	GW	7/9/2018	531.21	feet							
P05D	GW	10/26/2018	531.77	feet							
P05D	GW	11/1/2019	529.94	feet							
P05D	GW	2/27/2020	533.47	feet							
P05D	GW	5/6/2020	533.59	feet							
P05D	GW	8/5/2020	530.36	feet							
P05D	GW	11/23/2020	524.93	feet							
P05D	GW	1/22/2021	524.37	feet							
P05D	GW	1/22/2021	524.37	feet							
P05D	GW	5/27/2021	532.73	feet							
P05D	GW	5/27/2021	532.73	feet							
P05D	GW	8/25/2021	531.48	feet							
P05D	GW	8/25/2021	531.48	feet							
P06D	GW	11/17/2016	526.7	feet							
P06D	GW	2/16/2017	534.2	feet							
P06D	GW	6/1/2017	534.2	feet							
P06D	GW	8/2/2017	524.7	feet							
P06D	GW	11/9/2017	524.7	feet							
P06D	GW	1/31/2018	524.7	feet							
P06D	GW	5/4/2018	524.7	feet							
P06D	GW	7/9/2018	524.7	feet							
P06D	GW	10/26/2018	524.7	feet							
P06D	GW	11/1/2019	524.7	feet							
P06D	GW	2/27/2020	524.7	feet							
P06D	GW	2/27/2020	524.7	feet							
P06D	GW	5/6/2020	524.7	feet							
P06D	GW	5/6/2020	524.7	feet							
P06D	GW	8/5/2020	525.2	feet							
P06D	GW	8/5/2020	525.2	feet							
P06D	GW	11/23/2020	524.7	feet							
P06D	GW	11/23/2020	524.7	feet							
P06D	GW	1/22/2021	524.7	feet							
P06D	GW	1/22/2021	524.7	feet							
P06D	GW	5/27/2021	524.7	feet							
P06D	GW	5/27/2021	524.7	feet							
P06D	GW	8/25/2021	524.7	feet							
P06D	GW	8/25/2021	524.7	feet							
P07D	GW	11/17/2016	523.38	feet							
P07D	GW	2/16/2017	524.86	feet							
P07D	GW	6/1/2017	525.94	feet							
P07D	GW	8/2/2017	525.25	feet							
P07D	GW	11/9/2017	524.42	feet							
P07D	GW	1/31/2018	526.23	feet							
P07D	GW	5/4/2018	526.48	feet							
P07D	GW	7/9/2018	522.52	feet							
P07D	GW	10/26/2018	524.28	feet							
P07D	GW	11/1/2019	526	feet							
P07D	GW	2/27/2020	526.5	feet							
P07D	GW	2/27/2020	526.5	feet							
P07D	GW	5/6/2020	526.5	feet							
P07D	GW	5/6/2020	526.5	feet							
P07D	GW	8/5/2020	526	feet							
P07D	GW	8/5/2020	526	feet							
P07D	GW	11/23/2020	526.5	feet							
P07D	GW	11/23/2020	526.5	feet							
P07D	GW	1/22/2021	526.5	feet							
P07D	GW	1/22/2021	526.5	feet							
P07D	GW	5/27/2021	526.5	feet							
P07D	GW	5/27/2021	526.5	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
P07D	GW	8/25/2021	526.5	feet							
P07D	GW	8/25/2021	526.5	feet							
P07D	GW	8/12/2024	522	feet							
P07D	GW	11/13/2024	523.88	feet							
P07D	GW	2/20/2025	523.76	feet							
P07D	GW	3/18/2025	524.07	feet							
P07D	GW	4/24/2025	524.26	feet							
P07D	GW	5/27/2025	522.94	feet							
P07D	GW	8/11/2025	523.23	feet							
P07D	GW	2/12/2026	522.09	feet							
P07D	GW	6/17/2026	524.76	feet							
P07D	GW	7/23/2026	525.41	feet							
P09D	GW	11/17/2016	525.46	feet							
P09D	GW	2/16/2017	526.81	feet							
P09D	GW	6/1/2017	527.57	feet							
P09D	GW	8/2/2017	526.93	feet							
P09D	GW	11/9/2017	526.02	feet							
P09D	GW	1/31/2018	528.21	feet							
P09D	GW	5/4/2018	529.03	feet							
P09D	GW	7/9/2018	524.67	feet							
P09D	GW	10/26/2018	527	feet							
P09D	GW	11/1/2019	527.92	feet							
P09D	GW	2/27/2020	528.02	feet							
P09D	GW	2/27/2020	528.02	feet							
P09D	GW	5/6/2020	528.36	feet							
P09D	GW	5/6/2020	528.36	feet							
P09D	GW	8/5/2020	526.21	feet							
P09D	GW	8/5/2020	526.21	feet							
P09D	GW	11/23/2020	525.83	feet							
P09D	GW	11/23/2020	525.83	feet							
P09D	GW	1/22/2021	526.16	feet							
P09D	GW	1/22/2021	526.16	feet							
P09D	GW	5/27/2021	527.37	feet							
P09D	GW	5/27/2021	527.37	feet							
P09D	GW	8/25/2021	526.27	feet							
P09D	GW	8/25/2021	526.27	feet							
P104	GW	11/17/2016	523.74	feet							
P104	GW	2/16/2017	524.83	feet							
P104	GW	6/1/2017	525.25	feet							
P104	GW	8/2/2017	524.65	feet							
P104	GW	11/9/2017	524.12	feet							
P104	GW	1/31/2018	521.98	feet							
P104	GW	5/4/2018	522.04	feet							
P104	GW	7/9/2018	523.39	feet							
P104	GW	10/26/2018	524.07	feet							
P104	GW	11/1/2019	530.04	feet							
P104	GW	2/27/2020	527.54	feet							
P104	GW	5/6/2020	527.96	feet							
P104	GW	8/5/2020	523.76	feet							
P104	GW	11/23/2020	521.2	feet							
P104	GW	1/22/2021	523.2	feet							
P104	GW	5/27/2021	533	feet							
P104	GW	8/25/2021	524.14	feet							
P104	GW	8/11/2025	522.25	feet							
P106	GW	11/17/2016	523.75	feet							
P106	GW	2/16/2017	525.35	feet							
P106	GW	6/1/2017	527.6	feet							
P106	GW	8/2/2017	525.02	feet							
P106	GW	11/9/2017	525.34	feet							
P106	GW	1/31/2018	525.25	feet							
P106	GW	5/4/2018	525.34	feet							
P106	GW	7/9/2018	522.91	feet							
P106	GW	10/26/2018	524.74	feet							
P106	GW	11/1/2019	524.9	feet							
P106	GW	2/27/2020	526.1	feet							
P106	GW	5/6/2020	0	feet							
P106	GW	8/5/2020	524.9	feet							
P106	GW	11/23/2020	522.6	feet							
P106	GW	1/22/2021	524.6	feet							
P106	GW	5/27/2021	524.6	feet							
P106	GW	8/25/2021	524.6	feet							
R101	GW	11/18/2016	537.86	feet							
R101	GW	2/16/2017	538.38	feet							
R101	GW	5/5/2017	543.93	feet							
R101	GW	8/3/2017	538.33	feet							
R101	GW	11/10/2017	537.55	feet							
R101	GW	1/31/2018	537.96	feet							
R101	GW	5/4/2018	539.93	feet							
R101	GW	7/9/2018	538.67	feet							
R101	GW	10/26/2018	546.8	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
R101	GW	2/13/2019	541.58	feet							
R101	GW	5/20/2019	541.69	feet							
R101	GW	8/1/2019	539.66	feet							
R101	GW	11/1/2019	540.04	feet							
R101	GW	2/27/2020	543.75	feet							
R101	GW	5/6/2020	544.89	feet							
R101	GW	8/4/2020	539.69	feet							
R101	GW	11/23/2020	538.33	feet							
R101	GW	1/21/2021	538.59	feet							
R101	GW	5/28/2021	540.6	feet							
R101	GW	8/25/2021	539.49	feet							
R101	GW	11/10/2021	540.83	feet							
R101	GW	2/17/2022	543.89	feet							
R101	GW	6/2/2022	542.47	feet							
R101	GW	8/24/2022	539.52	feet							
R101	GW	11/9/2022	539.71	feet							
R101	GW	1/26/2023	541.5	feet							
R101	GW	4/11/2023	541	feet							
R101	GW	7/7/2023	539.39	feet							
R101	GW	10/25/2023	538.07	feet							
R101	GW	2/23/2024	540.14	feet							
R101	GW	5/13/2024	540.85	feet							
R101	GW	8/12/2024	539.24	feet							
R101	GW	11/11/2024	539.35	feet							
R101	GW	2/21/2025	539.91	feet							
R101	GW	3/18/2025	542.27	feet							
R101	GW	4/24/2025	541.61	feet							
R101	GW	5/27/2025	539.92	feet							
R101	GW	8/11/2025	539.31	feet							
R101	GW	11/12/2025	536.97	feet							
R101	GW	2/11/2026	537.96	feet							
R101	GW	4/22/2026	539.97	feet							
R101	GW	6/18/2026	539.21	feet							
R101	GW	7/22/2026	540.34	feet							
R103	GW	11/17/2016	528.87	feet							
R103	GW	2/16/2017	529.71	feet							
R103	GW	8/3/2017	529.83	feet							
R103	GW	11/9/2017	529.39	feet							
R103	GW	1/31/2018	527.58	feet							
R103	GW	5/4/2018	529.05	feet							
R103	GW	7/9/2018	527.98	feet							
R103	GW	10/26/2018	528.86	feet							
R103	GW	11/1/2019	529.38	feet							
R103	GW	2/27/2020	532.09	feet							
R103	GW	5/6/2020	532.59	feet							
R103	GW	8/5/2020	526.24	feet							
R103	GW	11/23/2020	523.79	feet							
R103	GW	1/22/2021	526.38	feet							
R103	GW	5/27/2021	538.6	feet							
R103	GW	8/25/2021	526.86	feet							
R103	GW	8/11/2025	525.59	feet							
R111	GW	11/18/2016	527.9	feet							
R111	GW	2/15/2017	528.83	feet							
R111	GW	5/5/2017	530.46	feet							
R111	GW	8/3/2017	527.98	feet							
R111	GW	11/10/2017	527.36	feet							
R111	GW	1/31/2018	528.21	feet							
R111	GW	5/4/2018	528.97	feet							
R111	GW	7/9/2018	527.43	feet							
R111	GW	2/13/2019	532.28	feet							
R111	GW	5/20/2019	529.46	feet							
R111	GW	8/1/2019	527.75	feet							
R111	GW	11/1/2019	529.39	feet							
R111	GW	2/27/2020	530	feet							
R111	GW	5/6/2020	530.41	feet							
R111	GW	8/4/2020	528.68	feet							
R111	GW	11/23/2020	527.56	feet							
R111	GW	1/21/2021	528.69	feet							
R111	GW	5/28/2021	529.54	feet							
R111	GW	9/23/2021	529.26	feet							
R111	GW	11/10/2021	529.45	feet							
R111	GW	2/17/2022	529.87	feet							
R111	GW	6/2/2022	529.4	feet							
R111	GW	8/24/2022	528.2	feet							
R111	GW	11/9/2022	528.85	feet							
R111	GW	1/26/2023	528.34	feet							
R111	GW	4/10/2023	529.34	feet							
R111	GW	7/6/2023	528.47	feet							
R111	GW	10/26/2023	527.13	feet							
R111	GW	2/2/2024	529.66	feet							

GWSDAT

GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

Author: Wayne.W.Jones@Shell.com Version: 3.30

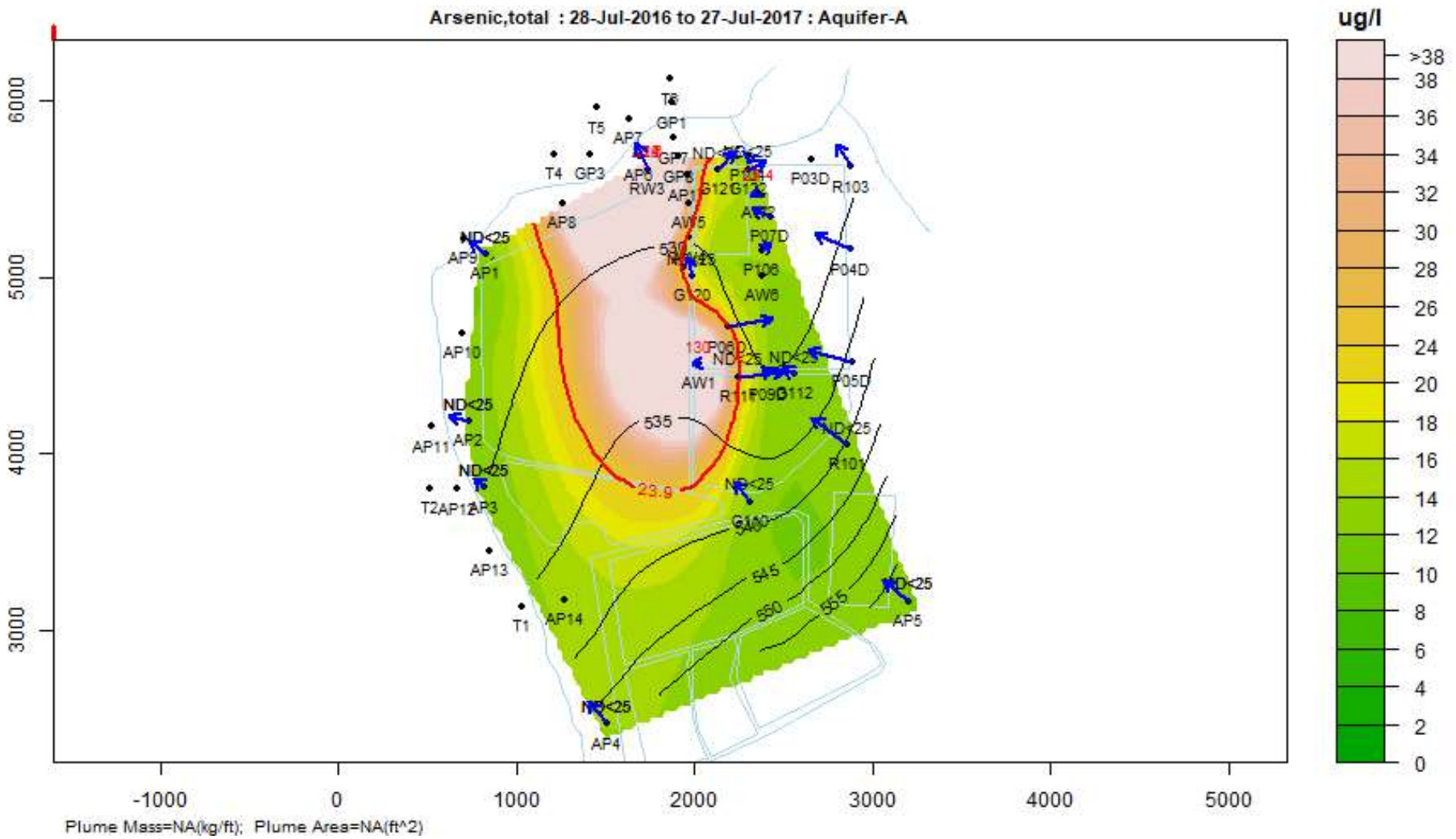
Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
R111	GW	5/8/2024	529.78	feet							
R111	GW	8/12/2024	527.71	feet							
R111	GW	11/11/2024	528.76	feet							
R111	GW	2/20/2025	528.96	feet							
R111	GW	5/21/2025	528.81	feet							
R111	GW	8/11/2025	527.87	feet							
R111	GW	11/12/2025	525.97	feet							
R111	GW	2/11/2026	527.59	feet							
R111	GW	4/22/2026	528.78	feet							
R111	GW	7/22/2026	529.92	feet							
RW3	GW	11/18/2016	527.72	feet							
RW3	GW	2/16/2017	528.22	feet							
RW3	GW	5/31/2017	531.22	feet							
RW3	GW	8/2/2017	526.12	feet							
RW3	GW	11/9/2017	527.03	feet							
RW3	GW	1/31/2018	527.18	feet							
RW3	GW	5/4/2018	529.9	feet							
RW3	GW	7/9/2018	528.84	feet							
RW3	GW	2/13/2019	532	feet							
RW3	GW	5/20/2019	531.91	feet							
RW3	GW	8/1/2019	530.32	feet							
RW3	GW	11/1/2019	540.33	feet							
RW3	GW	11/1/2019	529.92	feet							
RW3	GW	2/27/2020	532.16	feet							
RW3	GW	5/6/2020	532.65	feet							
RW3	GW	8/5/2020	528.49	feet							
RW3	GW	11/23/2020	526.82	feet							
RW3	GW	1/21/2021	528.25	feet							
RW3	GW	5/26/2021	531.51	feet							
RW3	GW	8/25/2021	529.46	feet							
RW3	GW	11/10/2021	530.82	feet							
RW3	GW	2/16/2022	529.64	feet							
RW3	GW	6/1/2022	530.3	feet							
RW3	GW	8/23/2022	529.72	feet							
RW3	GW	11/8/2022	528.71	feet							
RW3	GW	1/26/2023	530.2	feet							
RW3	GW	4/11/2023	530.76	feet							
RW3	GW	7/6/2023	528.51	feet							
RW3	GW	10/25/2023	527.71	feet							
RW3	GW	2/21/2024	530.4	feet							
RW3	GW	5/9/2024	531.63	feet							
RW3	GW	8/12/2024	528.19	feet							
RW3	GW	11/11/2024	528.05	feet							
RW3	GW	2/18/2025	529.94	feet							
RW3	GW	5/21/2025	530.23	feet							
RW3	GW	8/12/2025	528.93	feet							
RW3	GW	11/12/2025	526.02	feet							
RW3	GW	2/12/2026	526.65	feet							
RW3	GW	4/22/2026	529.52	feet							
RW3	GW	7/24/2026	529.74	feet							
T1	GW	5/9/2024	525.87	feet							
T1	GW	8/12/2024	521.15	feet							
T1	GW	11/12/2024	521.64	feet							
T1	GW	2/20/2025	521.81	feet							
T1	GW	5/22/2025	524.79	feet							
T1	GW	8/12/2025	521.02	feet							
T1	GW	11/13/2025	520.77	feet							
T1	GW	2/11/2026	520.9	feet							
T1	GW	4/21/2026	522.83	feet							
T1	GW	7/27/2026	522.2	feet							
T2	GW	5/9/2024	530.37	feet							
T2	GW	8/12/2024	523.87	feet							
T2	GW	11/13/2024	534.39	feet							
T2	GW	2/20/2025	523.97	feet							
T2	GW	5/22/2025	525.79	feet							
T2	GW	8/12/2025	523.9	feet							
T2	GW	11/13/2025	521.59	feet							
T2	GW	2/11/2026	522.31	feet							
T2	GW	4/21/2026	523.86	feet							
T2	GW	7/27/2026	524.93	feet							
T4	GW	5/14/2024	536.22	feet							
T4	GW	8/13/2024	530.28	feet							
T4	GW	11/13/2024	529.32	feet							
T4	GW	2/19/2025	530.53	feet							
T4	GW	5/27/2025	533.3	feet							
T4	GW	8/13/2025	530.69	feet							
T4	GW	11/13/2025	528.86	feet							
T4	GW	2/11/2026	528.55	feet							
T4	GW	4/21/2026	530.29	feet							
T4	GW	7/27/2026	532.19	feet							

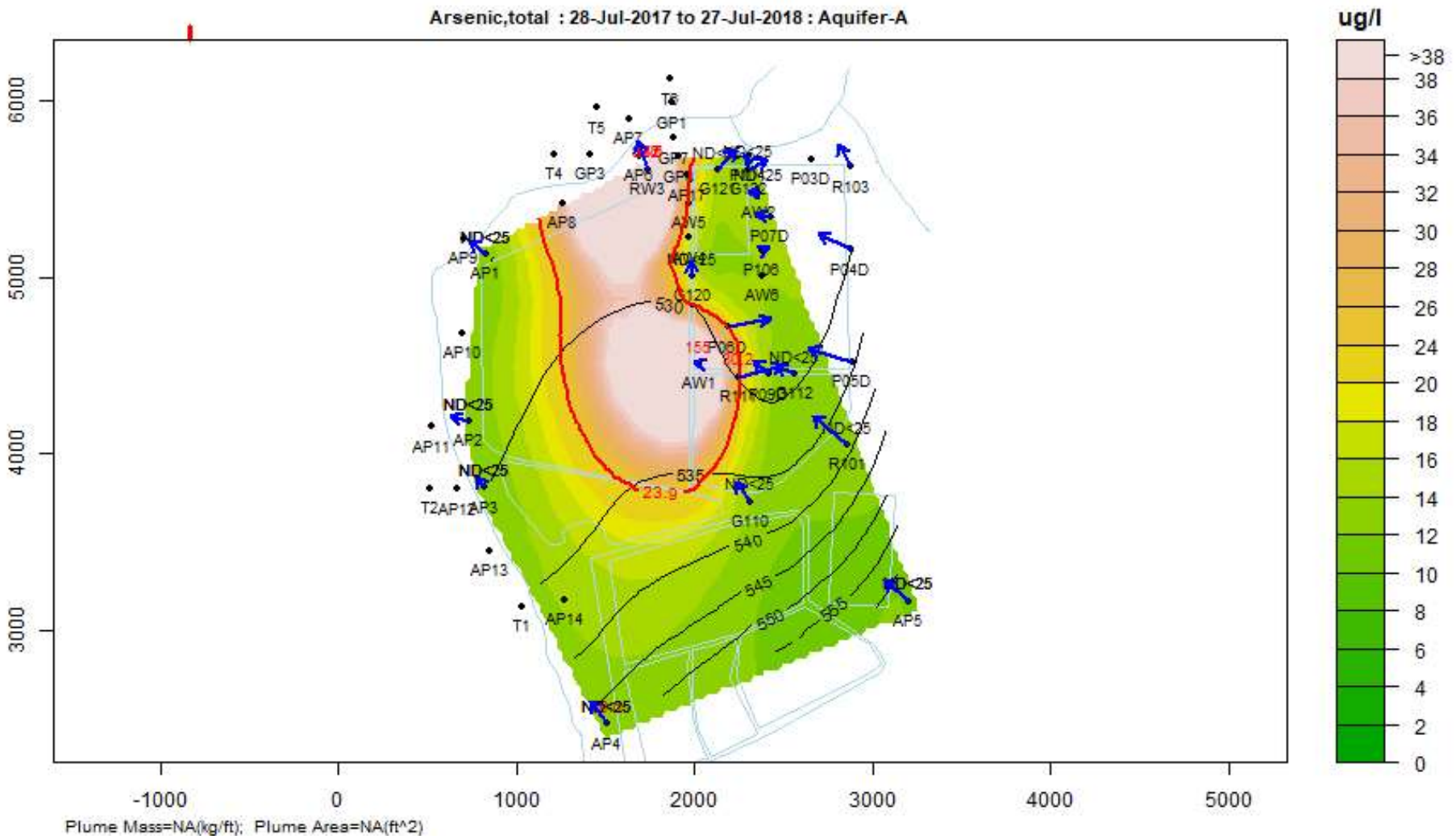
GWSDAT

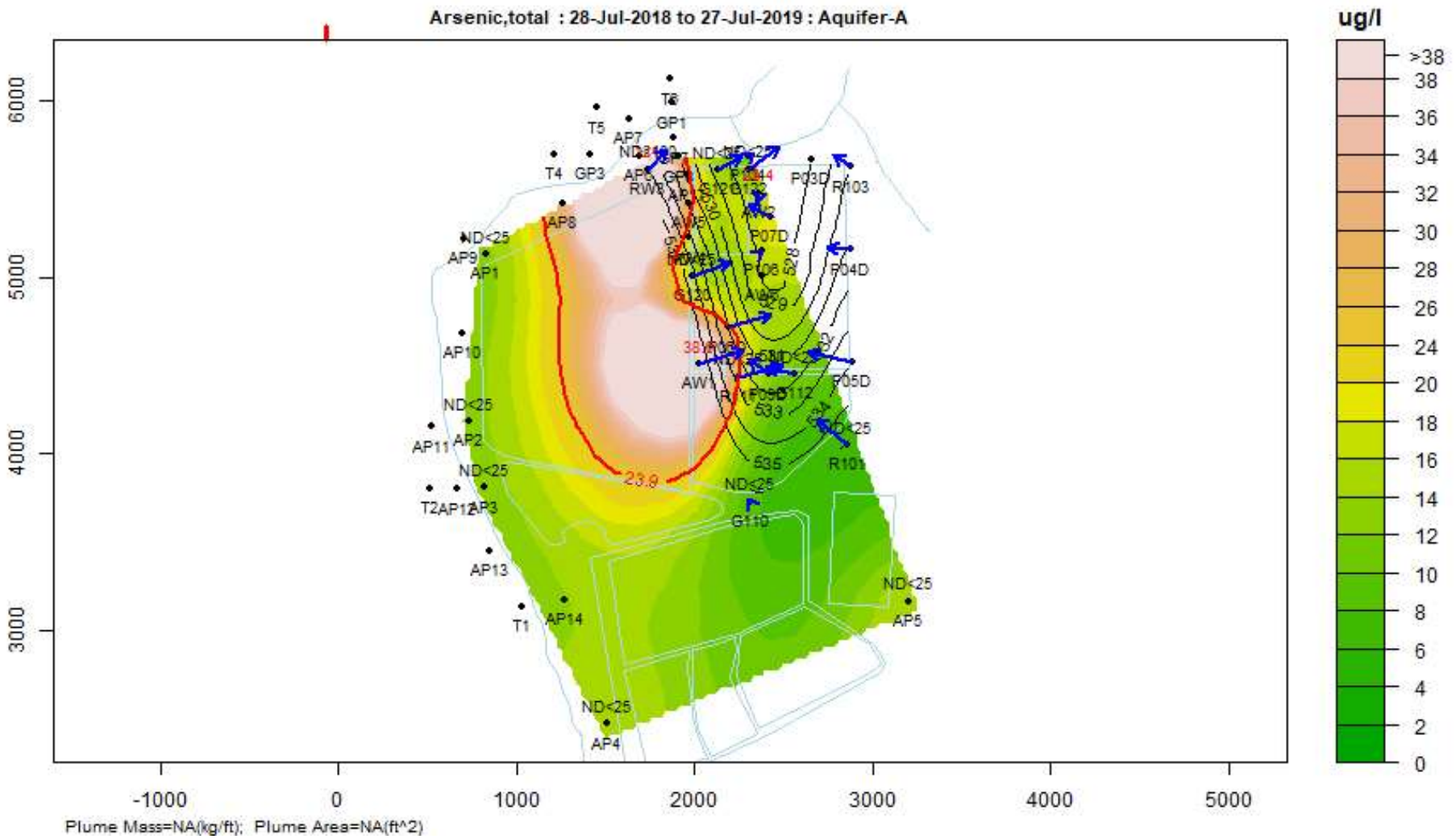
GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)

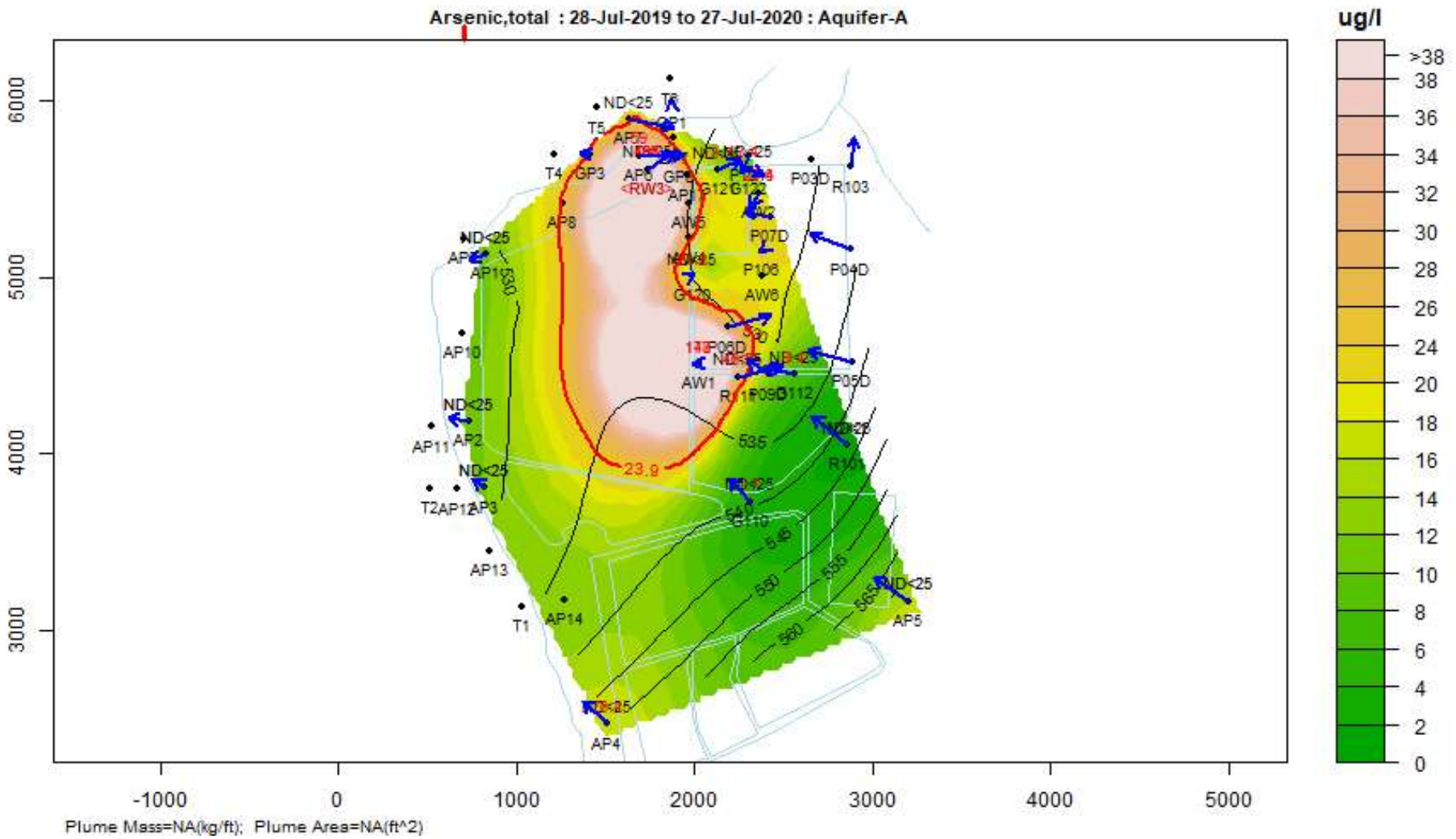
Author: Wayne.W.Jones@Shell.com Version: 3.30

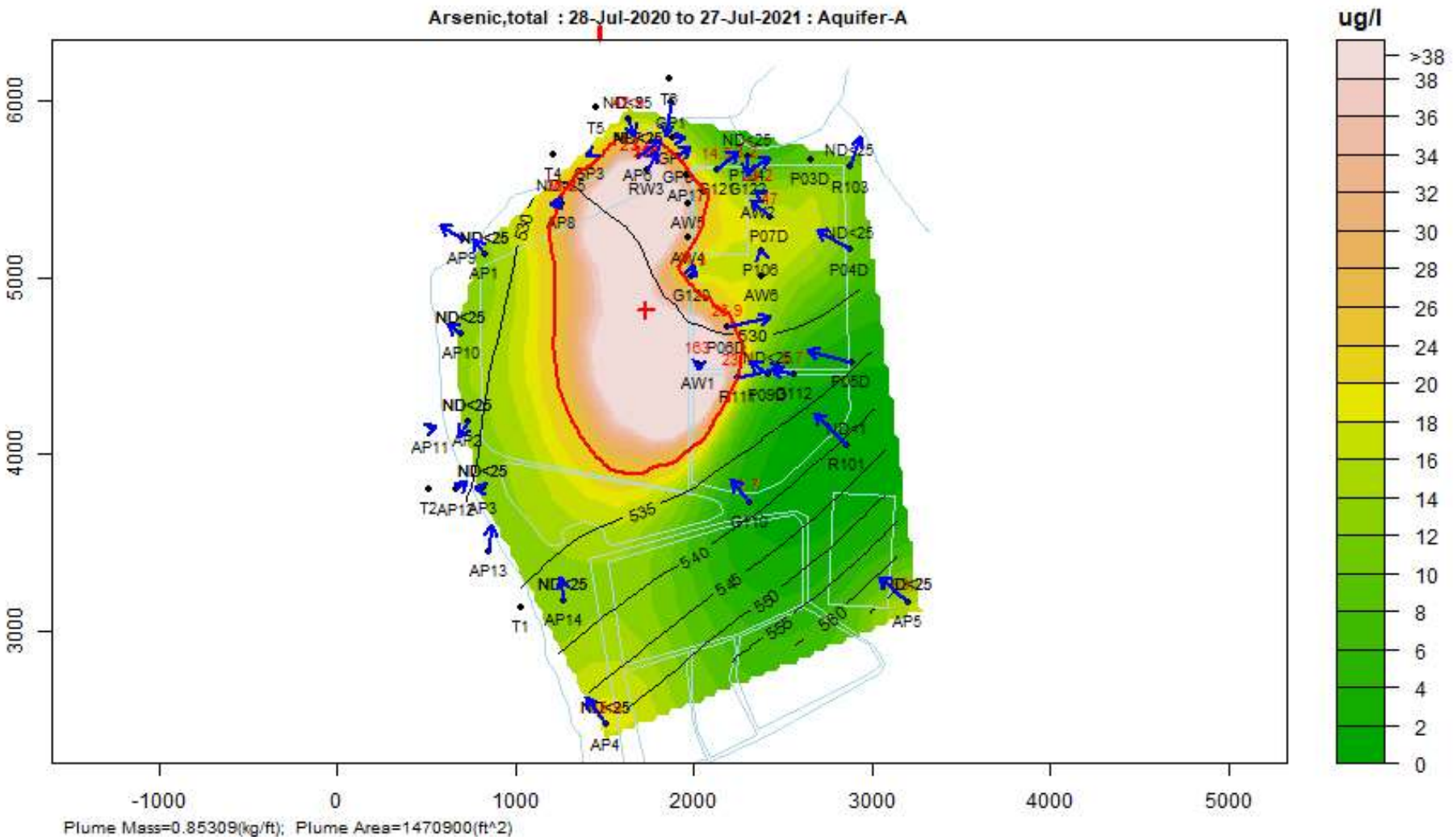
Historical Monitoring Data						Well Coordinates					GIS ShapeFiles
WellName	Constituent	SampleDate	Result	Units	Flags	WellName	XCoord	YCoord	Aquifer	CoordUnits	Filenames (*.shp)
T5	GW	5/14/2024	535.36	feet							
T5	GW	8/13/2024	529.96	feet							
T5	GW	11/13/2024	529.2	feet							
T5	GW	2/19/2025	532.67	feet							
T5	GW	5/27/2025	532.09	feet							
T5	GW	8/13/2025	530.34	feet							
T5	GW	11/13/2025	526.67	feet							
T5	GW	2/11/2026	526.15	feet							
T5	GW	4/21/2026	534.62	feet							
T5	GW	7/27/2026	532.61	feet							
T6	GW	5/14/2024	529.87	feet							
T6	GW	8/13/2024	528.44	feet							
T6	GW	11/13/2024	527.3	feet							
T6	GW	2/19/2025	528.52	feet							
T6	GW	5/27/2025	529.49	feet							
T6	GW	8/13/2025	530.17	feet							
T6	GW	11/13/2025	526.34	feet							
T6	GW	2/11/2026	525.18	feet							
T6	GW	4/21/2026	526.34	feet							
T6	GW	7/27/2026	529.61	feet							

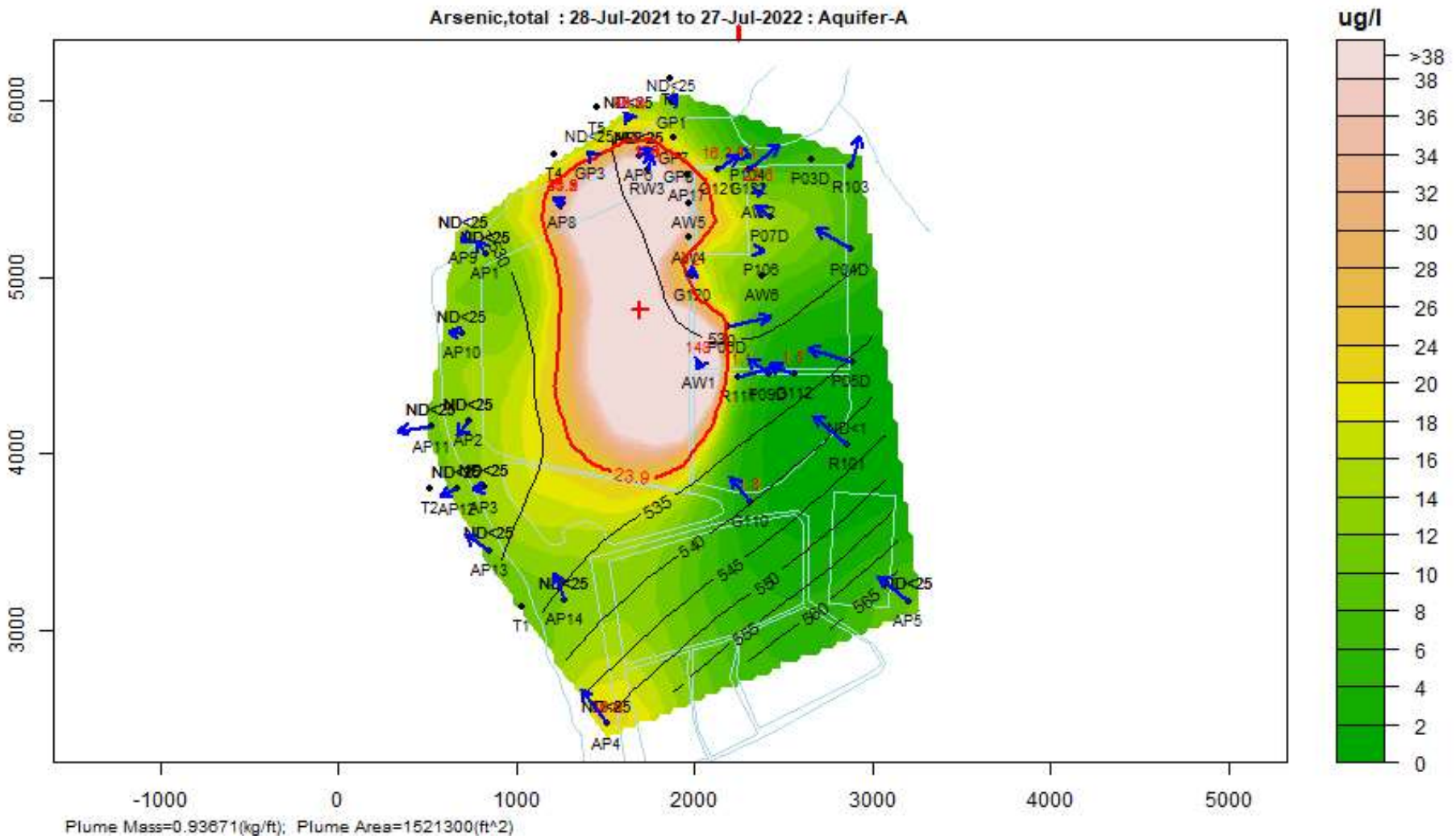

Arsenic,total : 28-Jul-2016 to 27-Jul-2017 : Aquifer-A
ug/l
>38
38
36
34
32
30
28
26
24
20
18
16
14
12
10
8
6
4
2
0
6000
5000
4000
3000
-1000
0
1000
2000
3000
4000
5000
Plume Mass=NA(kg/ft); Plume Area=NA(ft^2)
T6
T5
GP1
AP7
T4
GP3
AP6
GP7
RW3
AP8
AW5
P03D
R103
P07D
P04D
AW6
AP9
AP1
AP10
AW1
P05D
R101
AP11
AP2
T2
AP12
AP3
AP13
T1
AP14
AP5
AP4
ND<25
23.9
535
545
550
555


Arsenic,total : 28-Jul-2017 to 27-Jul-2018 : Aquifer-A
ug/l
>38
38
36
34
32
30
28
26
24
20
18
16
14
12
10
8
6
4
2
0
6000
5000
4000
3000
-1000
0
1000
2000
3000
4000
5000
T6
T5
GP1
AP7
T4
GP3
AP6
RW3
AP8
AW5
P07D
P04D
P03D
R103
AP9
AP1
G120
AW6
530
AP10
AW1
P05D
AP11
AP2
535
23.9
R101
T2
AP12
AP3
G110
540
AP13
545
550
555
T1
AP14
AP5
AP4
ND<25
155
Plume Mass=NA(kg/ft); Plume Area=NA(ft^2)

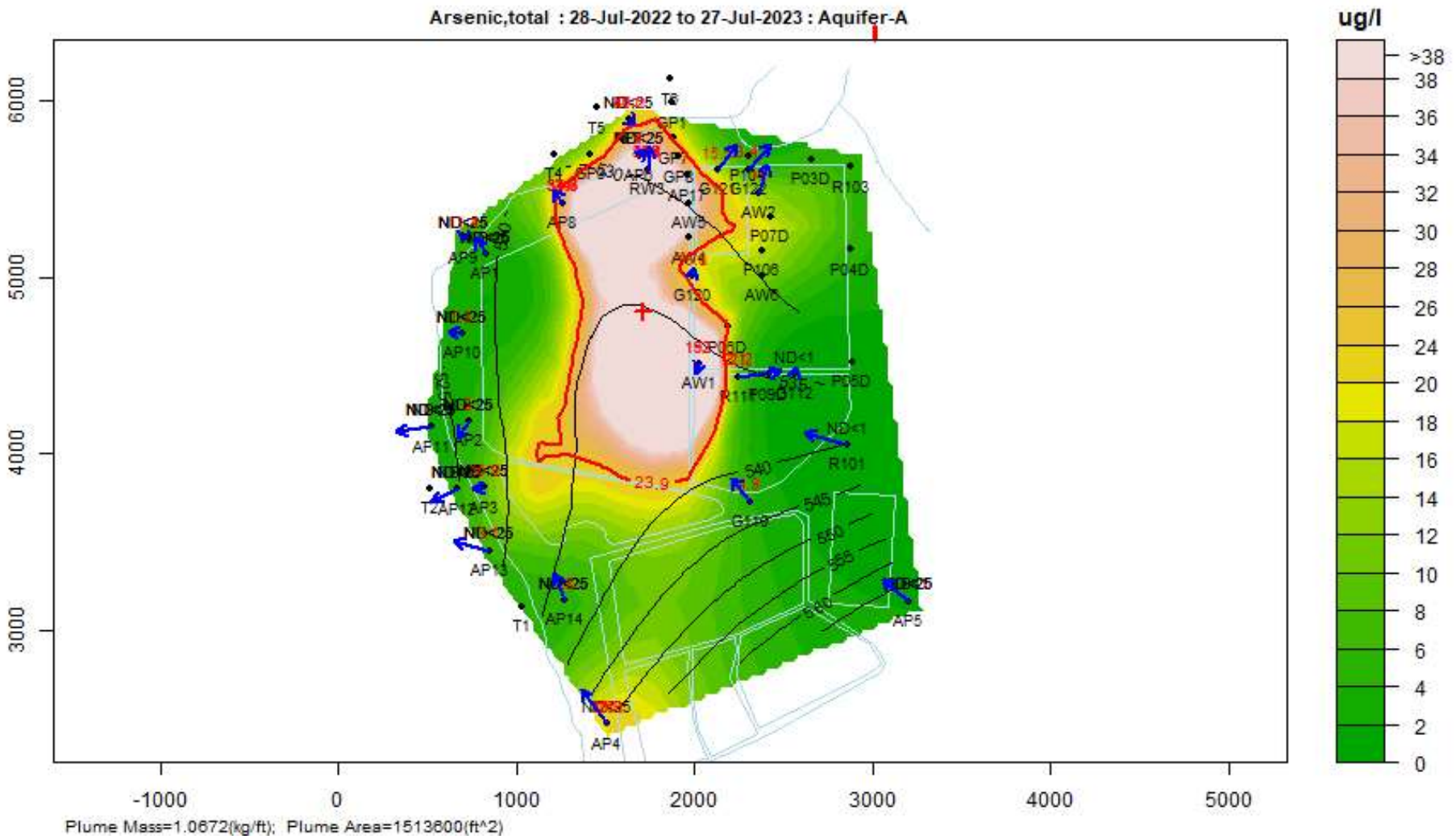

Arsenic,total : 28-Jul-2018 to 27-Jul-2019 : Aquifer-A
ug/l
>38
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
6000
5000
4000
3000
-1000
0
1000
2000
3000
4000
5000
T6
T5
GP1
AP7
T4
GP3
AP6
RW8
AP8
ND<25
AP9
AP1
AP10
ND<25
AP11
AP2
ND<25
T2
AP12
AP3
AP13
T1
AP14
ND<25
AP4
ND<25
AP5
P03D
R103
P07D
P04D
P05D
R101
G110
AW1
23.9
Plume Mass=NA(kg/ft); Plume Area=NA(ft^2)

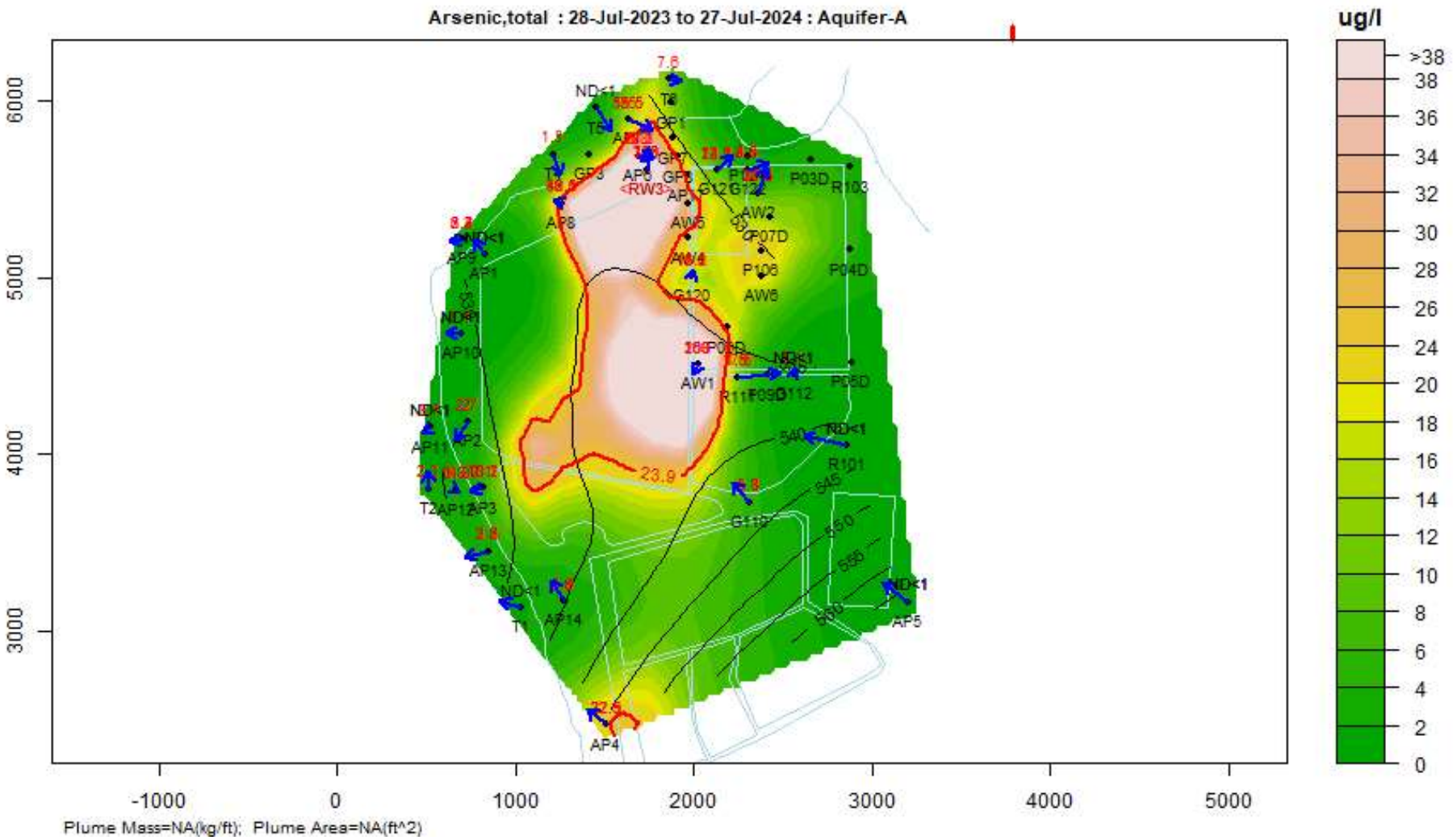

Arsenic,total : 28-Jul-2019 to 27-Jul-2020 : Aquifer-A
ug/l
>38
38
36
34
32
30
28
26
24
20
18
16
14
12
10
8
6
4
2
0
6000
5000
4000
3000
-1000
0
1000
2000
3000
4000
5000
ND<25
AP1
AP2
AP3
AP4
AP5
AP6
AP8
AP10
AP11
AP12
AP13
AP14
T1
T2
T4
T5
T6
GP1
GP3
AW1
AW5
AW6
P03D
P04D
P05D
P06D
P07D
P08
P09D
R101
R103
23.9
530
535
540
545
550
555
560
565
Plume Mass=NA(kg/ft); Plume Area=NA(ft^2)

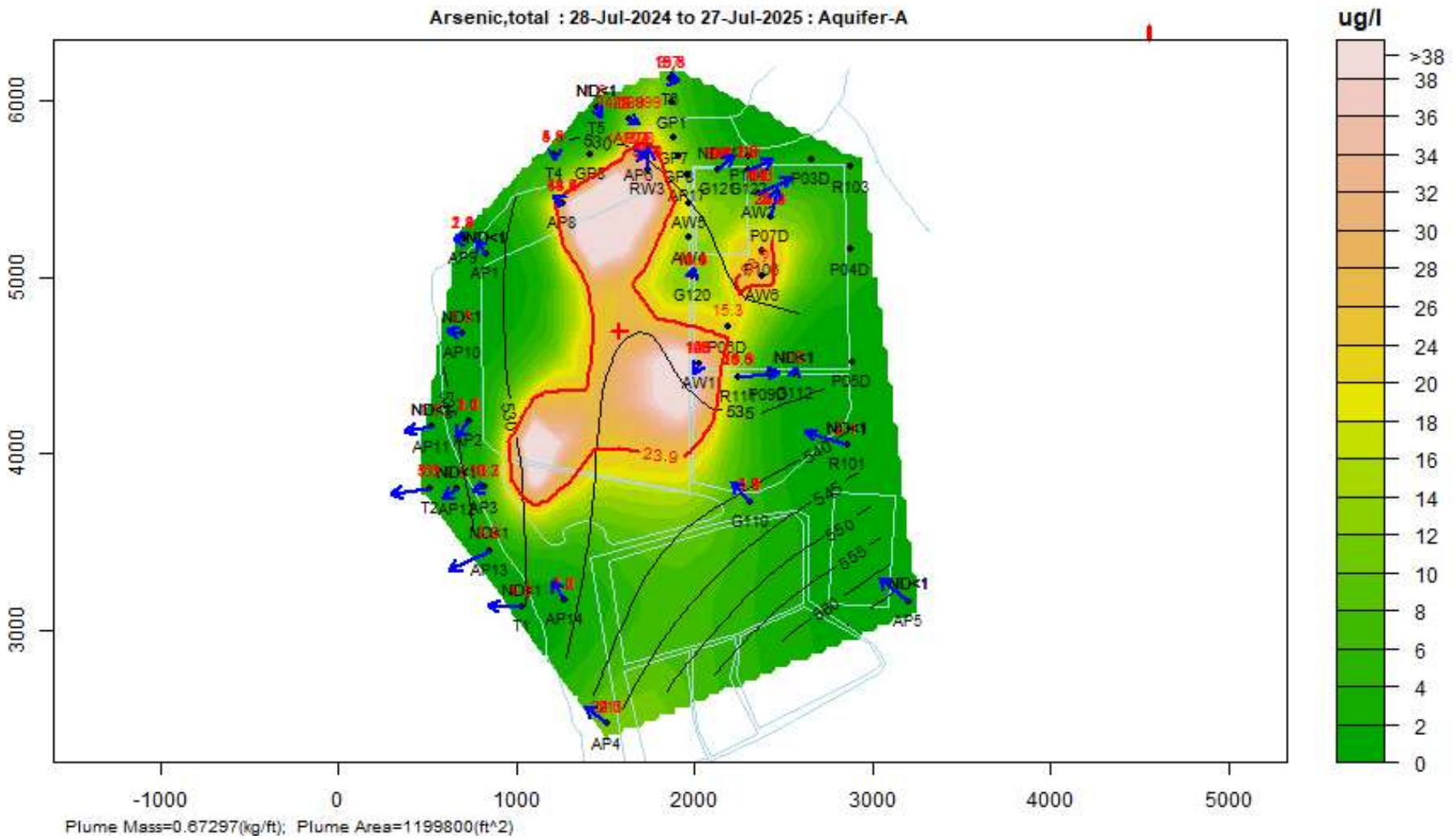

Arsenic,total : 28-Jul-2020 to 27-Jul-2021 : Aquifer-A
ug/l
>38
38
36
34
32
30
28
26
24
20
18
16
14
12
10
8
6
4
2
0
6000
5000
4000
3000
-1000
0
1000
2000
3000
4000
5000
530
535
540
545
550
555
560
ND<25
AP1
AP2
AP3
AP4
AP5
AP6
AP8
AP9
AP10
AP11
AP12
AP13
AP14
T1
T2
T4
T5
T6
RW3
AW1
AW2
AW4
AW5
AW6
P03D
P04D
P05D
P06D
P07D
P106
R101
R103
R111
R112
G120
Plume Mass=0.85309(kg/ft); Plume Area=1470900(ft^2)

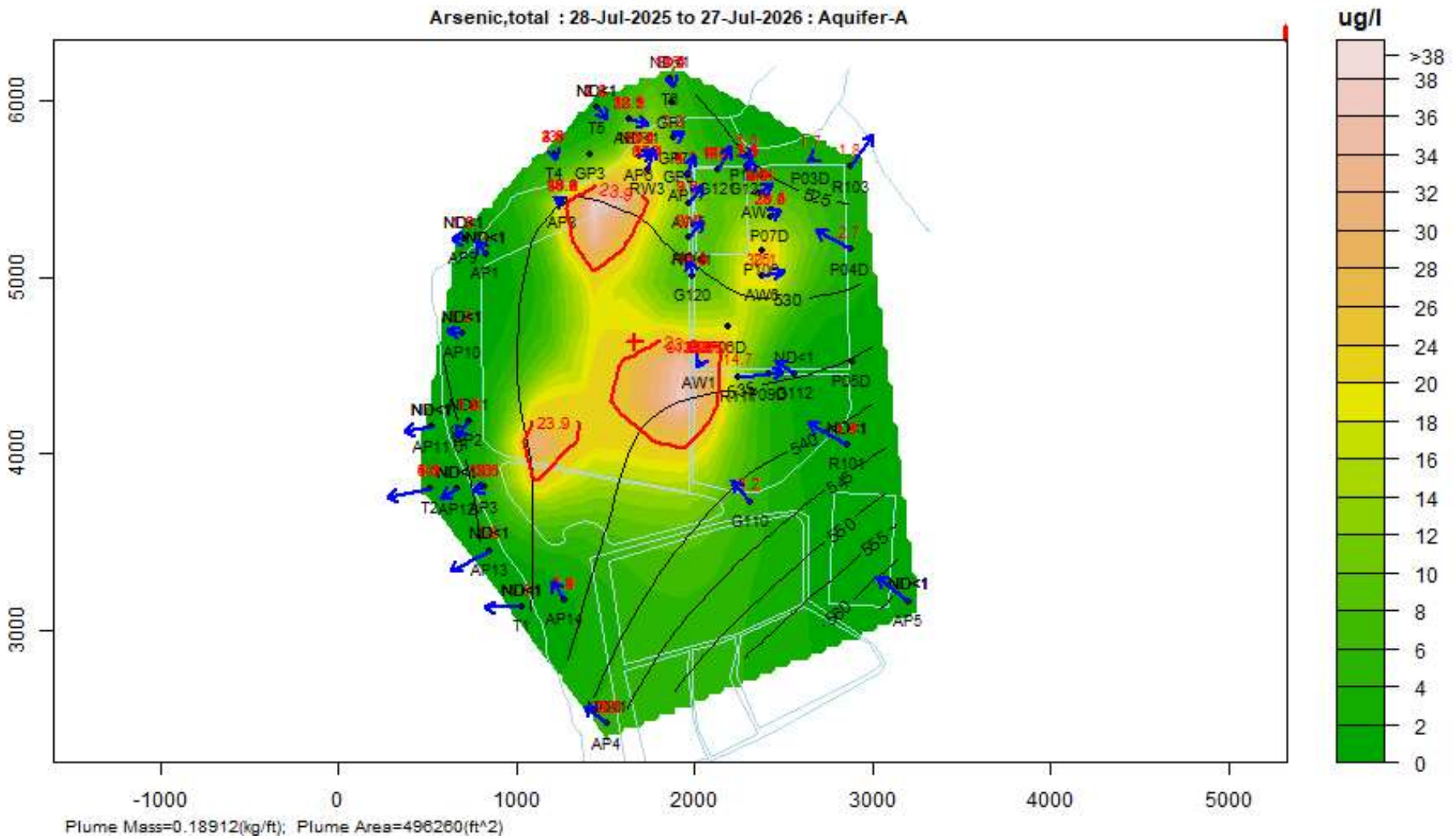


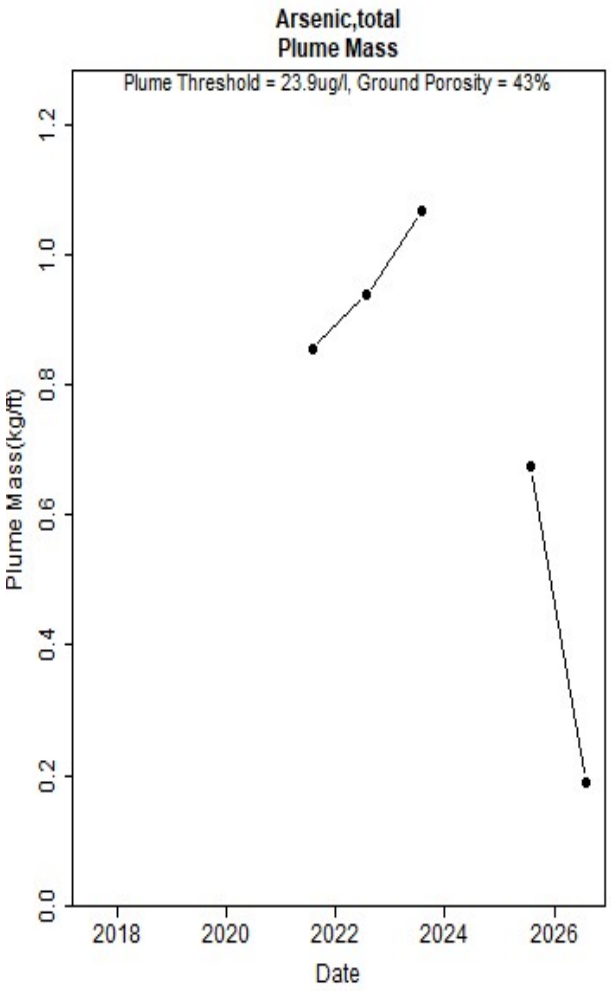
Plume Mass=0.93671(kg/ft); Plume Area=1521300(ft^2)

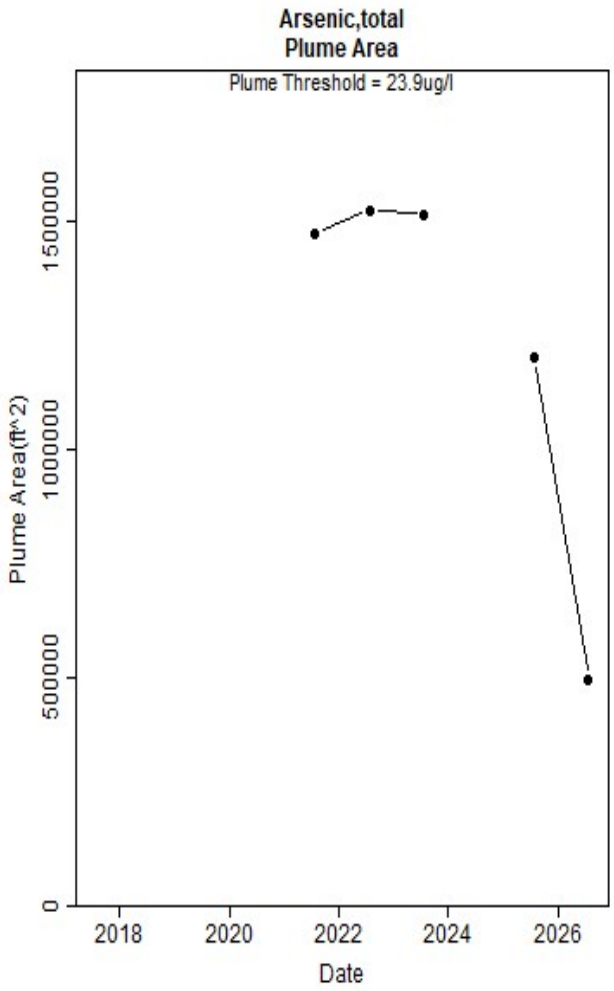

Arsenic,total : 28-Jul-2022 to 27-Jul-2023 : Aquifer-A
ug/l
>38
38
36
34
32
30
28
26
24
20
18
16
14
12
10
8
6
4
2
0
6000
5000
4000
3000
-1000
0
1000
2000
3000
4000
5000
23.9
Plume Mass=1.0672(kg/ft); Plume Area=1513600(ft^2)

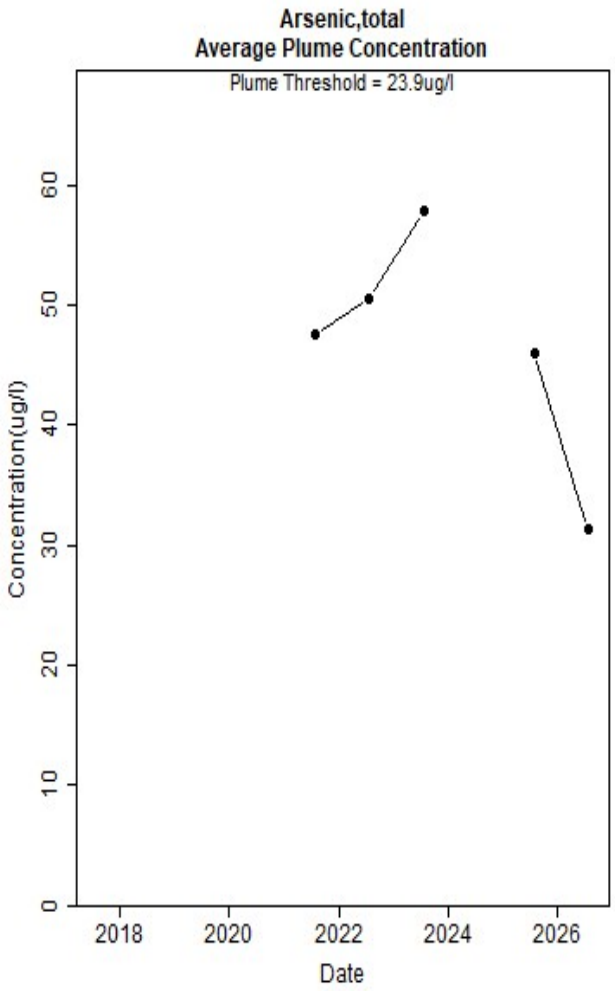

Arsenic,total : 28-Jul-2023 to 27-Jul-2024 : Aquifer-A
ug/l
>38
38
36
34
32
30
28
26
24
20
18
16
14
12
10
8
6
4
2
0
6000
5000
4000
3000
-1000
0
1000
2000
3000
4000
5000
Plume Mass=NA(kg/ft); Plume Area=NA(ft^2)
AP1
AP2
AP3
AP4
AP5
AP6
AP8
AP9
AP10
AP11
AP12
AP13
AP14
AW1
AW2
AW4
AW5
AW6
G120
G121
G122
GP1
GP3
GP7
P03D
P04D
P05D
P07D
P106
R101
R103
R111
R112
T2
T4
T5
T6
23.9
32.5
540
545
550
555
560
565
ND<1


Arsenic,total : 28-Jul-2024 to 27-Jul-2025 : Aquifer-A
ug/l
>38
38
36
34
32
30
28
26
24
20
18
16
14
12
10
8
6
4
2
0
6000
5000
4000
3000
-1000
0
1000
2000
3000
4000
5000
AP4
AP5
AP6
AP8
AP10
AP11
AP12
AP13
AP14
AW1
AW5
AW6
G120
P03D
P04D
P05D
P07D
R101
R103
RW3
T2
T4
T5
530
535
540
545
550
555
560
23.9
15.3
Plume Mass=0.67297(kg/ft); Plume Area=1199800(ft^2)


Arsenic,total : 28-Jul-2025 to 27-Jul-2026 : Aquifer-A
ug/l
>38
38
36
34
32
30
28
26
24
20
18
16
14
12
10
8
6
4
2
0
6000
5000
4000
3000
-1000
0
1000
2000
3000
4000
5000
Plume Mass=0.18912(kg/ft); Plume Area=496260(ft^2)


Arsenic,total
Plume Mass
Plume Threshold = 23.9ug/l, Ground Porosity = 43%
Plume Mass(kg/ft)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
2018
2020
2022
2024
2026
Date


Arsenic,total
Plume Area
Plume Threshold = 23.9ug/l
Plume Area(ft^2)
0
500000
1000000
1500000
2018
2020
2022
2024
2026
Date


Arsenic,total
Average Plume Concentration
Plume Threshold = 23.9ug/l
Concentration(ug/l)
0
10
20
30
40
50
60
2018
2020
2022
2024
2026
Date

APPENDIX G:
GWSDAT DOCUMENTS

Appendix G-1: Supporting GWSDAT Methodology Reference
Statistical Basis of the GWSDAT Modeling Framework

Document Title
A Software Tool for the Spatiotemporal Analysis and Reporting of Groundwater Monitoring Data

Citation
Jones, W.R., Spence, M.J., Bowman, A.W., Evers, L., and Molinari, D.A. (2014). *A Software Tool for the Spatiotemporal Analysis and Reporting of Groundwater Monitoring Data*. *Environmental Modelling & Software*, 55, 242-249.

Purpose of Inclusion
This document is provided as supporting technical literature describing the statistical framework implemented within GWSDAT.

The publication discusses:

- Spatiotemporal groundwater data analysis;
- Groundwater concentration surface generation;
- Trend analysis;
- Spatial and temporal smoothing;
- Groundwater plume visualization;
- Data treatment methods used in groundwater monitoring evaluations.

The methodology described in this publication provides the technical basis for generation of concentration surfaces and plume interpretations used in this Addendum.



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A software tool for the spatiotemporal analysis and reporting of groundwater monitoring data

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ABSTRACT

The GroundWater Spatiotemporal Data Analysis Tool (GWSDAT) is a user friendly, open source, decision support tool for the analysis and reporting of groundwater monitoring data. Uniquely, GWSDAT applies a spatiotemporal model smoother for a more coherent and smooth interpretation of the interaction in spatial and time-series components of groundwater solute concentrations. Data entry is via a standardised Microsoft Excel input template whilst the underlying statistical modelling and graphical output are generated using the open source statistical program R. This paper describes in detail the various plotting options available and how the graphical user interface can be used for rapid, rigorous and interactive trend analysis with facilitated report generation. GWSDAT has been used extensively in the assessment of soil and groundwater conditions at Shell's downstream assets and the discussion section describes the benefits of its applied use. Finally, some consideration is given to possible future developments.

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Software availability

Software name: GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)
Developer: Wayne R. Jones
Contact address: Shell Global Solutions (UK) (wayne.w.jones@shell.com)
Year first official release: 2013
Hardware requirements: Standard PC
System requirements: Microsoft Windows (XP or later)
Software requirements: Microsoft Office (Excel, Word and PowerPoint) and R (www.r-project.org)
Program Size: 13 MB
Availability: www.claire.co.uk/GWSDAT
License: Free under a GNU General Public License (www.gnu.org) agreement.
Documentation and support for users: User manual, example data sets, FAQ document, presentations and posters.

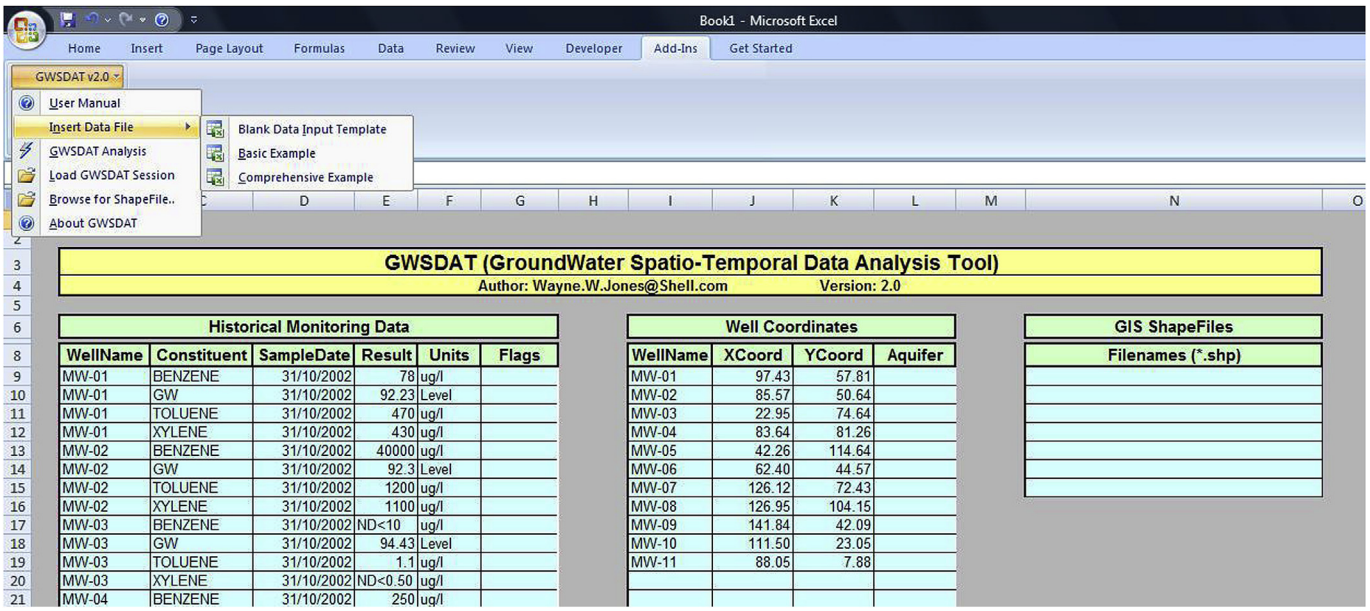
1. Introduction

1.1. Background

Groundwater is water located beneath the Earth's surface in soil pore spaces and in the fractures of rock formations. Environmental monitoring of groundwater is routinely conducted in areas where the risk of contamination is high and for protecting human health and the environment following an accidental release of hazardous constituents. Groundwater monitoring strategies are designed to establish the current status and assess trends in environmental parameters, and to enable an estimate of the risks to human health and the environment. It involves installing a network of monitoring wells to enable access to the water table across the site (Barcelona et al., 1985). Samples of groundwater are periodically collected from these wells and sent to an accredited laboratory for chemical analysis. The resulting spatiotemporal data set has to be reviewed,

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WellName	Constituent	SampleDate	Result	Units	Flags
MW-01	BENZENE	31/10/2002	78	ug/l	
MW-01	GW	31/10/2002	92.23	Level	
MW-01	TOLUENE	31/10/2002	470	ug/l	
MW-01	XYLENE	31/10/2002	430	ug/l	
MW-02	BENZENE	31/10/2002	40000	ug/l	
MW-02	GW	31/10/2002	92.3	Level	
MW-02	TOLUENE	31/10/2002	1200	ug/l	
MW-02	XYLENE	31/10/2002	1100	ug/l	
MW-03	BENZENE	31/10/2002	ND<10	ug/l	
MW-03	GW	31/10/2002	94.43	Level	
MW-03	TOLUENE	31/10/2002	1.1	ug/l	
MW-03	XYLENE	31/10/2002	ND<0.50	ug/l	
MW-04	BENZENE	31/10/2002	250	ug/l	

WellName	XCoord	YCoord	Aquifer
MW-01	97.43	57.81	
MW-02	85.57	50.64	
MW-03	22.95	74.64	
MW-04	83.64	81.26	
MW-05	42.26	114.64	
MW-06	62.40	44.57	
MW-07	126.12	72.43	
MW-08	126.95	104.15	
MW-09	141.84	42.09	
MW-10	111.50	23.05	
MW-11	88.05	7.88	

Fig. 1. GWSDAT example data input template. The *Historical Monitoring Data* table captures the concentration data, groundwater levels and, if present, NAPL thickness. The *Well Coordinates Table* stores the location of the monitoring well. The GWSDAT add-in menu is displayed at the top left.

analysed statistically, interpreted, and the results presented to environmental regulators in a clear and understandable manner.

The most basic method of level and trend evaluation involves investigating the time-series of groundwater constituent concentrations independently on a well by well basis. The more sophisticated spatial methods, typically, involve fitting a concentration trend surface (i.e. Kriging) to evaluate spatial pattern and trend (Cameron and Hunter, 2002; Gaus et al., 2003). However, although spatiotemporal data lies at the heart of current research in statistical methods (see Cressie and Wikle (2011)), the most common practice is to independently apply spatial modelling techniques to separate monitoring events (e.g. Ricker (2008)) or apply a single spatial model to a data set which has been consolidated over a time period (e.g. Aziz et al. (2003)). The joint modelling of both spatial and time elements in a single spatiotemporal modelling framework leads to a more coherent interpretation of site groundwater characteristics (Evers et al., in press).

Whilst there is a range of freely available groundwater data analysis applications, the most sophisticated tend to be designed for large scale long term groundwater monitoring networks (Aziz et al., 2003; Cameron, 2004). These have a relatively large initial data warehousing setup burden, which may be viewed as a barrier to the more widespread use of advanced groundwater monitoring techniques to smaller more short term monitoring programmes. Similarly, whilst GIS applications (e.g. ArcGIS) have excellent visualisation tools for geographical interpretation they also have a high initial data setup cost, operator competence requirements, and perhaps surprisingly, only a limited number of geostatistical modelling techniques available.

2. Software design and aims

2.1. Development aims

To a large extent, GWSDAT has been developed to address the barriers discussed in Section 1.1. However, its most important aim is to provide a simple to use, but statistically powerful decision support tool to environmental engineers and practitioners who routinely report on the status of numerous groundwater monitoring sites. Such an application needs to be easy to setup yet powerful in its ability to objectively analyse and rapidly report on a groundwater monitoring site's characteristics.

In common with many other environmental applications, it was recognised that there would be a benefit in providing the software in an open and transparent manner because policy makers and environmental regulators generally prefer code and techniques which are fully transparent and supported by sound science (Carslaw and Ropkins, 2012).

2.2. Software architecture

GWSDAT has been designed to integrate with Microsoft Excel, a software routinely used by environmental engineers for storing and analysing environmental (e.g. soil and groundwater) data. The user entry point to GWSDAT is a custom built Excel Add-in menu (see top left of Fig. 1).

The statistical engine used to perform geostatistical modelling and display graphical output is the open source statistical programming language R (R Development Core Team, 2012). The R project is used across a wide range of disciplines and has been adopted with eagerness by the environmental sciences community (Carslaw and Ropkins, 2012). Members of the R community contribute statistical routines and functionality to this collaborative project by means of an open standardised package structure, which can be downloaded and installed from http://cran.r-project.org/web/packages/. GWSDAT makes use of several of these packages, which are all individually referenced in this article. A Graphical User Interface (GUI) is provided via the R packages *rpanel* (Bowman et al., 2007) and *tkrplot* (Tierney, 2011) which obviates the need for training GWSDAT users in the R programming language.

3. Data input

3.1. Background

Before describing the application of GWSDAT in more detail it is necessary to give a brief explanation of the nature of groundwater monitoring data. In general, routine sampling of a monitoring well involves measuring the groundwater elevation and taking a sample of the groundwater which is subsequently sent for laboratory

analysis to ascertain the dissolved concentration of a prescribed set of solutes (e.g. Toluene, Benzene). If the concentration is deemed lower than that which could be detected using the method employed by the laboratory then it is classified as a 'non-detect'. In such circumstances, the laboratory quotes the detection threshold concentration value below which the solute could not be detected.

An additional important consideration for petroleum hydrocarbon applications is the presence of a layer of Non-Aqueous Phase Liquid (NAPL), such as gasoline or diesel, on the surface of the water table. This circumstance often arises when the amount of contamination is sufficient to exceed the natural solute level of groundwater. Samples containing NAPL are not often sent for a full chemical analysis (unless performing NAPL forensics) because the levels of solute concentrations are too high for the traditional laboratory methods, which are geared towards lower concentrations. Hence, NAPL data poses the challenge of how to handle unspecified high solute concentration values and identify trends in NAPL layer thickness.

3.2. Input data format

Groundwater monitoring data is entered into GWSDAT by means of a simple standardised Microsoft Excel input sheet (Fig. 1). There is no requirement to gather any data that would not have already been recorded in a standard groundwater monitoring data set. The following summarises the GWSDAT data input format but the reader is referred to the user manual for a full and detailed explanation of GWSDAT data input specification.

Each row of the *Historical Monitoring Data* table (left hand table in Fig. 1) corresponds to a unique combination of well id, sampling date, aquifer zone, solute name and concentration. Non-detect solute data is entered using the notation 'ND < X', where X represents the laboratory reported detection threshold concentration. If present, NAPL thickness data is also entered in this table using the constituent name 'NAPL' with an appropriate unit, e.g. metres, mm. Optionally, groundwater level data is entered here (using the constituent name 'GW') as an elevation above a common datum, e.g. metres or feet above sea level or some other common reference height.

The *Well Coordinates* table (middle table in Fig. 1) stores the coordinates of the groundwater monitoring wells. Any arbitrary coordinate system with an aspect ratio of 1 can be used, i.e. a unit in the x-coordinate is the same distance as a unit in the y-coordinate.

The third optional *GIS Shapefiles* table can be populated with file locations of GIS shapefiles (Esri, 1998) for use as basemaps or site plans. Two GWSDAT input data sets of varying complexity (basic and comprehensive) are included with the software to serve as both an example of the GWSDAT data input format and provide a quick way of getting started.

3.3. Data processing

On initiation of a GWSDAT analysis, the user is asked to select from a variety of data processing options including the handling of non-detects and, if present, NAPL. In accordance with the common convention, the default option is to substitute the non-detect solute concentration data with half its detection limit. Note, however, that this can mask trends in the data and lead to erroneous estimates of summary statistics in cases with a high proportion of non-detect results (Helsel, 2004). This issue is discussed in more detail in Section 6. If NAPL is present the user is prompted to substitute NAPL data points with site data set maximum observed solute concentrations. This option is to provide a more realistic picture of the area of impacted groundwater (high concentrations) in the event that NAPL in wells prevents direct measurement of solute concentrations as discussed in Section 3.1. The data processing step is concluded with a series of data validation procedures to check for common data input errors.

4. Graphical user interface

4.1. Introduction

In the interests of user-friendliness and productivity the results of a GWSDAT analysis are interrogated and interpreted through the GWSDAT user interface (see Fig. 2). It includes a wide range of different plots for the visual inspection of groundwater monitoring data. The objective assessment of trend is achieved by the application of statistical smoothing models described in Appendix A. The following sections describe the individual components of the GWSDAT user interface in more detail.

4.2. Well trend plot

The well trend plot (see Fig. 3) enables the user to investigate time series trends of solute concentrations and groundwater level in individual wells. Sampled concentration values are displayed using orange circles for non-detect data and black solid circles for detectable data. The user can choose to overlay a linear (or log-linear) regression model fit and use the non-parametric Mann–Kendall approach to trend detection via the R package *Kendall* (McLeod, 2011). Although this approach is widely used in environmental sciences (e.g. Hirsch et al. (1982); Helsel and Hirsch (2002)) its major weakness is that it can only detect monotonic trend and in response GWSDAT adopts an additional methodology. The solid blue line in Fig. 3 displays the estimate (together with a 95% confidence interval) of the mean trend level according to a local linear regression model fit described in Appendix A.1. This non-parametric model smoothing technique is not constrained to be monotonic and can change direction as is clearly illustrated in the figure. The trend between two points in time is, informally speaking, deemed statistically significant if the associated confidence intervals do not overlap (Fig. 4).

For evaluating the impact of changing (perhaps seasonal) water table conditions groundwater elevation data can, optionally, be overlaid in this plot. The time series of observed groundwater level is represented by open circles joined by a black solid line see and the values read off from the right hand axis (see Fig. 3). If present, NAPL thickness data can also be displayed in a similar manner.

4.3. Trend and threshold indicator matrix

The trend and threshold indicator matrix is a summary of the level and time-series trend in solute concentrations at a particular time-slice of the monitoring period. The rows correspond to each monitoring well and the columns correspond to the different solutes. The date of the time-slice is displayed at the top of the plot and also indicated by a vertical grey line in the well trend plot (see Fig. 3). The user can select between the options of displaying 'Trend', 'Threshold – Absolute' or 'Threshold Statistical'.

When 'Trend' is selected the cells are coloured to indicate the strength and direction of the current trend as assessed by the instantaneous gradient of the well trend smoother (see Section 4.2) at the current time-slice. White cells indicate a generally flat trend whilst reds and greens indicate strong upward and downward trends, respectively. In the event that the trend cannot be calculated (e.g. no data) then the corresponding cell is coloured grey. Blue cells represent non-detect data.

When 'Threshold Absolute' is selected the cells are coloured according to whether the observed current solute concentrations

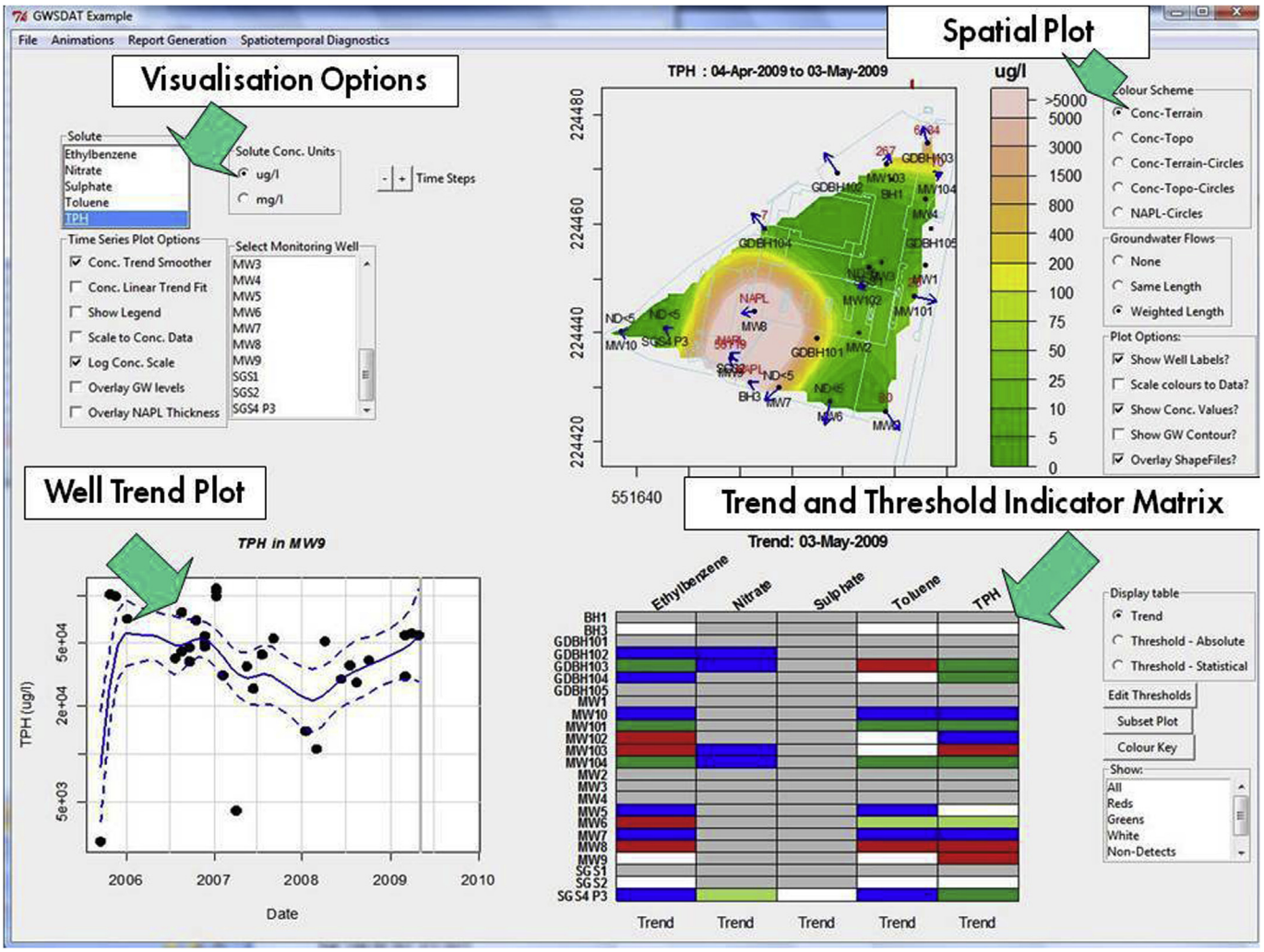


Fig. 2. The GWSDAT graphical user interface is a stand-alone, point and click, Graphical User Interface (GUI) which enables the user to perform a rapid, rigorous and interactive analysis of trends in the time-series, spatial and spatiotemporal components of the data.

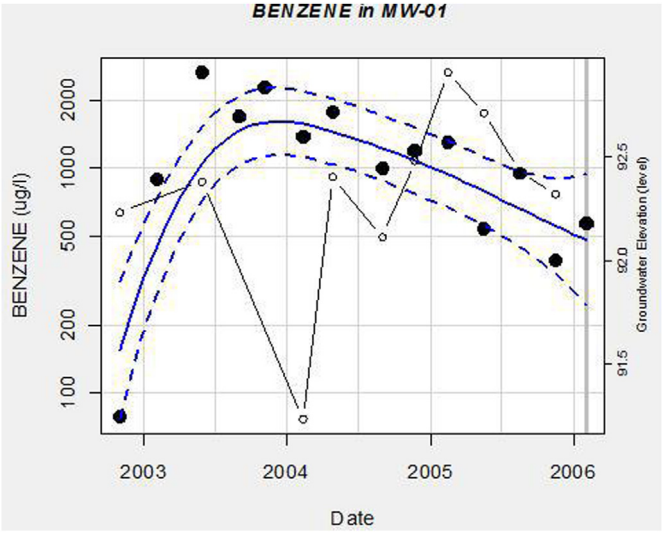


Fig. 3. Example of the GWSDAT well trend plot. The black solid circles represent observed concentration values. Overlaid in the solid blue line is a local linear regression model fit with 95% confidence interval, shown as dashed blue lines. The open circles joined by solid line represent groundwater elevation measurements which are read off from the right hand axis.

are below a user specified threshold value, such as a risk-based remedial objective. The cells are coloured red if the current solute concentration is above the threshold value and green otherwise. 'Threshold Statistical' is similar but only colours the cell green if the upper 95% confidence interval of the well trend smoother (see Section 4.2) is below the threshold value.

4.4. Spatial plot

The GWSDAT spatial plot (see Fig. 5) is for the analysis of spatial trends in solute concentrations, groundwater flow and, if present, NAPL thickness. It displays the locations of the named monitoring wells together with sample solute concentration values collected within the date interval displayed at the top of the graphic. If desired, the major site features (e.g. roads, fuel tanks), supplied in a GIS shapefile format, can be overlaid on the spatial plot as light blue lines. As the user increments forwards and backwards through the monitoring history, using the '+' and '−' *Time Steps* buttons, the spatial plot is updated.

The estimated groundwater flow direction and magnitude is depicted with blue arrows calculated using the method described in Appendix A.2. Additionally, it is possible to overlay a contour plot of groundwater elevation. This is achieved by drawing isopleths through a fitted local polynomial regression model fit implemented

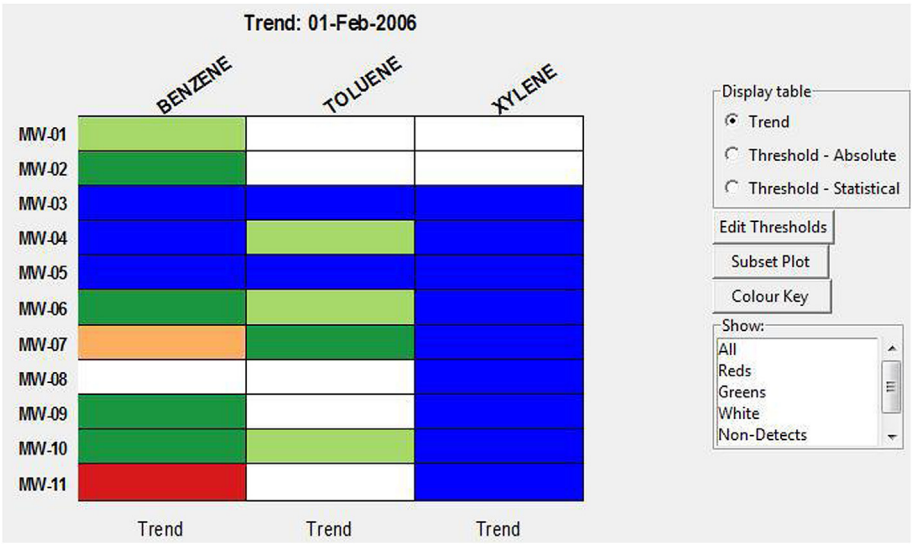


Fig. 4. Example of the GWSDAT trend and threshold indicator matrix. The rows represent monitoring wells, and columns represent the different solutes. Each cell is colour coded to represent increasing (reds), stable (white) or decreasing (greens) trends in solute concentrations. Blue cells represent non-detect data and if there is insufficient data the cell is coloured grey.

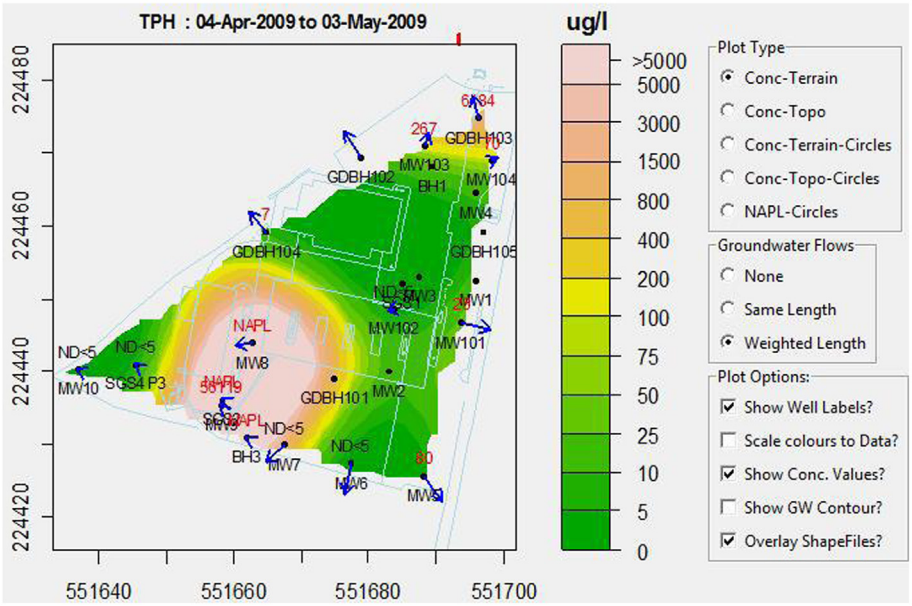


Fig. 5. Example of the GWSDAT spatial plot. The location of the named monitoring wells is depicted with black solid circles. Detect data or NAPL is displayed in a red font and non-detect in a black font above the wells. Blue arrows indicate vectors of estimated groundwater flow velocity. Spatiotemporal solute concentration smoother predictions are superposed using the colour key on the right. GIS shapefile data is overlaid using light blue lines.

using the R function *loess* – a 2D variant of the local linear regression method explained in Appendix A.1.

The spatial distribution of solute concentration is estimated by taking a time-slice through the spatiotemporal concentration smoother (discussed further in Section 4.5). The model predictions are superposed on the spatial plot with a user-specified colour key located to the right of the plot. Alternatively, if no model based predictions are required, the concentration smoother can be replaced by size scaled colour coded circles representing the magnitude of sampled solute concentration values. If NAPL is present, the additional 'NAPL-Circles' option is available which displays NAPL thickness measurements at the monitoring well locations using a similar circle based representation, i.e. a bubble-plot.

The spatial plot uses the R packages, *sp* (Pebesma and Bivand, 2005), *splancs* (Rowlingson et al., 2012) and *maptools* (Lewin-Koh et al., 2012).

4.5. Spatiotemporal trend analysis

One of GWSDAT's unique features is that the spatial and temporal components of the solute concentration data are modelled jointly in a single modelling framework described in Appendix A.3. The simultaneous statistical smoothing of both spatial and temporal components provides a clearer and more insightful interpretation of the groundwater monitoring site solute characteristics than would otherwise be gleaned from analysing these two components

separately. However, it is not an inconsiderable challenge to effectively communicate the 3-dimensional nature of spatiotemporal trend through a 2-dimensional medium of a computer monitor. Furthermore, there is an additional constraint that the output from a GWSDAT analysis is commonly used in paper-based non-interactive reports submitted to environmental regulators. For this reason, GWSDAT communicates spatiotemporal trend through automatic plotting of the full temporal sequence of spatial plots (see Section 4.4). This animation based approach provides a 'movie' clearly illustrating how both the spatial and temporal distribution of historical groundwater solute concentrations have changed over the monitoring period.

The 'animations' menu located at the top-left of the GWSDAT user interface (Fig. 2) provides three different methods for generating animations. The first method plots and records the full sequence of spatial plots in an R graphics window. The user can toggle forwards and backwards through the sequence of spatial plots using the 'Page Up' and 'Page Down' keyboard buttons. The second method is identical but additionally generates a Microsoft PowerPoint slidepack of the full sequence of spatial plots. The third method uses the R package *animation* (Xie, 2012), to generate a html animation page (with controls) of spatial plots in the user's internet browser. The html animation can be viewed independently of GWSDAT, and hence provides an excellent dynamic media for communicating results to individuals who do not have direct access to GWSDAT.

4.6. Report generation

By left-clicking on any of the GWSDAT user interface plots, an identical but expanded plot is generated in a separate R graphics window. Plots can be saved to a variety of different formats including 'jpeg', 'postscript', 'pdf', 'metafile'. Alternatively, with a single click of a mouse, plots and sequences of plots (e.g. spatiotemporal animation described in Section 4.5) can be diverted directly in to Microsoft Word or PowerPoint. This functionality, implemented using the R package *RDCOMClient* (Lang, 2012), enables the user to interactively compile a site groundwater monitoring report in an expeditious manner.

Additional report generation functionality include the 'Well Reporting' procedure, implemented using the R package *lattice* (Sarkar, 2008), which generates a matrix of graphs displaying time series solute concentration values on a well by well basis (see Fig. 6). This plot can be used to very concisely summarise the time series trends in the complete set of solutes and monitoring wells. A similar report procedure 'GW Well Reporting' also allows for the overlay of the time series in groundwater elevation at each well. Finally, the 'Latest Snapshot' procedure generates a sequence of plots (to PowerPoint if required) which reports on the most recent trends. This includes the latest spatial plot for each solute together with the most recent three variants of the 'Trend and Threshold Indicator Matrix' plot described in Section 4.3.

5. Discussion

Environmental risk-based management decisions are often based on limited understanding of groundwater data, and relatively limited statistical analysis of that data. GWSDAT has been designed and developed as a user-friendly, interactive, trend analysis tool for distilling the information from such groundwater monitoring data sets. The application has been used operationally in the monitoring and assessment of Shell's global downstream assets (e.g. refineries, terminals, fuel stations) for a period of over 4 years. Graphical output generated from GWSDAT is routinely included in reports

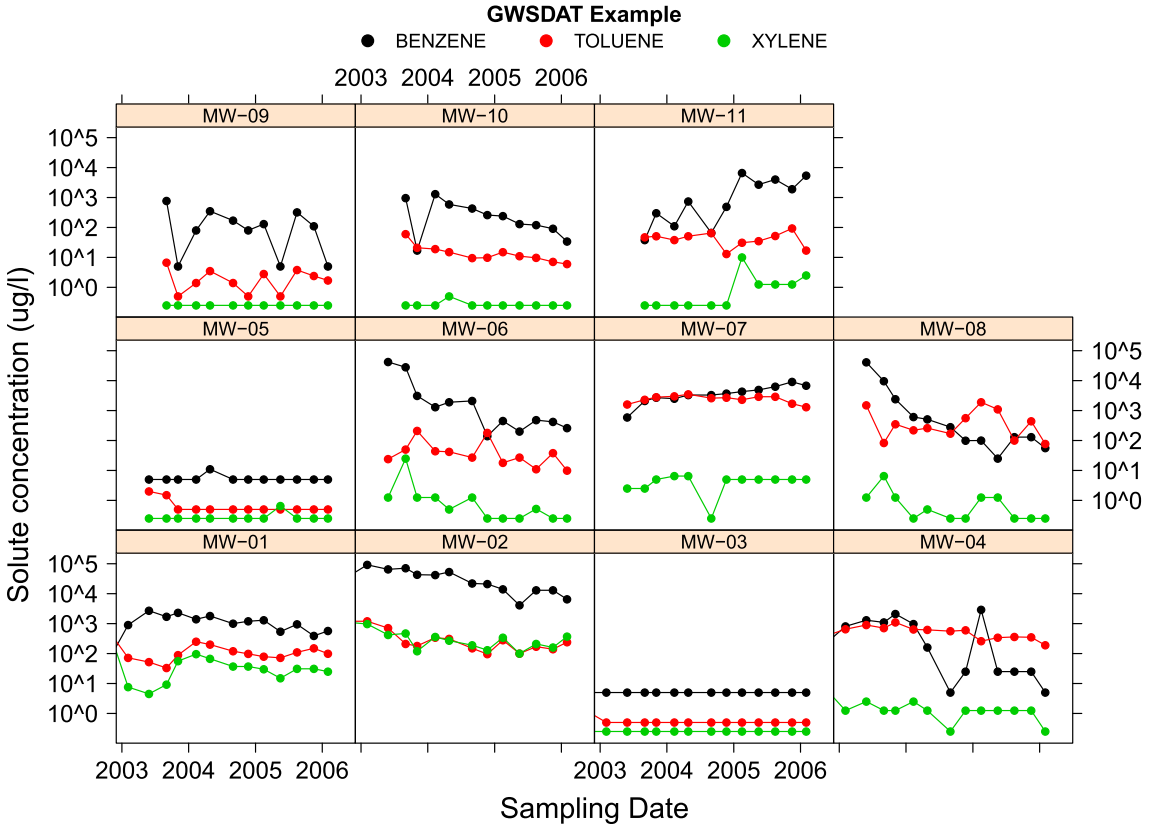


Fig. 6. Example of the GWSDAT Well report plot. The colour key at the top identifies each solute and the name of each well is displayed in a banner at the top of each of the individual time series graphs. This clearly illustrates the correlation in time series trends across the different solutes.

submitted to environmental regulators. Environmental engineers using GWSDAT have reported numerous benefits:

- Rapid interpretation of complex data sets for both small and large groundwater monitoring networks.
- Earlier identification of new spills or off-site migration.
- Reduced reliance on engineered remediation through increased use of monitored natural attenuation remedies, where groundwater data analysis supports its effectiveness.
- Earlier closeout of sites in needless long-term monitoring and/or remediation.
- Simplified preparation of groundwater monitoring reports.

6. Future developments

The major area for future development is the addition of new capabilities to GWSDAT. The assessment of solute plume stability is currently carried out by visually inspecting the evolution of the spatiotemporal solute concentration smoother. Feedback from users has highlighted the need for additional quantitative tools to supplement this graphical method. Development is currently underway to incorporate plume mass balance tools, such as those proposed in Ricker (2008), to automatically estimate plume characteristics such as area, total mass and centre of mass. The inspection of these quantities over the monitoring period will more objectively illustrate whether the plume is moving and if the plume is growing, shrinking or stable.

Future versions of GWSDAT will use spatiotemporal model standard errors to give the user a better understanding of model uncertainty and goodness of fit. The spatial distribution of model standard errors is of particular interest because it provides an assessment of the design of the well monitoring network. Areas of low monitoring density will have larger model standard errors. This not only informs the user that the predictions in this area need to be interpreted with care but also identifies potential locations where the construction of new monitoring wells would improve conceptual understanding of a site, and project decision-making. Model standard errors could also be used in the calculation of the solute plume characteristics mentioned above to provide a confidence interval on these quantities.

Whilst simple to implement, the substitution of non-detect concentration values is not without its disadvantages as discussed by Helsel (2004). These are partly mitigated in GWSDAT by offering the 'worse case' scenario of substitution with the full detection limit as opposed to the usual value of half the detection limit. However, the occurrence of different detection limits for the same solute (perhaps because different laboratories were used during the course of a long-term monitoring programme) is still troublesome as substitution with any constant fraction leads to an apparent trend in concentrations. The authors are currently researching more sophisticated censored regression techniques to handle non-detect data in the spatiotemporal modelling framework.

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Appendix A. Description of statistical modelling techniques

Appendix A.1. Well trend plot smoother

The well trend plot smoother is fitted using a non-parametric method called local linear regression. This involves solving locally the least squares problem:

$$\min_{\alpha,\beta} \sum_{i}^{n} \{y_i - \alpha - \beta(x_i - x)\}^2 w(x_i - x; h) \tag{A.1}$$

where $w(x_i - x;\ h)$ is a weight function with parameter h. The weight function gives the most weight to the data points nearest the point of estimation and the least weight to the data points that are furthest away. For the weight function GWSDAT uses a normally-distributed probability density function with standard deviation h. Local linear regression is deployed in GWSDAT using the R package *sm* (Bowman and Azzalini, 2010, 1997) and h is selected using the method published in Hurvich et al. (1998).

Appendix A.2. Groundwater flow estimation

Vectors of groundwater flow strength and direction are estimated using the well coordinates and recorded groundwater elevations. The model is based on the simple premise that local groundwater flow will follow the local direction of steepest descent (hydraulic gradient).

For a given well, a linear plane is fitted to the local groundwater level data:

$$L_i = a + bx_i + cy_i + \epsilon_i \tag{A.2}$$

where L_i represents the groundwater level at location (x_i, y_i). Local data is defined as the neighbouring wells as given by a Delaunay triangulation (Ahuja and Schacter, 1983; Turner, 2012) of the monitoring well locations. The gradient of this linear surface in both x and y directions is given by the coefficients b and c. Estimated direction of flow is given by:

$$\theta = \tan^{-1}\left(\frac{c}{b}\right) \tag{A.3}$$

and the relative hydraulic gradient (a measure of relative flow velocity) is given by

$$R = \sqrt{b^2 + c^2} \tag{A.4}$$

For any given model output interval this algorithm is applied to each and every well where a groundwater elevation has been recorded.

Appendix A.3. Spatiotemporal solute concentration smoother

The spatiotemporal solute concentration smoother is fitted using a non-parametric regression technique known as Penalised Splines (Eilers and Marx, 1992, 1996). A full and detailed explanation of applying this statistical method to groundwater monitoring data is the subject of another paper (Evers et al., 2014). However, the following outlines some of the most important aspects for the purposes of GWSDAT.

Let y_i be the natural log solute concentration at $x_i = (x_{i1}, x_{i2}, x_{i3})$ where x_{i1} and x_{i2} stand for the spatial coordinates of the well and x_{i3} represents the corresponding time point for the i-th observation with $i = 1, \ldots, n$. We start by modelling the solute concentration as

$$y_i = \sum_{j=1}^{m} b_j(\boldsymbol{x_i})\alpha_j + \epsilon_i \tag{A.5}$$

where the $b_j, j = 1, \ldots, m$ are m B-Spline basis functions, generally second or third order polynomials (Eilers and Marx, 1996). The measurement errors ϵ_i's are assumed to be independent and identically normally distributed with zero mean and variance σ^2. Rewriting Equation (A.5) in the more compact matrix notation leads to

$$\mathbf{y} = \mathbf{B}(\mathbf{x})\boldsymbol{\alpha} + \boldsymbol{\epsilon} \tag{A.6}$$

The traditional ordinary least squares approach is to minimize the objective function $S(\boldsymbol{\alpha}) = ||\boldsymbol{\epsilon}||^2 = \|\boldsymbol{y} - \boldsymbol{B}(\boldsymbol{x})\boldsymbol{\alpha}\|^2$. The well known major disadvantage of this approach is its propensity to overfit data leading to under smoothness in model predictions. To overcome this hurdle, the objective function is modified with the addition of a term that penalises the finite differences of the coefficients of adjacent B-splines. The objective function now takes the form $S(\boldsymbol{\alpha}) = \|\boldsymbol{y} - \boldsymbol{B}(\boldsymbol{x})\boldsymbol{\alpha}\|^2 + \lambda\|D_d\alpha\|^2$ where D_d is a matrix such that $D_d = \Delta^d$, the d-th differences of α, and λ is a nonnegative tuning parameter.

By minimising the new objective function for a given value of λ, we obtain the estimator of the parameters $\widehat{\boldsymbol{\alpha}} = (\boldsymbol{B}'\boldsymbol{B} + \lambda\boldsymbol{D}_d'\boldsymbol{D}_d)^{-1}\boldsymbol{B}'\boldsymbol{y}$. Note that when $\lambda = 0$, we have the standard ordinary least squares estimate for $\widehat{\boldsymbol{\alpha}}$.

Optimal selection of the penalisation parameter λ is a subtle and important matter. A value which is too small leads to 'overfitting', i.e. capturing the noise in the data. Conversely, a value which is too large leads to over smoothing of the data, i.e. 'underfitting'. Several criteria have been traditionally proposed (e.g. Hurvich et al. (1998), Wood (2006)) but the authors tackled this problem using a Bayesian modelling framework which is detailed in Evers et al. (2014).

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Appendix G-2: Supporting GWSDAT Statistical Modeling Reference
Spatiotemporal Regression and P-Spline Methodology

Document Title

Efficient and Automatic Methods for Flexible Regression on Spatiotemporal Data, with Applications to Groundwater Monitoring

Citation

Evers, L., Molinari, D.A., Bowman, A.W., Jones, W.R., and Spence, M.J. (2015). *Efficient and Automatic Methods for Flexible Regression on Spatiotemporal Data, with Applications to Groundwater Monitoring*. *Environmetrics*, 26, 431-441.

Purpose of Inclusion

This document is provided as supporting technical literature describing the Bayesian spatiotemporal regression methodology underlying GWSDAT.

The publication documents:

- Penalized spline (P-spline) regression;
- Spatiotemporal modeling techniques;
- Smoothing parameter selection;
- Groundwater contaminant concentration modeling;
- Development of continuous concentration surfaces from groundwater monitoring datasets.

The statistical methods described in this document support the concentration-surface generation and plume characterization procedures used in the GWSDAT evaluation presented in this Addendum.

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Efficient and automatic methods for flexible regression on spatiotemporal data, with applications to groundwater monitoring

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Fitting statistical models to spatiotemporal data requires finding the right balance between imposing smoothness and following the data. In the context of P-splines, we propose a Bayesian framework for choosing the smoothing parameter, which allows the construction of fully automatic data-driven methods for fitting flexible models to spatiotemporal data. An implementation, which is highly computationally efficient and exploits the sparsity of the design and penalty matrices, is proposed. The findings are illustrated using a simulation study and two examples, all concerned with the modelling of contaminants in groundwater. This suggests that the proposed strategy is more stable that competing methods based on the use of criteria such as generalised cross-validation and Akaike's Information Criterion. © 2015 The Authors. *Environmetrics* Published by John Wiley & Sons, Ltd.

All supporting information may be found in the online version of this article.

Keywords: spatiotemporal models; Bayesian methods; smoothing; splines; groundwater

1. INTRODUCTION

Spatiotemporal data have become ubiquitous. In some settings, this has been driven by the development of affordable technology for data collection where spatially located networks of sensors collect data over time. In environmental monitoring, multiple sensors are routinely used to gather data over time, in air, water or land settings. Brain imaging using electro-encephalography or magneto-encephalography is another example where around 200 sensors each record brain signals at very high time resolution, generating large volumes of data. In many scientific contexts, measurements are increasingly made automatically, leading to high-resolution data with a strong degree of regularity, while on other occasions, visits to sites of interest by trained personnel may be required, leading to sparser and more irregular data patterns. The problem discussed in the present paper deals with measurements of groundwater collected from wells and sent for subsequent lab analysis. Barcelona *et al.* (1985) describe the practical details. As mentioned earlier, the practicalities and cost of this inevitably lead to irregularity in time and also in space.

Models for the analysis and interpretation of spatiotemporal data have developed rapidly to match the demands of the data now available and the underlying questions. Sometimes, prediction is the aim, while on other occasions, interest can be directed at assessing the mean levels of the measurement and evidence for change over time. Banerjee *et al.* (2004), Finkenstädt *et al.* (2007) and Cressie and Wikle (2011) provide excellent entry points to the large literature on spatiotemporal modelling, with the last book very helpfully giving coverage of modern hierarchical and dynamic methods in both breadth and depth. These models are usually implemented in a Bayesian setting. In the wider literature, a unifying theme is the expectation that the spatial and temporal patterns exhibited will not follow simple parametric forms, so that models, which can express flexible, but generally smooth shapes, are required. One approach is to apply flexible forms of regression, described for example by Wood (2006), in the spatiotemporal setting. Bowman *et al.* (2009) take this approach to the modelling of sulfur dioxide over Europe throughout the 1990s. P-splines, described by Eilers and Marx (1996), and more general regression splines, offer a very interesting approach through the use of relatively low-dimensional sets of basis functions, and Lee and Durban (2011) apply this to the spatiotemporal modelling of ozone over Europe. The formulation of P-splines offers an interpretation in terms of mixed effects, and Ruppert *et al.* (2003) showed a wide range of settings to which these models can be applied when the random effect interpretation is appropriate. A fully Bayesian P-splines model was introduced by Lang and Brezger (2004), with inference carried out by Markov chain Monte Carlo MCMC. Fahrmeir *et al.* (2004) adopted a model of this type in the specific setting of spatiotemporal data with an empirical Bayes approach, which returns again to a mixed-model representation. Brezger and Lang (2006) provided a wider range of models and efficient updating schemes,

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while Brezger and Lang (2008) discussed simultaneous probability statements for Bayesian P-spline models, again in the context of MCMC implementation. More recently, Wood (2011) explored the Restricted maximum likelihood (REML) approach in detail and developed a fast implementation in a generalised linear modelling framework.

The context of the application discussed in this paper is the monitoring of contamination in groundwater. It is clearly important to assess water quality and its associated risks to human health and the wider environment, and in particular, to detect sudden increases in contaminant concentration due to possible releases. The contaminants in the groundwater are measured using water samples collected from wells and sent for subsequent lab analysis. The practicalities and cost of this inevitably lead to irregularity in time and also in space, even when operating within a fixed set of sampling locations determined by the well positions. The data collection and assessment activity are generally undertaken by staff who have science or engineering backgrounds, but may not have had advanced training in statistical methods. However it is impractical that results should always be referred back to others for statistical analysis, and so there is a practical need for statistical tools that can be implemented easily and robustly as a routine part of the work of those environmental professionals. The analysis therefore needs to be fully automatic and fast to not only carry out but also to produce results, which are reliable, informative, and to aid robust project decision-making.

The aim of the present paper is to address these issues. In order to allow the construction of flexible models over space and time, P-splines are used because of their ability to provide compact representations and to express smoothness control in simple forms, as described in Section 2. A fully Bayesian spatiotemporal model is introduced in Section 3, using conjugate priors to avoid the need for MCMC implementation. In particular, the issue of selecting the degree of smoothness in the model is also addressed in order to produce a fully automatic procedure. A focus will be on issues of 'ballooning', where predictions can be high in areas where there are no data, and this is identified and addressed by appropriate choices of the number of basis functions and the type of smoothness penalty used. The need for speed is addressed through matrix decompositions, which enable the parameter that controls smoothness to be separated out from the computationally intensive parts of the calculation, along similar lines to those used by Ruppert *et al.* (2003), but also exploiting the sparsity of the design matrices associated with the spline basis.

2. SPATIOTEMPORAL SMOOTHING BY P-SPLINES

The P-spline approach to smoothing has become widely used because of its simplicity and its 'low rank' representation of the function of interest. In the simplest case where responses y_i and covariate values x_i are observed for a sample $i = 1, \ldots, n$, the model $y_i = m(x_i) + \varepsilon_i$ describes a flexible underlying relationship through the nonparametric regression function m whose form is unspecified beyond an assumption of smoothness. A basis approach assumes this function can be expressed through a linear combination $\sum_{j=1}^{p} \alpha_j \phi_j(x)$, where the functions $\phi_j(x)$ are usually taken to be B-splines (usually of order 3) because of their efficient construction from polynomial pieces. By modifying the values of the coefficients α_j, a huge range of smooth functions can be created by weighting the local P-spline basis functions, which are centred at a grid of values along the x-axis.

A simple method of extending this to the spatiotemporal setting, where data y_i are indexed over space (s_{1i}, s_{2i}) and time t_i, for $i = 1, \ldots, n$, is to express the regression function as $m(s_1, s_2, t) = \sum_j \sum_k \sum_l \alpha_{jkl} \phi_j(s_1) \phi_k(s_2) \phi_l(t)$, which corresponds to using the tensor product of the marginal B-spline bases. This uses a basis set, which is simply the product of all triples of the marginal basis functions over s_1, s_2 and t. This can be conveniently expressed in vector-matrix form as $\mathbf{Y} = \mathbf{B}\boldsymbol{\alpha} + \boldsymbol{\varepsilon}$, where $\boldsymbol{Y}$ and $\boldsymbol{\varepsilon}$ are vectors of response data and error terms, $\boldsymbol{\alpha}$ is the vector of parameters α_{jkl} and the design matrix $\mathbf{B}$ consists of the basis functions (columns) evaluated at each data point (rows). The design matrix $\mathbf{B}$ can be efficiently constructed through 'row-wise' Kronecker products of the marginal basis functions (Ugarte *et al.*, 2010; Lee and Durban, 2011). The marginal spline bases make use of equally spaced knots, as this simplifies the construction of the penalty that will be employed to regularise the spline coefficients. Tensor product splines are not the only spline-based approach for covering the spatial domain. One alternative method commonly used in this context (see e.g. Kammann and Wand, 2003) are thin-plate splines. The latter have the advantage that they can adapt to the spatial density of the data and thus may lead to a more efficient placement of the spline knots, however, at the expense of having to run an additional algorithm for their placement.

Although this model can be fitted by simple least squares, Eilers and Marx (1996) proposed to use a dense set of basis functions in conjunction with a penalty term to control the degree of smoothness in the estimate. Specifically, the parameter estimate is chosen to be the value of $\boldsymbol{\alpha}$ that minimises

$$\|\mathbf{y} - \mathbf{B}\boldsymbol{\alpha}\|^2 + \lambda \|\mathbf{D}\boldsymbol{\alpha}\|^2 \tag{1}$$

where the matrix $\mathbf{D}$ computes successive differences across the sequence of α_{jkl}'s in each of the three covariate dimensions. Second-order differences are often used. Large values of the smoothing parameter λ thereby induce smoothness in the values of $\boldsymbol{\alpha}$ and hence in the estimated function m. The solution for the basis coefficients is easily seen to be $\hat{\boldsymbol{\alpha}} = (\mathbf{B}^T\mathbf{B} + \lambda\mathbf{D}^T\mathbf{D})^{-1}\mathbf{B}^T\mathbf{y}$. The trace of the matrix $\mathbf{B}(\mathbf{B}^T\mathbf{B} + \lambda\mathbf{D}^T\mathbf{D})^{-1}\mathbf{B}^T$, which creates the fitted values from the data vector $\mathbf{y}$, is defined as the 'effective degrees of freedom' by analogy with standard linear models. This gives a more intuitive scale on which the smoothness of the estimate can be expressed. The details of these methods are described by Eilers and Marx (1996), Ruppert *et al.* (2003), Wood (2006) and many other authors. In particular, Lee and Durban (2011) and Ugarte *et al.* (2010) discuss P-splines in the spatiotemporal setting.

In all forms of flexible or nonparametric regression, the choice of the degree of smoothness for the estimator is a crucial one, and many authors have addressed this issue. Widely used approaches include cross-validation (CV) that, using spatiotemporal notation, chooses λ to minimise $\sum_{i=1}^{n} \{y_i - \hat{m}_{-i}(s_{1i}, s_{2i}, t_i)\}^2$, where the subscript $-i$ indicates that observation i is not included in the construction of the estimate. Generalised cross-validation (GCV) is a popular variation. Akaike's Information Criterion (AIC) and its variation Akaike information criterion (AICc), described by Hurvich and Tsai (1989), are also widely used as a means of balancing the goodness-of-fit of the model against

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its complexity. The general thinking is that AICc is less affected by the under-smoothing to which AIC and cross-validation are sometimes prone. Another commonly used criterion is BIC. The details of all these methods are discussed by many authors, with Wood (2006) as a good starting point.

In the groundwater monitoring setting described in Section 1, the choice of the degree of smoothing is particularly important, as it needs to be implemented in an unsupervised, automatic setting. The panels in Figure 1 show the predicted concentrations at a single time snapshot from a dataset of benzene measurements, using a P-spline spatiotemporal model. The top-left panel shows the effects of using AICc in selecting the smoothness of the estimate. A troubling feature is that there are areas of high predicted values, which are not well supported by the observed data ('ballooning'). The top-right panel shows the results when four wells are omitted. Even though the four omitted wells recorded low concentrations, omitting them causes the unsupported peaks of the posterior distribution to disappear, indicating strong sensitivity of the results to particular observations. A further source of concern is that removing these wells changes the predictions in the immediate vicinity of the wells less than predictions further away. GCV and observation-based cross-validation suffer from the same problem. The results obtained by a Bayesian approach (shown in the bottom two rows) are much less sensitive to the removal of the four wells. The results for cross-validation depend on whether the well structure is used when omitting observations. This will be discussed in more detail in Sections 5 and 6. The single most important factor that causes this 'ballooning' is the design used for collecting the data. However, this design is typically imposed by external constraints and thus cannot be changed.

Another key contributing factor to the 'ballooning' problems is the choice of the number of basis functions used. The computational advantage of using splines over other methods such as kriging depends strongly on the number of basis functions. In almost all practical applications, this number is chosen by finding a reasonable compromise between run time and memory usage. This is not a problematic issue for one-dimensional or two-dimensional data where a moderate number of basis functions (say around 25) present little computational challenge. For spatiotemporal data however, using 25 basis functions for each dimension would result in having to perform expensive matrix operations on a $15,625 \times 15,625$ matrix, which in the context discussed here is not a realistic option.

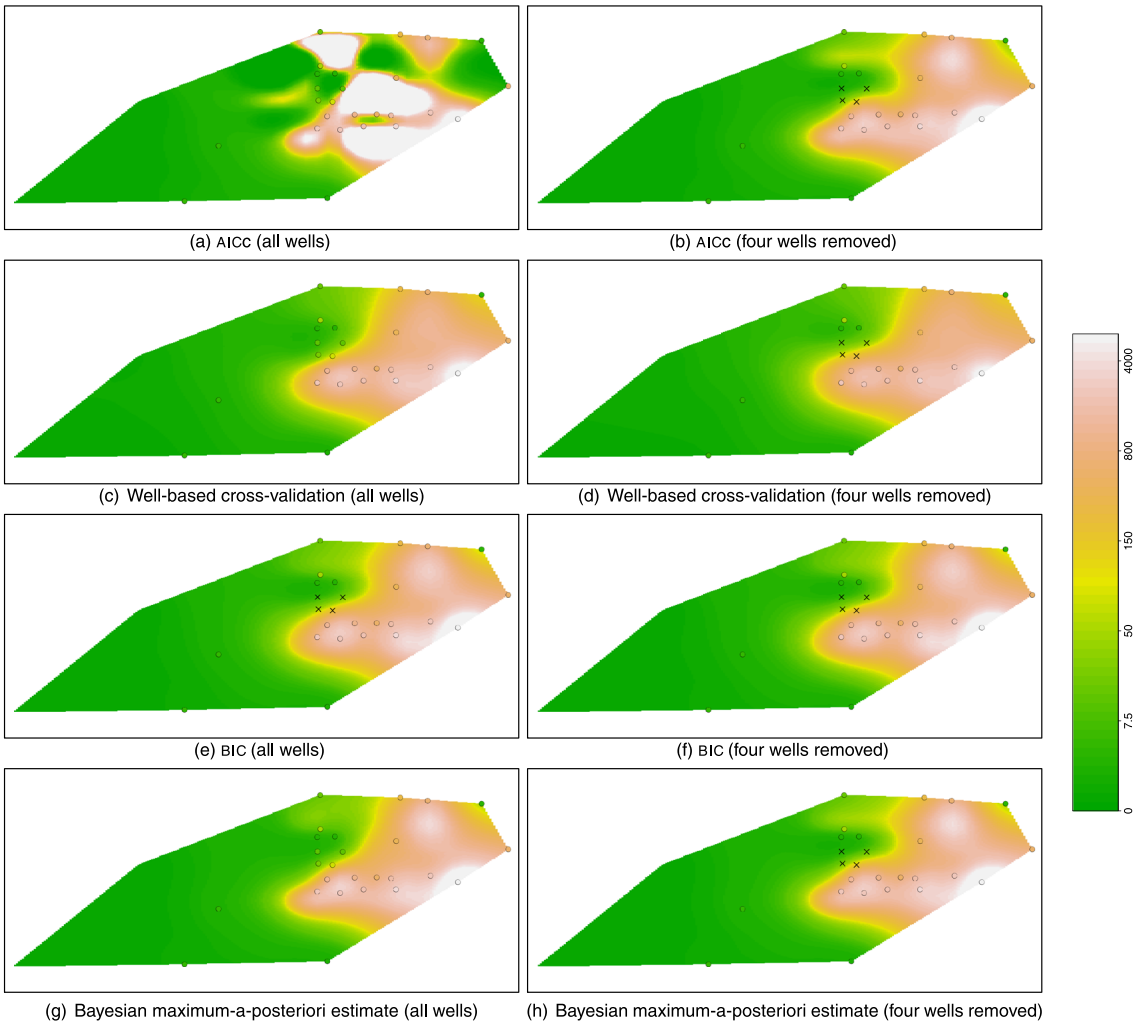


Figure 1. Predictions of the concentration (in $\mu g/\ell$) for the benzene data on one particular day (Section 6.1) using the penalisation parameter chosen by optimising the different criteria, as well as fully Bayesian model averaging. The left column was obtained by using all wells, the right column was obtained after removing four wells (marked by crosses). Using generalised cross-validation or observation-based cross-validation gives results very similar to AICc

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In the context of spatiotemporal models, a low number of basis functions are usually chosen, and this raises the question of whether it is also necessary to use a penalty to induce smoothness, given that the low number of basis functions already offers some protection against over-fitting. The results discussed in Sections 5 and 6, however, show that using a penalty is especially important in this case, as it helps to prevent 'ballooning'.

The methods of selecting smoothness and the number of basis functions used are not the only factors in the appearance of this 'ballooning' effect of high and low values. The use of a second-order smoothness penalty encourages the appearance of linear sections, especially if there is a gap in the data, as these linear sections do not attract any penalty. Depending on the data around the gap, this can lead to a high peak or deep valley with little support from neighbouring observations. Using a first-order smoothness penalty typically lessens the problem to some extent, but is, on its own, often not enough to avoid 'ballooning' altogether. Choosing a different transformation of the response variable, such as the logarithm or the square root, can, depending on the data and the transform used, also have an effect.

There is a vast literature on the selection of the smoothing parameter for spline-based models in order to avoid over-fitting or under-fitting. The focus of this work is on the problem of 'ballooning', which is a different phenomenon.

3. BAYESIAN SPATIOTEMPORAL SMOOTHING

This section sets out how a Bayesian framework can be used to select the smoothing parameter. The starting point in the classical Bayesian linear model formulation (see e.g. Denison *et al.*, 2002) is adapted to the spatiotemporal setting. If the model determined by a particular value of the penalisation parameter λ is denoted by M_λ then, using the model described earlier, the likelihood function is derived from

$$\boldsymbol{Y}|\boldsymbol{\alpha}, \sigma^2, M_\lambda \sim \mathcal{N}\left(\boldsymbol{B}\boldsymbol{\alpha}, \sigma^2 \boldsymbol{I}_n\right)$$

with $\boldsymbol{Y} \in \mathbb{R}^n$, $\boldsymbol{B} \in \mathbb{R}^{n\times m}$ and $\boldsymbol{\alpha} \in \mathbb{R}^m$. For a fixed value of smoothing parameter, a conjugate prior for the parameters $\boldsymbol{\alpha}, \sigma^2$ is the normal-inverse gamma, that is,

$$\boldsymbol{\alpha}, \sigma^2 | M_\lambda \sim \mathcal{NIG}\left(\mathbf{0}, (\lambda \boldsymbol{D}'\boldsymbol{D})^{-1}, a, b\right)$$

In Sections 5 and 6, we use $a = b = 0.0001$ to acknowledge the uncertain prior information on the parameter σ^2.

The posterior distribution of the penalisation parameter λ can be shown to be

$$f_{M_\lambda|\boldsymbol{Y}} \propto \lambda^{\text{rank}(\mathbf{D}'\mathbf{D})/2} \frac{|\boldsymbol{B}'\boldsymbol{B} + \lambda \boldsymbol{D}'\boldsymbol{D}|^{-1/2}}{\left\{2b + \boldsymbol{y}'\left[\boldsymbol{I_n} - \boldsymbol{B}(\boldsymbol{B}'\boldsymbol{B} + \lambda \boldsymbol{D}'\boldsymbol{D})^{-1}\boldsymbol{B}'\right]\boldsymbol{y}\right\}^{a+n/2}} f^{\text{prior}}_{M_\lambda}$$

This is a special case of model comparison of Bayesian linear models, here using λ as the model index; for a general result see for example, Denison *et al.* (2002, equation 2.24, which gives the general principle for the comparison of Bayes factor). One difficulty in the present context is the degenerate nature of the prior for $\boldsymbol{\alpha}$, expressed in the rank deficiency of the differencing matrix $\mathbf{D}$. This can be handled by use of an additional ridge penalty, which gives the matrix $\mathbf{D}$ full rank. The posterior distribution shown earlier can be obtained by considering the limit as this ridge penalty goes to 0. Alternatively, it is possible to decompose the regression coefficients $\boldsymbol{\alpha}$ into two components, one of which has a flat improper prior and the other a proper Gaussian prior. This approach is discussed in more detail in the Appendix.

The main difference between this approach and the random-effects formulation of Ruppert *et al.* (2003) is that both the regression coefficients and the variance are handled in a Bayesian way, resulting in a fully Bayesian model.

In Sections 5 and 6, a non-informative improper uniform prior is used for f_{M_λ}. The value of λ that maximises this posterior density, known as the MAP (*maximum a posteriori*) value, is then adopted for penalisation. Additionally, a fully Bayesian approach, numerically integrating out the penalty parameter λ, is considered.

The use of conjugate priors is a computational convenience that addresses the need for fast computation, as MCMC or other solutions required for dealing with non-conjugate priors would be infeasible, given the time constraints which apply. Only when a conjugate prior is placed on $\boldsymbol{\alpha}$ and σ^2 is it possible to compute efficiently the marginal posterior probability of a given model M_λ. The proposed methodology works with any prior placed on M_λ. The flat prior used in Sections 5 and 6 is used for convenience. The results are however not sensitive to reasonable choices for the prior on M_λ.

4. COMPUTATIONAL ISSUES

Computation of the MAP distribution requires the determinant of the posterior covariance matrix of $\boldsymbol{\alpha}$ as well as the posterior residual sum of squares, which in turn requires computation of the penalised least-squares estimator minimising the objective function (1). The penalised least-squares estimator and the determinant have to be recomputed for every value of λ under consideration. This requires matrix operations, which are $O(p^3)$, where p is the number of regression parameters. For a spatiotemporal penalised spline model using p_0 basis functions in each dimension, we have $p \sim p_0^3$; thus, the cost of the matrix operations is $O(p_0^9)$

However, the problem can be rewritten (see e.g. Wood, 2000; Ruppert *et al.*, 2003) in such a way that the expensive linear algebra operations can be performed independently of λ, and only $O(p^2)$ operations have to performed for every value of λ. This allows the MAP solution to be computed much more efficiently.

Both the matrix of basis functions $\mathbf{B}$ and the differencing matrix $\mathbf{D}$ are sparse. Exploiting this sparseness allows further improvement in computational efficiency. However, for a trivariate P-spline problem with a moderate number of knots, the matrix $\mathbf{B}$ is much more dense

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than the matrix **D**. For example, if 10 basis functions are used for each dimension, roughly 14% of the entries of **B** are non-zero, whereas less than 0.3% of the entries of **D** are non-zero. Sparsity can therefore be exploited most effectively by working initially only on the matrix **D**, in contrast to the approaches set out by Wood (2000) and Ruppert *et al.* (2003), which start by manipulating the matrix **B**. The approach set out in detail in the Appendix is loosely based on the method described by Eldén (1977). The core idea is to exploit the sparseness of the matrices for almost all matrix operations. However, each matrix decomposition creates 'in-fill', and so the matrices become increasingly dense. Only the final step, a singular value decomposition, is computed using dense methods. This implies that exploiting the sparsity of the design matrix and penalty matrix will not allow the implementation to become much more than twice as fast as the corresponding dense methods. However, in the context of this work, where the aim is to obtain results within less than a minute, this offers a significant increase in speed. In addition, exploiting the sparseness reduces the amount of memory used.

5. SIMULATION STUDY

In this section, a simple simulation study is used to compare the different methods of selecting the smoothing parameter in a systematic way. The data are simulated from a highly idealised model for the spread of a solute in water. This is based on the partial differential equation

$$\frac{\partial y}{\partial t} = D \cdot \left(\frac{\partial^2 y}{\partial s_1^2} + \frac{\partial^2 y}{\partial s_2^2} \right) + \psi_1(s_1, s_2) \frac{\partial y}{\partial s_1} + \psi_2(s_1, s_2) \frac{\partial y}{\partial s_2}$$

Here, y denotes the concentration of the solute, s_1 and s_2 denote the spatial coordinates and $t \in [0, 1]$ denotes time. The first term describes the spread of the solute in the groundwater by diffusion, with the constant D controlling how fast the solute spreads. The two further advection terms describe how the solute is affected by groundwater flow, whose direction and velocity is represented by the functions ψ_1 and ψ_2. These functions were chosen to correspond to the observed groundwater levels in the benzene example discussed in Section 6.1.

Figure S1(a) shows the assumed groundwater levels and flow, which in the simulations are assumed for simplicity to be constant over time, as well as the assumed initial spread of the solute and its evolution over time. The 'true' concentrations were obtained by interpolating the numerical solution to the differential equation, computed over a $100 \times 100 \times 100$ regular grid. Observed measurement data were generated by multiplicative Gaussian error terms, with standard deviation chosen to give a signal-to-noise ratio on the log-scale of 10 : 1. This reflects the fact that measurements of the solutes are usually quite accurate. A very small value of 0.05 was used for within-well correlation of the data, while the between-well correlation was assumed to be 0. Before the data were analysed, they were transformed using the function $\log(y + 1)$. The additive term was introduced because the simulations can produce concentrations of exactly 0. All model fitting and evaluation were performed on the transformed scale.

A P-spline model using second-order basis functions and a first-order penalty was used with 14 basis functions for easting, eight for northing and five for time. The different number of basis functions for space matches the different extents of the monitored region in easting and northing in the guiding example, while the reduced number of basis functions for time was chosen to reflect the fact that concentrations vary more quickly in space than in time. Addressing these issues through the basis functions allows a single smoothing parameter to be used in the model. Where little a priori information on solute behaviour is available, a natural default would be to choose a common number of basis functions in each dimension. The overall number of basis functions is deliberately chosen to be rather low to allow fast computations. Experimentation has shown these numbers of basis functions to be effective from this perspective, in addition to preventing 'ballooning' or over-fitting and producing good estimates of the underlying solute patterns.

Three different designs were used. The first scenario uses exactly the same well coordinates and sample dates as the benzene example discussed in Section 6.1. It consists of 1402 observations sampled at 29 well locations. The second scenario uses a much larger number of 280 randomly placed wells that are sampled much less frequently, resulting in the same number of observations. The second scenario is a much better design from a statistical point of view but is, of course, much more expensive, as establishing a new well is considerably more costly than collecting a sample from an existing one. The third scenario uses the same wells as the first scenario, but only has 100 observations in total, with each well sampled only about four times on average.

For all three scenarios, the methods were compared using the integrated squared error

$$\int \int_{\mathcal{S}} \int (\hat{m}(s_1, s_2, t) - m(s_1, s_2, t))^2 ds_1 ds_2 dt$$

The integral was computed numerically over the inside of the convex hull of the observed wells and sampling dates.

Table 1 shows the results obtained from 500 replications for all three scenarios. From the table, it is immediately clear that no one method outperforms all other methods for all three scenarios.

Out of the three scenarios presented, only scenario one is prone to 'ballooning'. In this situation, AICc and GCV show poor performance. These two criteria, as well as observation-based cross-validation, lead to severe 'ballooning'. The Bayesian approaches (BIC, MAP and model averaging) give much better performance, with no evidence of 'ballooning'. The predicted concentration surfaces obtained using the different criteria are given in Figure S2. Figure 2 (a) shows density strip plots (Jackson, 2008) of the distribution of the smoothing parameter λ for each method. This shows that the Bayesian approaches and well-based cross-validation select values of the smoothing parameter λ, which are large enough to prevent 'ballooning'. The problems with other methods are caused by values of λ, which are too low.

Although BIC performs very well if the focus is on preventing ballooning, it is prone to under-fitting. In the second scenario, which provides the 'best' data for estimating the concentrations, BIC performs significantly worse than the other methods. As Figure 2 (b) shows, this is because of selecting a value for λ, which is too large.

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Table 1. Integrated squared errors of the predictions averaged over the convex hull of the data for the three well scenarios

Criterion used to select smoothness	Scenario 1		Scenario 2		Scenario 3	
	mean	(std. err.)	mean	(std. err)	mean	(std. err)
AICc	313.326	(258.319)	0.137	(0.003)	0.870	(0.009)
Generalised cross-validation	348.947	(276.003)	0.139	(0.001)	3.780	(2.282)
obs.-based CV	3.552	(0.216)	0.141	(0.001)	1.023	(0.016)
well-based CV	0.809	(0.012)	0.138	(0.001)	0.902	(0.012)
BIC	1.028	(0.013)	0.179	(0.001)	0.875	(0.003)
Bayesian MAP	1.662	(0.020)	0.136	(0.001)	0.863	(0.005)
Bayesian model avg.	1.639	(0.019)	0.136	(0.001)	0.858	(0.005)

In all three scenarios, the MAP and the fully Bayesian approach give good results, being the best method in the second and the third scenarios.

Cross-validation is, by far, the most computationally demanding method. In the simulations, and in Section 6, 10-fold cross-validation was used. The results depend on how the cross-validation is carried out. One option is to remove entire wells rather than single observations, and in this case, cross-validation favours very large values of the penalty parameter. In contrast, if the well structure is ignored and individual observations are removed, cross-validation favours very small values of the penalty parameter. The reason for the difference is that in this dataset, 'ballooning' occurs only in space and not in time. There is a small number of wells, and these are sampled very frequently in time. Omitting observations individually typically does not create gaps in time, which are large enough to allow 'ballooning' at individual wells. Cross-validation can therefore address 'ballooning' only if a well is omitted entirely. The difference between the two variants is much less pronounced in the second and third scenarios.

The proposed model can be extended by allowing two separate smoothing parameters, one for space and one for time. Only one of these tuning parameters can be tuned using the efficient linear algebra in Section 4. Tuning the second smoothing parameter requires recalculating all the matrix decompositions described in the Appendix for each candidate value of the second smoothing parameter, which significantly slows down the computations. However, when two smoothing parameters are used in scenario one, the temporal smoothing parameter is estimated to be around 20 times the spatial smoothing parameter. This might suggest that the use of a single smoothing parameter is inappropriate, but the models with two smoothing parameters are more likely to suffer from ballooning, leading to a poorer fit. If the ratio of the smoothing parameters is chosen to minimise the mean-square error on the test data, one would choose both smoothing parameters to be roughly equal, suggesting that a single smoothing parameter helps preventing ballooning and allows a more robust estimation of the concentration surface. This supports the use of a single smoothing parameter.

6. APPLICATION TO GROUNDWATER MONITORING

6.1. Monitoring of benzene in groundwater

Benzene (C_6H_6) is a constituent of crude oil and refined petrol, which can have serious adverse health (and ecological) effects if released into the environment. A release from an underground storage tank system can result in benzene contaminating the groundwater below the storage tank system. After such releases, networks of wells are set up to monitor possible groundwater contamination. The contaminant of interest is the concentration of benzene in $\mu g/\ell$ (modelled on a log-scale). The data consist of 1402 observations, which were obtained from a network of 29 wells, with considerable irregularity in the spatial and temporal spacing of the observations. A p-spline model using second-order basis functions and first-order difference penalties was fitted, with the smoothing parameter determined using different criteria. Different numbers of basis functions were chosen for the two spatial dimensions, with 18 for easting and 11 for northing, to reflect the different spatial extents in these directions. To reflect the fact that the level of spatial variation is expected to exceed the temporal variation, a smaller number (7) of basis functions were used for the time margin. The choice of the numbers of basis functions therefore provides a simple device for allowing appropriately differential degrees of smoothing in different dimensions, while retaining the very large computational advantage of a single overall penalty parameter.

Figure 3 depicts the choice of the optimal value of the penalty parameter for this example. In the case of the Bayesian MAP approach, the optimal choice is given by the value of λ, which maximises its posterior distribution. It is noticeable that AICc, GCV and observation-based cross-validation all lead to very low estimates of the smoothing parameter, which effectively 'switches off' the penalty, leading to 'ballooning'. BIC and well-based cross-validation select a much larger value of the smoothing parameter, preventing 'ballooning'. Using a fully Bayesian approach (MAP or full model averaging) results in a smoothing parameter, which is smaller than the one selected by BIC and well-based cross-validation but is still big enough to prevent 'ballooning'. The posterior distribution of λ is typically quite narrow, so using the MAP usually gives results very similar to a fully Bayesian treatment of the smoothing parameter, which involves averaging over λ. This is borne out in this example, as well as in the simulations in Section 5. As shown in Figure 1 and discussed in Section 2, the MAP is not sensitive to the removal of the four wells, shown as crosses in the right-hand column of plots. In contrast, the values chosen by AICc, GCV and observation-based cross-validation are highly sensitive, with removal of the wells resulting in a big change in the predictions with much more credible predicted concentrations. This highlights that the well design plays a key role.

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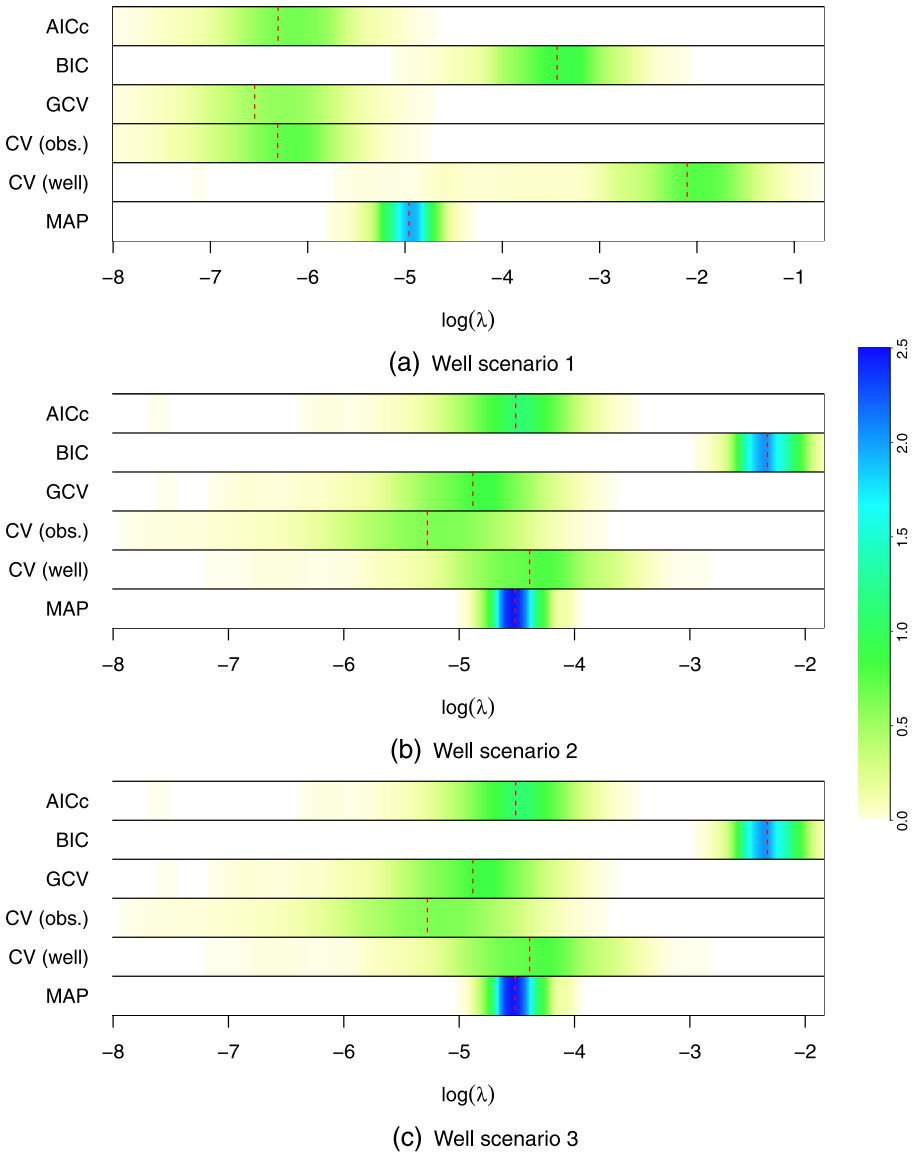


Figure 2. Density strip plots of the smoothing parameters chosen by the different methods for both scenarios. The dashed red line indicates the median

6.2. Monitoring of methyl tertiary butyl ether in groundwater

A more extensive example of the use of these techniques is provided by retrospective analysis of a dataset on a pollution event at a refinery site. MTBE (methyl tertiary butyl ether) is a petrol additive designed to reduce engine knocking and noxious emissions. MTBE is no longer in routine use at the site studied but was present in the refinery at the time of the event. On entry to groundwater, MTBE moves conservatively because of its high aqueous solubility and low retardation potential. It degrades only slowly under anaerobic conditions. Figure 4 shows a schematic plan of the site with colour-coded points to indicate the concentrations of MTBE measured at the monitoring wells at a date near the time of the MTBE release. Standard methods of analysis in this setting were to inspect individual well measurements over time to identify trends. Geographical information systems were available and these were helpful for individual time snapshots but these could not easily be adapted to show the evolving dynamics of the incident. Figure 5 (and the earlier Figure 1) was created using the `rp.spacetime` function from the current version of the `rpanel` (Bowman *et al.*, 2007) package for `R` (R Development Core Team, 2011). This shows the estimated pollution surface at four time points using the Bayesian smoothing model described in Section 3, using 18 basis functions for easting, 22 basis functions for northing, 14 basis functions for time and the MAP estimate of λ. Despite the presence of protective pumping wells at the north–west boundary of the refinery site, the threat of MTBE migrating across the site boundary and potentially reaching drinking water wells required immediate action. The first time point shown in Figure 5 corresponds to the upgrading of a line of wells used to form a flow barrier in the middle of the site. The effectiveness of these wells was greatly improved, and the resulting curtailment of the plume to the north-west is apparent. Subsequently, the source of the MTBE release was identified near the south–east corner of the site, and the model clearly tracks the dissipation and attenuation of MTBE and the end of the incident. The shape and direction of the plume are clear and consistent with the south–east/north–west gradient in groundwater flow. Figure S4 shows the estimate of the time trend for four selected wells.

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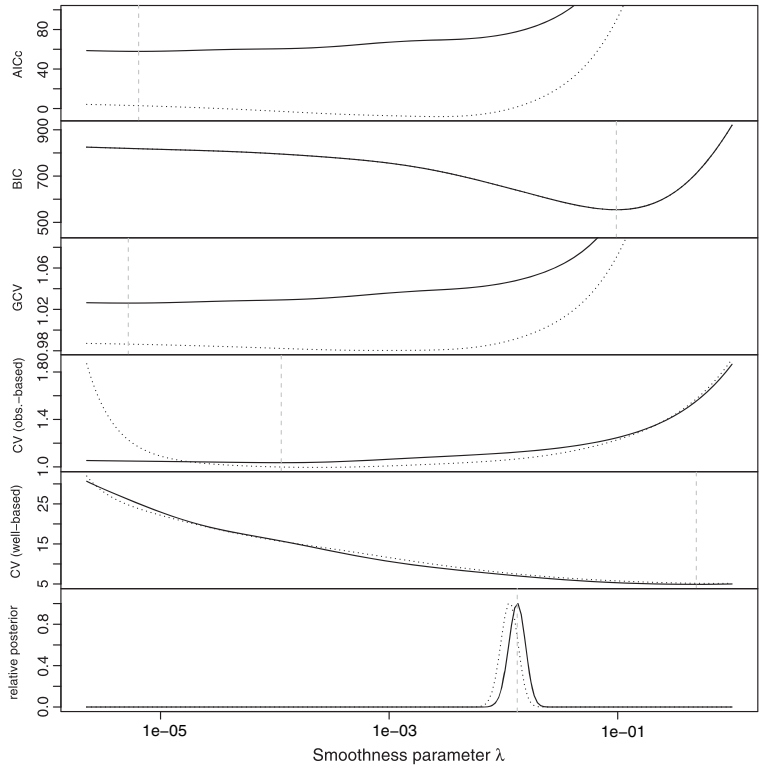


Figure 3. Different objective functions that can be used to determine the optimal amount of smoothing, applied to the benzene data. The solid lines were obtained using all wells. The dotted lines were obtained after removing four wells. The vertical dashed lines indicate the location of the minimum when all wells are used

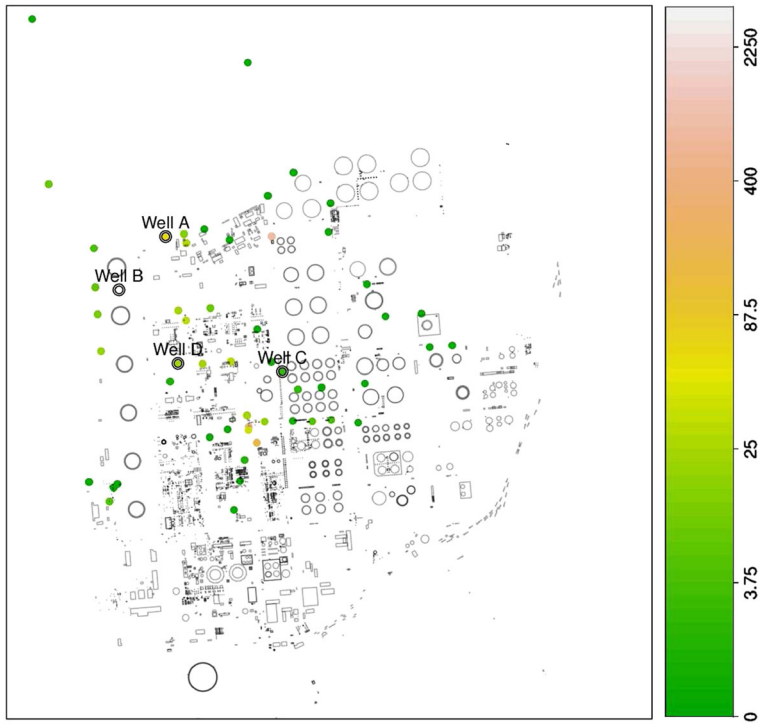


Figure 4. Plan of the refinery site and wells. The wells are colour-coded according to observed concentrations of methyl tertiary butyl ether immediately after release

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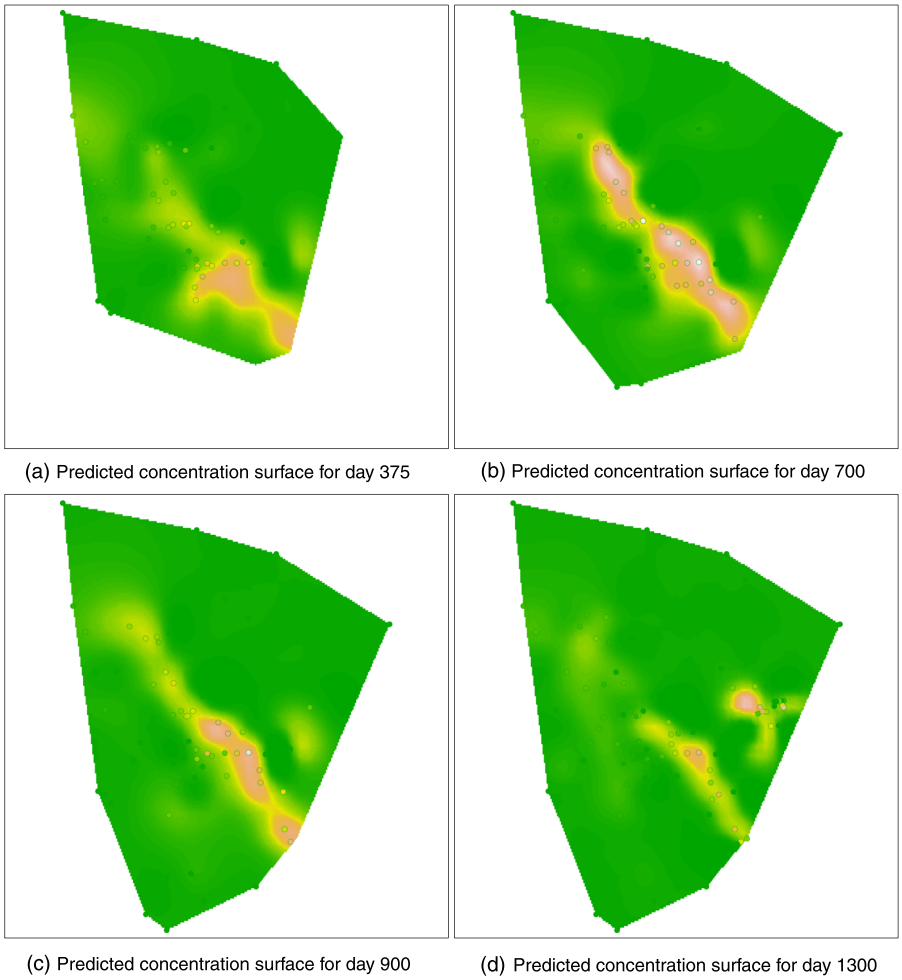


Figure 5. Predicted levels of methyl tertiary butyl ether concentration across space obtained using the maximum a posteori estimate of the smoothing parameter for four time points. The colour scale is the same as that used in Figure 4

In order to assess the effect of the number of basis functions, we have also investigated a model with fewer basis functions (14 basis functions for easting, 17 basis functions for northing and 10 basis functions for time) and a model with an increased number of basis functions (22 basis functions for easting, 26 basis functions for northing and 15 basis functions for time). The smaller model uses about half of the number of parameters of the model shown in Figures 5 and is about eight times faster, as suggested by the computational complexity of the final eigenvalue decomposition. The larger model has about twice as many parameters than the aforementioned model and takes about eight times as long to fit. The smaller model suffers from ballooning in the North East, whereas the larger model gives results similar to the model used. Plots of the estimated concentration surface obtained from these two models are available in Figure S5.

7. DISCUSSION

A fully automatic Bayesian framework for determining the smoothing parameter in spatiotemporal P-spline models has been proposed. The focus was on a situation where the key objective was to deliver, on a fast timescale, automatic and robust estimates of the distribution of a solute in groundwater and the corresponding plume geometry. In particular, there was a need to avoid spurious local extrema of the predictive surface with little support in the data ('ballooning'), which can sometimes occur in regions where the well design is sparse.

In our experience, and evidenced by the simulation study and the two real-world examples presented, the Bayesian methods studied are more stable than competing strategies based on criteria such as the AICc or GCV. While BIC is very good at avoiding 'ballooning', it can also lead to over-smoothing, to which the other Bayesian methods are less prone. If used appropriately, which is difficult to judge without prior knowledge, cross-validation can be very effective at preventing 'ballooning', but it has a rather high computational cost.

Although our focus was on spatiotemporal models, the methods can also be applied to other smoothing problems in which the use of a single smoothing parameter is appropriate, possibly after rescaling of parts of the penalty or adjustment of the number of basis functions.

The use of splines is not the only way of constructing spatiotemporal models for the contamination of groundwater. A particularly attractive alternative would be the use of a model based on the underlying physical processes. However, such models require a good understanding of the geology of the site, which in turn requires additional information that is not always readily available.

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In our experience the problem of 'ballooning' is not limited to splines. 'Ballooning' can also occur when using other techniques such as kriging with a Matérn covariance. In the latter case, the severity of the problem of 'ballooning' depends on how the shape parameter of the covariance function is chosen, and also whether the data adhere to the implied assumptions of stationarity and isotropy. The P-spline based approach has the key advantage of not requiring the latter assumption.

The methodology set out above is implemented in GWSDAT, a fully automatic tool for the analysis of groundwater contaminants developed by Shell Global Solutions (Jones *et al.*, 2014).

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APPENDIX A: COMPUTATIONAL DETAILS

Without loss of generality, we shall assume that $\mathbf{D}$ has full row rank. If not, replace $\mathbf{D}$ by the non-zero rows of $\mathbf{R}$ from a QR decomposition $\mathbf{D} = \mathbf{QR}$.

If the differencing matrix $\mathbf{D}$ is of full column rank, we could reparametrise the problem using $\tilde{\boldsymbol{\alpha}} = \mathbf{D}\boldsymbol{\alpha}$ yielding the ridge-regression problem

$$\mathbf{y}|\tilde{\boldsymbol{\alpha}} \sim \mathcal{N}(\mathbf{B}\mathbf{D}^{-1}\tilde{\boldsymbol{\alpha}}, \sigma^2\mathbf{I}), \qquad \tilde{\boldsymbol{\alpha}} \sim \mathcal{N}(\mathbf{0}, \sigma^2\lambda^{-1}\mathbf{I})$$

which can be solved independently of λ using a singular value decomposition (see e.g. Golub and Van Loan, 1996).

However, in P-spline problems, the matrix $\mathbf{D}$ does not have full column rank. Thus, we have to identify the subspace of the covariate space on which the penalty does not act. This can be carried out using a QR decomposition of $\mathbf{D}' = (\tilde{\mathbf{Q}}_1, \tilde{\mathbf{Q}}_2)\begin{pmatrix}\tilde{\mathbf{R}}_1\\ \mathbf{0}\end{pmatrix}$. Setting $\tilde{\boldsymbol{\alpha}}_1 = \tilde{\mathbf{R}}_1'\tilde{\mathbf{Q}}_1'\boldsymbol{\alpha}$, $\tilde{\boldsymbol{\alpha}}_2 = \tilde{\mathbf{Q}}_2'\boldsymbol{\alpha}$, $\tilde{\mathbf{B}}_1 = \mathbf{B}\tilde{\mathbf{Q}}_1\tilde{\mathbf{R}}_1'^{-1}$, $\tilde{\mathbf{B}}_2 = \mathbf{B}\tilde{\mathbf{Q}}_2$ and $\tilde{\mathbf{D}}_1 = \tilde{\mathbf{R}}'$ allows rewriting the problem as

$$\mathbf{y}|\tilde{\boldsymbol{\alpha}}_1, \tilde{\boldsymbol{\alpha}}_2 \sim \mathcal{N}(\tilde{\mathbf{B}}_1\tilde{\boldsymbol{\alpha}}_1 + \tilde{\mathbf{B}}_2\tilde{\boldsymbol{\alpha}}_2, \sigma^2\mathbf{I}), \qquad \tilde{\boldsymbol{\alpha}}_1 \sim \mathcal{N}(\mathbf{0}, \sigma^2\lambda^{-1}\mathbf{I}), \qquad p(\tilde{\boldsymbol{\alpha}}_2) \propto 1$$

This rotation of the variable space allows the regression coefficient to be split into two vectors: one, $\tilde{\boldsymbol{\alpha}}_1$, with a proper standard normal prior and one, $\tilde{\boldsymbol{\alpha}}_2$, with an improper flat prior. This can be interpreted as a mixed effects model, with $\tilde{B}_2$ being the design matrix of the fixed effects and $\tilde{B}_1$ being the design matrix of the random effects.

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Finally, we perform a rotation of the observation space, such that the design matrix of $\tilde{\boldsymbol{\alpha}}_2$ only has l non-zero rows, where l is the length of the vector $\tilde{\alpha}_2$. This is achieved by computing the QR decomposition of $\tilde{\mathbf{B}}_2 = (\breve{\mathbf{Q}}_1, \breve{\mathbf{Q}}_2)\begin{pmatrix}\breve{\mathbf{R}}_1\\ \mathbf{0}\end{pmatrix}$.

Considering the response $\breve{\mathbf{y}} = (\breve{\mathbf{y}}_1', \breve{\mathbf{y}}_2')' = (\breve{\mathbf{Q}}_1, \breve{\mathbf{Q}}_2)'\mathbf{y}$ as well as setting $\breve{\mathbf{B}}_{11} = \breve{\mathbf{Q}}_1\tilde{\mathbf{B}}_1$, $\breve{\mathbf{B}}_{21} = \breve{\mathbf{Q}}_2\tilde{\mathbf{B}}_1$ and $\breve{\mathbf{B}}_{12} = \breve{\mathbf{Q}}_1\tilde{\mathbf{B}}_2$ yields the equivalent model assumption

$$\begin{pmatrix}\breve{\mathbf{y}}_1\\ \breve{\mathbf{y}}_2\end{pmatrix}\Bigg|\, \tilde{\boldsymbol{\alpha}}_1, \tilde{\boldsymbol{\alpha}}_2 \sim \mathcal{N}\left(\begin{pmatrix}\breve{\mathbf{B}}_{11} & \breve{\mathbf{B}}_{12}\\ \breve{\mathbf{B}}_{21} & \mathbf{0}\end{pmatrix}\begin{pmatrix}\tilde{\boldsymbol{\alpha}}_1\\ \tilde{\boldsymbol{\alpha}}_2\end{pmatrix}, \sigma^2\mathbf{I}\right)$$

with the same priors for $\tilde{\boldsymbol{\alpha}}_1$ and $\tilde{\boldsymbol{\alpha}}_2$ as aforementioned. The posterior distribution of $\tilde{\boldsymbol{\alpha}}_1$ and $\tilde{\boldsymbol{\alpha}}_2$ given $\breve{\mathbf{y}}$ is a normal distribution, with the penalised least-squares estimates $\widehat{\tilde{\boldsymbol{\alpha}}_1}$ and $\widehat{\tilde{\boldsymbol{\alpha}}_2}$ as mean and unscaled covariance matrix

$$\begin{pmatrix}\breve{\mathbf{B}}_{11}'\breve{\mathbf{B}}_{11} + \breve{\mathbf{B}}_{21}'\breve{\mathbf{B}}_{21} + \lambda\mathbf{I} & \breve{\mathbf{B}}_{11}'\breve{\mathbf{B}}_{12}\\ \breve{\mathbf{B}}_{12}'\breve{\mathbf{B}}_{11} & \breve{\mathbf{B}}_{12}'\breve{\mathbf{B}}_{12}\end{pmatrix}$$

Its determinant can be shown to be

$$\det(\breve{\mathbf{B}}_{21}'\breve{\mathbf{B}}_{21} + \lambda\mathbf{I}) \cdot \det(\breve{\mathbf{B}}_{12}'\breve{\mathbf{B}}_{12})$$

by using the Leibnitz formula and exploiting the fact that by construction, $\breve{\mathbf{B}}_{12}$ is invertible. The penalised least squares estimate can be found by exploiting the fact that the residual corresponding to $\breve{\mathbf{y}}_1$ can be set to $\mathbf{0}$ by setting

$$\widehat{\boldsymbol{\alpha}_2} = \breve{\mathbf{B}}_{12}^{-1}\left(\breve{\mathbf{y}}_2 - \breve{\mathbf{B}}_{11}\widehat{\tilde{\boldsymbol{\alpha}}_1}\right)$$

Thus, $\widehat{\tilde{\boldsymbol{\alpha}}_1}$ can be found by considering the reduced ridge regression problem involving only only the coefficient $\tilde{\boldsymbol{\alpha}}_1$:

$$\breve{\mathbf{y}}_2|\tilde{\boldsymbol{\alpha}}_1 \sim \mathcal{N}(\breve{\mathbf{B}}_{21}\tilde{\boldsymbol{\alpha}}_1, \sigma^2\mathbf{I}), \qquad \tilde{\boldsymbol{\alpha}}_1 \sim \mathcal{N}(\mathbf{0}, \sigma^2\lambda^{-1}\mathbf{I})$$

This is a ridge regression problem that can be solved using the singular value decomposition of $\breve{\mathbf{B}}_{21} = \mathbf{U}\mathbf{L}\mathbf{V}'$ yielding (see e.g. Golub and Van Loan, 1996)

$$\widehat{\tilde{\boldsymbol{\alpha}}_1} = \mathbf{V}\left(\frac{\mathrm{diag}(\mathbf{L}) \odot \mathbf{U}'\breve{\mathbf{y}}_2}{\mathrm{diag}(\mathbf{L})^2 + \lambda}\right)$$

where $\odot$ stands for element-wise multiplication and the fraction, sum and power are to be interpreted element-wise. The singular value decomposition can also be used to compute the determinant

$$\det(\breve{\mathbf{B}}_{21}'\breve{\mathbf{B}}_{21} + \lambda\mathbf{I}) = \det(\mathbf{L}'\mathbf{L} + \lambda\mathbf{I}) = \prod_i (L_{ii} + \lambda)$$

Up to the computation of the final singular value decomposition, all operations are performed by exploiting the sparse structure of the matrices, which allows the use of standard sparse matrix libraries. It is also worth noting that it is not necessary to compute a full Singular value decomposition (SVD). It is enough to tridiagonalise the matrix $\breve{\mathbf{B}}_{21}$ (see e.g. Eldén, 1977; Wood, 2000). Exploiting this allows to further speed-up the algorithm.

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Appendix G-3: Supporting GWSDAT Reference
Groundwater Spatiotemporal Data Analysis Tool (GWSDAT)

Document Title

Analyzing Groundwater Quality Data and Contamination Plumes with GWSDAT

Citation

Jones, W.R., Spence, M.J., and Bonte, M. (2015). *Analyzing Groundwater Quality Data and Contamination Plumes with GWSDAT*. *Groundwater*, 53(4), 513-514. DOI: 10.1111/gwat.12340.

Purpose of Inclusion

This document is provided as supporting technical literature describing the GroundWater Spatiotemporal Data Analysis Tool (GWSDAT) utilized in this Addendum.

The article summarizes GWSDAT functionality and discusses application of the software for:

- Groundwater monitoring data evaluation;
- Contamination plume characterization;
- Plume stability assessment;
- Spatiotemporal smoothing of groundwater concentration data;
- Evaluation of plume area, plume concentration, and plume mass metrics.

GWSDAT was used in this Addendum to evaluate arsenic occurrence within groundwater, develop plume maps, assess plume evolution, and calculate plume metrics discussed in Sections 5 and 7.

Groundwater

Technology Spotlight/ Yu-Feng Forrest Lin, Technology Editor

Analyzing Groundwater Quality Data and Contamination Plumes with GWSDAT

Wayne R. Jones[1], Michael J. Spence[2], and Matthijs Bonte[2]

The Groundwater Spatiotemporal Data Analysis Tool (GWSDAT) is a user-friendly, open source software tool used to analyze and report trends in groundwater quality monitoring data. GWSDAT is based on the open source statistical programming language R and Microsoft Excel. GWSDAT's primary use is for interrogation and interpretation of groundwater monitoring data derived from contaminated sites. It has specific functionality for analyzing dissolved-phase concentration and light nonaqueous phase liquid (LNAPL) thickness trends and spatiotemporal smoothing to delineate dynamic contamination plumes. The software can handle large data sets with multiple monitoring locations, variable sampling events, and differing chemical constituents. GWSDAT has been used extensively in the assessment of soil and groundwater conditions at numerous assets around the world, including retail and manufacturing sites. The following are key benefits and value-added features of GWSDAT:

- Improved data transparency to design and optimize groundwater monitoring or remediation programs;
- Early identification of new releases, migration pathways, the need for corrective action, and stable or declining trends that may aid in site closure determinations;
- Clarity on the relations between dissolved solute concentrations, LNAPL thicknesses, and groundwater elevation; and
- Rapid interpretation of complex data sets from large monitoring networks (e.g., refineries, terminals)

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The main functionalities of GWSDAT include trend analyses, data smoothing, spatiotemporal smoothing, and determination of contamination plume characteristics. Groundwater quality observation data for individual monitoring points can be fitted to a linear or log linear regression model, where the significance of a trend can be determined by using the Mann-Kendall approach, which is widely used for trend detection in groundwater and surface water studies (Bouza-Deaño et al. 2008; Wahlin and Grimvall 2010). Groundwater concentration maps are developed by using a spatiotemporal solute concentration smoother derived from a penalized-splines nonparametric regression (Eilers and Marx 1996). The simultaneous statistical smoothing over space and time generally provides a more accurate, more consistent illustration of a contamination plume when compared against contour maps of individual sampling rounds (Cressie and Wikle 2011). In general, the spatiotemporally smoothed plume will be less biased by missing sampling rounds or missing data within sample rounds (Cressie and Wikle 2011). GWSDAT calculates a number of quantitative plume metrics by using the Ricker (2008) method describing the temporal plume behavior based on the contaminant mass of the plumes, average concentration, plume footprint area, and location of the center of mass. All of these are based on a spatial integration of the plume concentrations above a predefined concentration threshold. Further details on the input and output features of GSWDAT can be found in the supporting information (Appendixes S1 and S2). Additional information on each of the methodologies (including descriptions of the R packages used, but excluding the plume metrics, which are added in the latest version of GWSDAT) can be found in Jones et al. (2014).

Software Availability

- Hardware requirements: Standard PC 1 GB RAM or more, 32-bit or 64-bit processor.
- System requirements: Microsoft Windows (XP or later)
- Software requirements: R version 3.0.0 (www.r-project.org) or higher and Microsoft Excel 2003 or higher.

- Program size: 13 MB
- Availability: Free from www.claire.co.uk/GWSDAT and http://www.api.org/GWSDAT

Acknowledgments

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Supporting Information

Additional Supporting Information may be found in the online version of this article:

Appendix S1. GWSDAT Input
Appendix S2. Results and Reporting

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Appendix G-4: Supporting GWSDAT Case Studies and Applications
Practical Applications of GWSDAT

Document Title

Groundwater Spatiotemporal Data Analysis Tool: Case Studies, New Features and Future Developments

Citation

Jones, W.R., Rock, L., Wesch, A., Marzusch, E., and Low, M. (2022). *Groundwater Spatiotemporal Data Analysis Tool: Case Studies, New Features and Future Developments*. *Groundwater Monitoring & Remediation*, 42(3), 14-22.

Purpose of Inclusion

This document is provided as supporting technical literature describing practical applications of GWSDAT.

The publication presents multiple groundwater case studies demonstrating use of GWSDAT for:

- Plume characterization;
- Plume stability evaluation;
- Groundwater trend analysis;
- Monitoring network assessment;
- Monitoring network optimization;
- Regulatory decision support.

The paper demonstrates application of GWSDAT to a variety of contaminated groundwater sites and illustrates use of the software as a groundwater plume characterization and monitoring evaluation tool.

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Guest Editorial

Groundwater Spatiotemporal Data Analysis Tool: Case Studies, New Features and Future Developments

by Wayne R. Jones, Luc Rock, Alexandra Wesch, Emanuel Marzusch and Marnie Low

Abstract

Groundwater Spatiotemporal Data Analysis Tool (GWSDAT) is an open-source, user-friendly, software application for the visualization and interpretation of groundwater monitoring data. Since its first release, over 8 years ago, it has become increasingly well established and is now a globally adopted tool. Despite its widespread use, there is little published material considering the application of GWSDAT. The primary purpose of this article is to demonstrate the different benefits of using GWSDAT by considering a cross-section of real case studies. The first case study is an example of using GWSDAT to provide evidence to support a proposal to reduce sampling frequency. The next case study discusses the use of GWSDAT to support the recommendation for site closure. The third case study considers how GWSDAT can be used to identify gaps in a monitoring network. The final case study reports on the application of the, newly introduced, well redundancy analysis feature in GWSDAT. Finally, the road map for future developments in the optimization of monitoring network and the motivation for doing this in a spatiotemporal framework is discussed

Introduction

The GroundWater Spatiotemporal Data Analysis Tool (GWSDAT) is a user-friendly, open-source software tool used to analyze and report trends in standard groundwater quality monitoring data sets. It includes functionality to identify dissolved concentration trends and groundwater elevation fluctuations in individual wells together with the estimation of groundwater flow direction and strength. GWSDAT can also display light nonaqueous phase liquid (LNAPL) thickness trends. The most unique aspect of GWSDAT is the application of a spatiotemporal smoothing model where the spatial and temporal components of the solute concentration data are modeled jointly in a single modeling framework (Jones et al. 2014). This challenges industry convention where the most common practice is to apply a statistical model to separate monitoring events (e.g., Ricker 2008; Gong et al. 2014; Belkhiri et al. 2020) or apply a single spatial model to a data set consisting of multiple time steps within a certain time period (binning) (e.g., Aziz et al. 2003). McLean et al. (2019) demonstrated that the simultaneous statistical smoothing of both spatial and temporal components provides a clearer and more insightful interpretation of the groundwater monitoring site solute characteristics than would otherwise be gleaned from analyzing these two components separately. To the best of our knowledge, there is no other open-source "off-the-shelf" tool that use a spatiotemporal model for concentration data. The application of spatiotemporal modeling in recent literature is mostly applied to groundwater elevation rather than solute concentrations (e.g., Ruybal and Hogue 2019).

It has now been over 8 years since the first version of GWSDAT was made publicly available through the American Petroleum Institute (www.api.org/GWSDAT) and Contaminated Land Applications in Real Environments (www.claire.co.uk/GWSDAT) websites. Since then, it has continued to be maintained and developed as an open-source collaborative project between Shell plc and the University of Glasgow. The second major release included diagnostic tools to estimate plume mass, area, and average concentration through time (Ricker 2008; Jones et al. 2015). The third major release replaced the old graphical user interface with a web-based architecture which paved the way for the development of an online version (www.gwsdat.net). Users, most commonly for computational performance or data security reasons, can still opt for local installation. As well as a host of other updates, the most recent release (version 3.1) includes well redundancy analysis (http://gwsdat.net/gwsdat_manual/). This allows the user to conveniently

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drop a well or a combination of wells from the analysis and investigate the resultant impact on the estimated site plume dynamics. The primary intent of this tool is to understand which wells may have the most influence and provide supporting evidence that the conclusions of the analysis would not be significantly different with the omission of certain wells.

Due to its open-source design, GWSDAT has now become a standard, globally adopted software application in the groundwater monitoring industry. GWSDAT has already been downloaded over 10,000 times and is used by many engineers, environmental regulators, and students around the world. While literature is available on the underlying GWSDAT methodology (Jones et al. 2014; Molinari 2014; Evers et al. 2015; Jones et al. 2015; McLean 2018), little is available on real examples where GWSDAT has been applied. A common feedback from new and more experienced users has been the lack of case studies illustrating the use/applicability of GWSDAT. The main purpose of this article is to address this imbalance and give details on several case studies. The concluding section of this article is dedicated to the future direction of GWSDAT.

Case Studies

GWSDAT provides a variety of options to assess spatial and temporal trends within a groundwater monitoring dataset. It allows to display groundwater flow direction and relative magnitude, generate spatial maps of concentration data at specified time intervals from day, to month, to quarter, to year. Plume diagnostics is another functionality offered, which shows the temporal evolution of plume mass, area, and average concentration over time. The newest functionality added in version 3.10 is well redundancy analysis, which allows the user to take out one or more than one well from the dataset and re-evaluate spatial and temporal trends based on the reduced dataset and compare it to the original complete dataset. Based on a review of 76 sites covering 10 different countries covering the continents of Asia, Africa, and Europe (data not included), it was determined that for the majority (>80%) of the sites GWSDAT is used for concentration trend and plume stability analysis, as expected based on the design of the software. For about 20% of the sites included in the review, GWSDAT was primarily used to assess groundwater flow direction. GWSDAT was also specifically used to support (1) optimization of sampling frequency in about 20% of the cases, (2) site characterization and sampling gap assessment in about 30% of the cases, and (3) optimization of the analytical suite in about 5% of the cases. This snapshot of GWSDAT usage across almost 80 sites from around the world highlights the versatility and applicability of GWSDAT to support groundwater investigations.

To illustrate the functionalities of GWSDAT, four case studies, based on anonymized data, are presented below covering small (e.g., retail) as well as large (e.g., depot) sites (Table 1). All sites used for the case studies are within a non-fractured siliciclastic geological setting. GWSDAT's applicability in fractured geological setting is limited. The tool does not consider preferential flow-pathways, which are critical to understand in a fractured setting. Nevertheless, in a fractured geological setting, GWSDAT can still provide an efficient tool (1) to assess temporal changes and threshold exceedances within individual wells and (2) to generate spatial maps using the scaled circle plot functionality to display observed solute concentrations at the various sampling locations, at the click of a button.

Case Study #1

The objective of using GWSDAT for case study #1 was to demonstrate plume stability with the aim to optimize the sampling frequency interval. Case study #1 is surrounded by residential and commercial land use and is located nearby surface water bodies. In the mid-1990's during a site investigation, an impact with primarily BTEX was observed, which was only partially remediated via soil excavation and replacement. In the early 2000's, groundwater monitoring was implemented, and additional field investigations for further site characterization and adjustments to the groundwater monitoring network were completed in following years. BTEX concentration in groundwater at this site are impacted by fluctuations in the groundwater level, and the source of the contamination is residual contamination in the unsaturated and saturated zones. Data have shown that the plume has migrated beyond the site boundary along the groundwater flow direction (Figure 1).

Groundwater sampling at this site ranged from quarterly to bi-annual in the past. After recent completion of bi-annual sampling at 17 locations, a change in sampling frequency to annual was proposed to the regulator based on observations related to the decrease in the BTEX plume over time. The recommendation of changing the sampling frequency, which was approved by the regulator, was supported through the

Table 1

Summary of case studies

Site #	Small (e.g., retail) or large (e.g., depot) site	Objective of using GWSDAT	Site setting	Geological setting
1	Small	Plume stability—optimization in sampling interval	Residential commercial	
2	Small	Plume reduction—close-out of groundwater monitoring	Residential commercial	*Siliciclastics * non-fractured
3	Small	Plume stability—gap in monitoring network, earlier adoption of tool	Residential commercial recreational	
4	Large	Well redundancy analysis	Industrial	

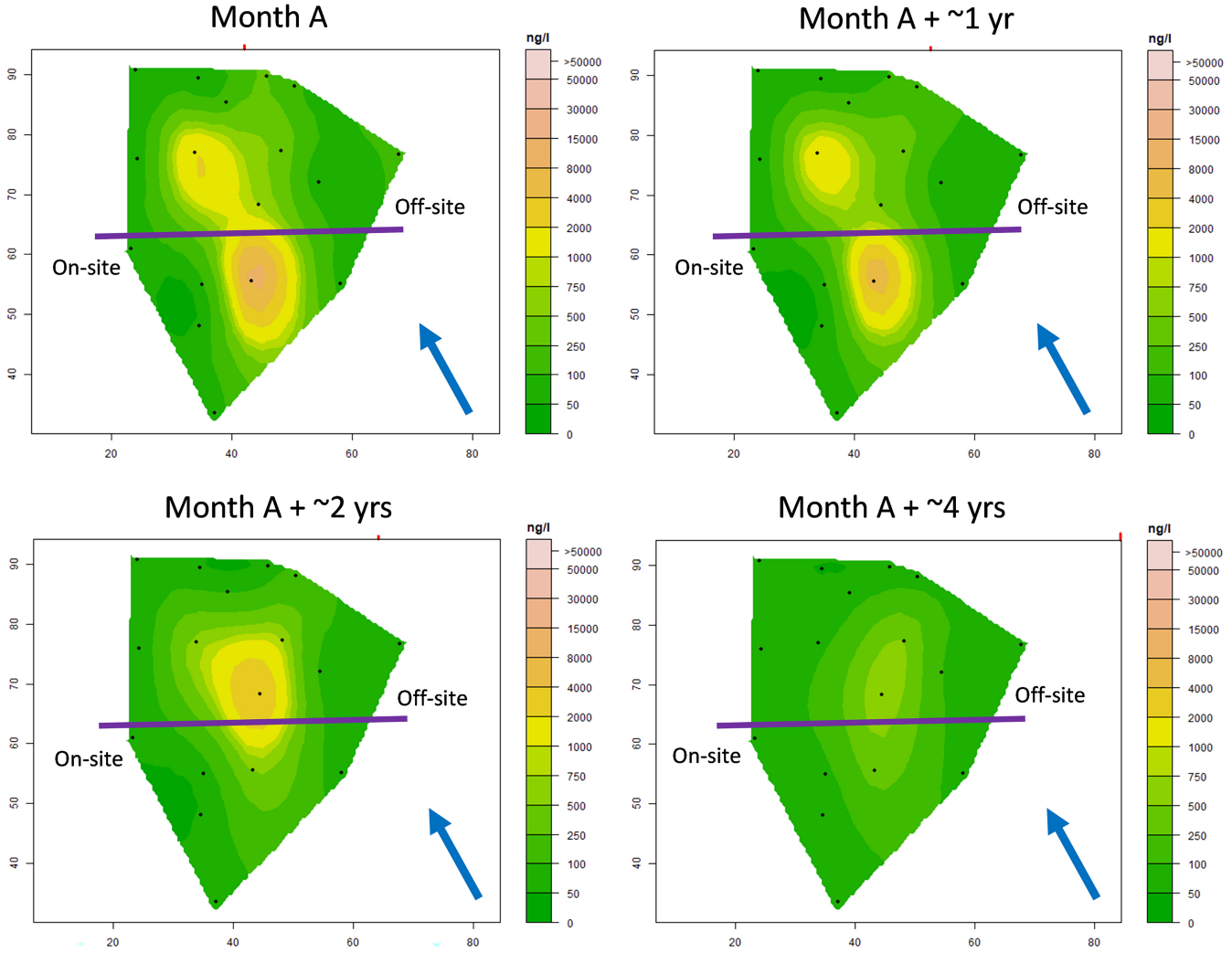


Figure 1. Time slices of the spatiotemporal plots showing historical BTEX plume evolution at case study site #1 over a four-year period. *Notes*: black dots refer to well sampling locations; site boundary shown by purple line; general groundwater flow direction at the site indicated by blue arrow.

use of GWSDAT to showcase the spatial–temporal evolution of the BTEX plume over time (Figure 1). A reduction in BTEX concentrations within the area of investigation can be observed over time. In addition, an assessment of the plume diagnostics functionality offered by GWSDAT also clearly indicated a decreasing benzene plume for a threshold value of 1 µg/L over time (Figure 2).

Case Study #2

Case study #2 falls within the category of a small site. It is in an area with residential and commercial land use, and near a drinking water protection zone. This site has been in operation for over 50 years. In the late 1990's, a site investigation determined an impact at this site by BTEX and TPH. Groundwater sampling was conducted for further site characterization, additionally, soil excavation and replacement were completed at the site. Residual BTEX contamination, however, remained at this site due to safety consideration during the remedial activities. This was documented based on verification samples taken along the excavated surfaces. Consequently, a hydraulic groundwater remediation technology was implemented for a few years. During a site investigation in the 2000's, elevated BTEX concentrations in soil and groundwater were detected, and the regulator requested further groundwater monitoring.

After completion of bi-annual sampling of groundwater at five locations over a 5-year period, it was recommended to stop the groundwater monitoring activities. Note that investigations and monitoring activities at this site go back more than 20 years. GWSDAT (Figure 3) was included in the data analysis and reporting to the regulator to demonstrate that there is no spread of the residual contamination, and that the pathway 'soil to groundwater' is not active. Within GWSDAT, it is possible to graphically represent the spatio-temporal plots using various plot types. In this case, the plot type "conc-terrain circles" was used to represent measured concentrations at each sampled well using scaled circles (Figure 3). This visual representation, obtained at the "click-of-a button" facilitated the communication to the regulator of the decreasing concentrations to below detection limit over time across the study area. After evaluation of the monitoring report, which included data over the last 5 years prior to stoppage in monitoring activities, the regulator approved of the recommendation.

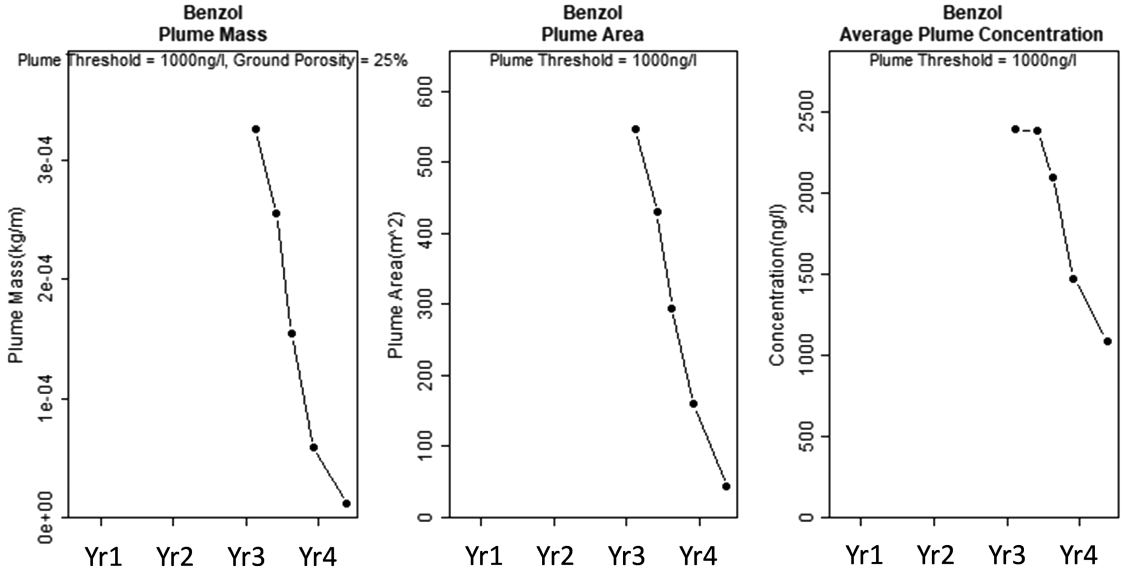


Figure 2. Plume diagnostics for benzene with a chosen threshold value of 1 µg/L at case study #1. Nb: Yr refers to year.

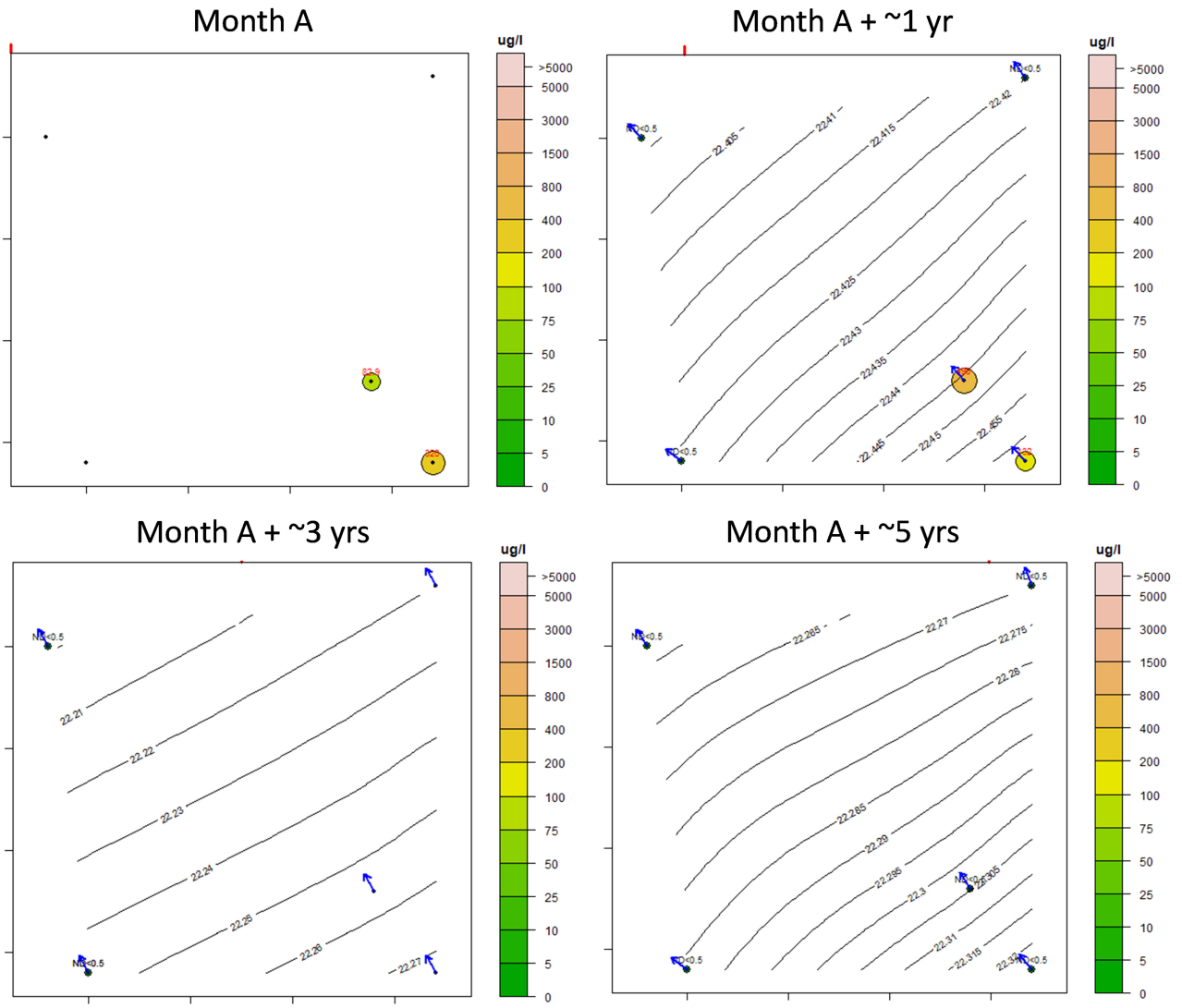


Figure 3. Time slices of the spatiotemporal plot (using plot type conc-terrain circles) showing historical BTEX concentration at case study site #2 over a five-year period. *Notes*: black dots represent well sampling locations; groundwater contours and groundwater flow direction at a specific well location also shown, no data on GW level were collected for data shown under "month A" plot. Size of circles scales with log of measured concentration with concentration range given in color key to right of graph.

Case Study #3

Similar to case studies #1 and #2, case study #3 refers to a small site. This site is surrounded by residential, recreational, and commercial land use. In the 1990's, several soil and groundwater investigations including remedial activities (such as soil excavation and replacement, as well as hydraulic measures) were undertaken at this site. Some residual contamination, however, remained at this site due to safety consideration during the remedial activities, like case studies #1 and #2. In the 2000's, additional site characterization work was completed in addition to installing new groundwater monitoring wells. Since about 2012, a regular groundwater monitoring program continued at this site to assess the evolution of TPH, BTEX, and MTBE concentrations in the monitoring wells. While groundwater monitoring data were collected over several years, GWSDAT was not part of the data interpretation workflow process for many years.

To illustrate the use of GWSDAT at this site for plume stability assessment, data for BTEX are presented covering a period of 8 years of groundwater monitoring data. Note that GWSDAT was used the first time when compiling the annual reporting for the groundwater monitoring events related to years 6 and 7 of the data presented in this case study. During compilation and assessment of the monitoring data from years 6 and 7, which integrated data from previous sampling campaigns, the following observation was made. While existing downstream wells (A, B) had no concentrations above the defined threshold, and were for almost every sampling event below the detection limit (Figure 4), there is a gap in the monitoring network in the downstream direction of groundwater flow. No wells were present in the downstream direction of wells C and D, which had concentrations above the defined threshold, especially well C (Figure 4). Two new wells were drilled, indicated by the red circles on Figure 4, during year 8, about a year after the first integration of GWSDAT in the data evaluation. The regulator agreed with the recommendation for the installation of additional groundwater monitoring wells. A sampling event after the installation of the additional groundwater monitoring wells indicated that BTEX concentrations in these wells were below detection limit (Figure 5). An evaluation of the GWSDAT spatiotemporal plots from years prior to year 8 predicted that concentrations would likely be below detection limit at the two

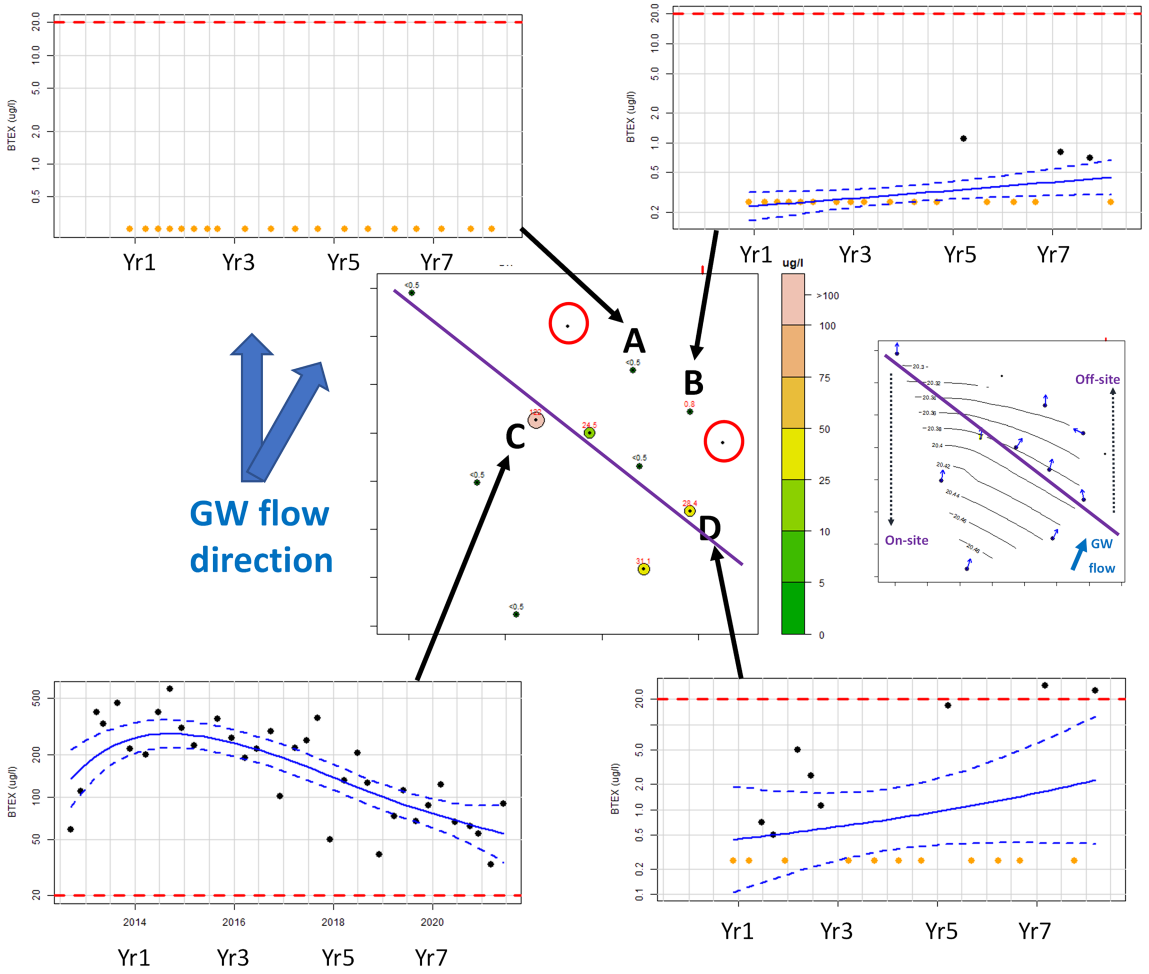


Figure 4. Time slice of spatiotemporal plot (using plot type conc-terrain circles, central plot) showing BTEX concentration including plots showing temporal evolution of concentrations at a select number of wells for case study site #2. Notes, temporal plots: red dashed line refers to user-defined value of threshold concentration value, black dots refer to actual measured concentration values, orange dots refer to non-detect data, blue solid line refers to concentration trend smoother values including upper and lower 95% confidence interval around the estimate (dashed blue line); spatial plot: purple solid line represents site boundary. Insert graph (middle right) shows groundwater contour and flow directions, including site boundary (purple solid line) and location of wells sampled (black dots).

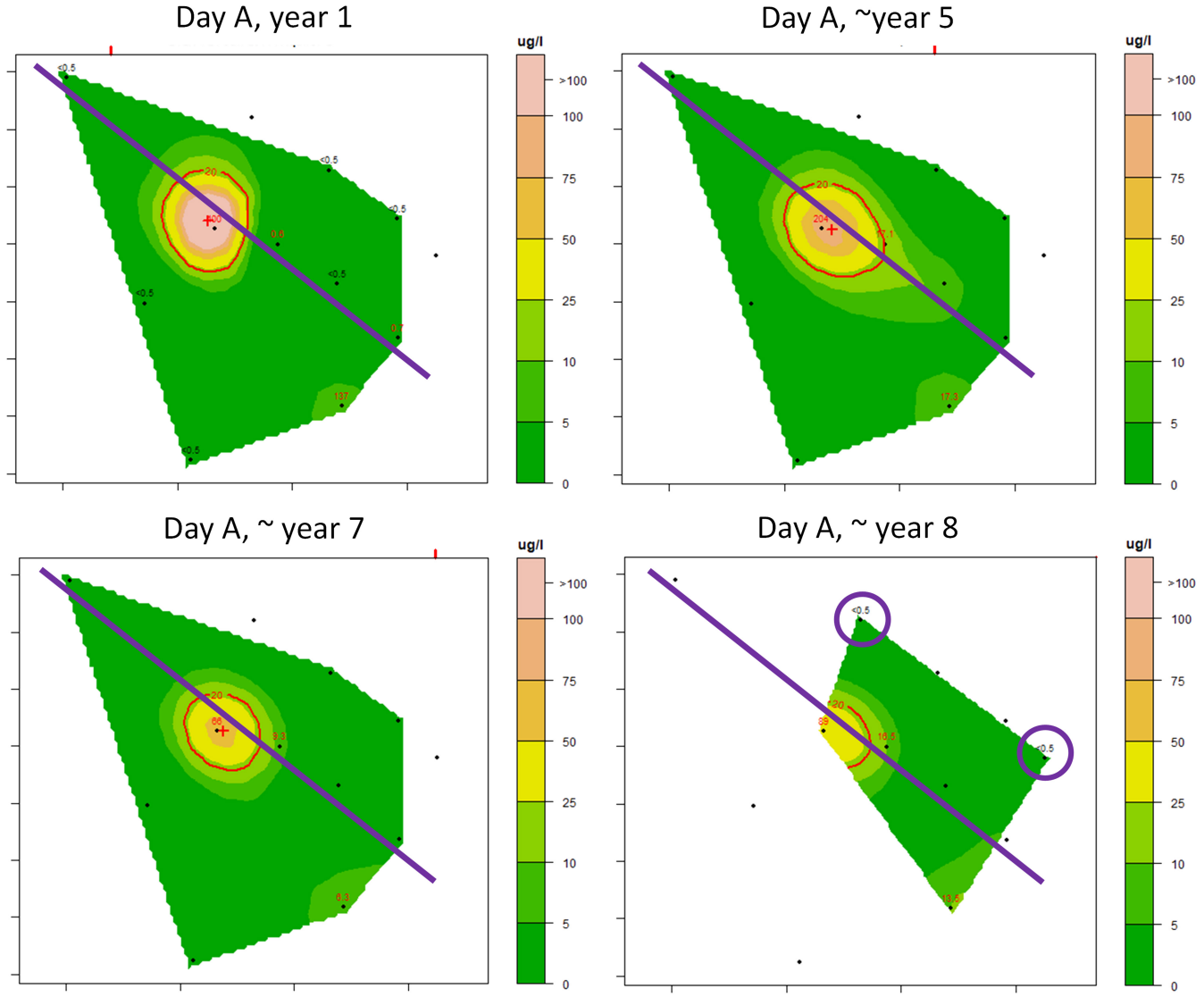


Figure 5. Time slices of the spatiotemporal plots showing historical BTEX plume evolution at case study site #3 over an eight-year period. Notes: red circle refers to predicted plume outline based on a threshold value of 20 µg/L; purple circles indicate location of two new monitoring wells installed in year 8 after evaluation of the monitoring results from years 6 and 7 with integration of monitoring results from previous years; Purple solid line represents site boundary (as per Figure 4 caption). GWSDAT predicted that concentrations in the two new wells will likely be below detection limit when looking at available historic data.

new locations chosen (Figure 5). Hence, this case study showcases that an earlier integration of GWSDAT could potentially have optimized site understanding and decision making around well sampling network and frequency earlier during the lifecycle of this project, which is still on-going. In future groundwater monitoring campaigns, GWSDAT will be an integral part of visualizing and assessing plume evolution/stability over time at this site. For instance, when using the plume diagnostic functionality, a clear trend of a decreasing BTEX plume at this site can be observed over time (Figure 6).

Case Study #4

The last case study presented in this paper relates to the application of the newly introduced well redundancy feature to a large monitoring site. This functionality allows the user to investigate the impact of omitting a well or a combination of wells and investigate the resultant impact on the estimated site plume dynamics. This is performed by independently applying the spatiotemporal smoothing model (Jones et al. 2014) to both the complete and the reduced solute concentration data sets and comparing the results. The site considered is in an industrial area and has been operational for several decades. Over the years, a few impacts to soil and groundwater have occurred, and a large network of groundwater monitoring wells exists at this site (several 10's of wells). To assess the effectiveness of the groundwater monitoring network, GWSDAT's new functionality of well redundancy analysis is being used. Three examples from this site will be presented below to cover the following two scenarios of groundwater well use:

- Scenario 1: Required wells for plume delineation
- Scenario 2: Redundant wells for plume delineation

At this site, groundwater is impacted by various CoPCs (constituents of potential concern). The examples provided here will be based on BTEX. Figure 7 provides an example

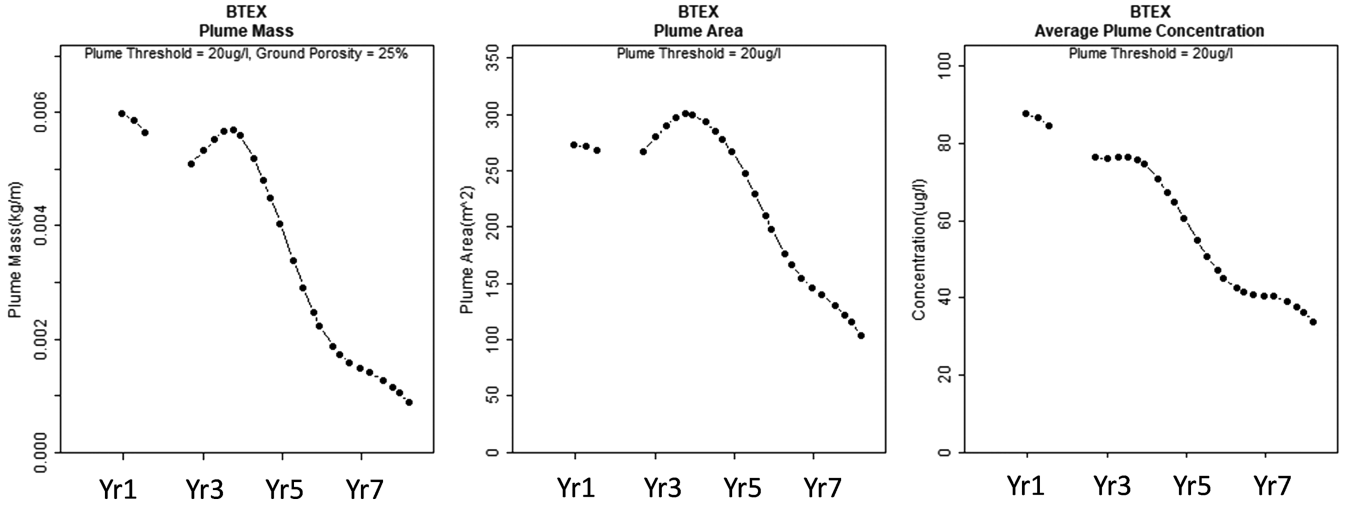


Figure 6. Plume diagnostics for BTEX with a chosen threshold value of 20 µg/L at case study #3. Nb: Yr refers to year.

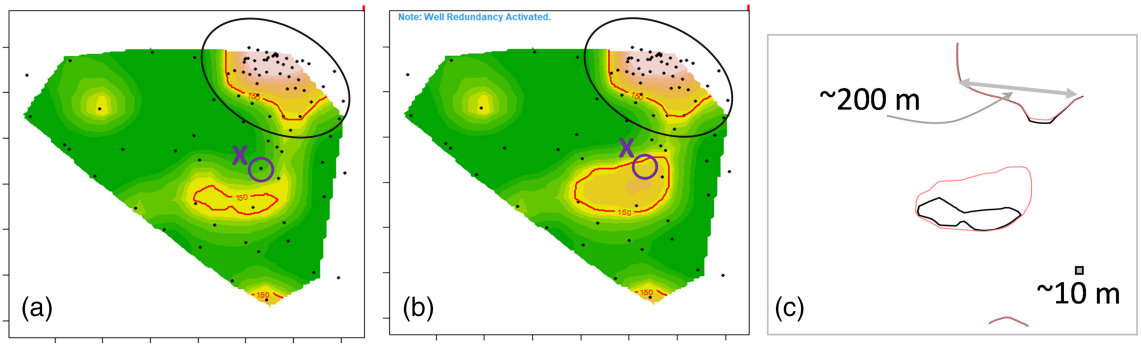


Figure 7. Time slices of a spatiotemporal plot for predicted BTEX plume delineation at case study site #4 with (a) all available data used in analysis and (b) with well redundancy functionality activated (well X removed from analysis). Red outlines show a user-chosen BTEX concentration contour to showcase. (c) Comparison of plume delineation outline (based on chosen concentration contour) for complete dataset (black line) versus reduced dataset (light red line). *Note*: black ellipsoid shows areal extent covered in Figure 8.

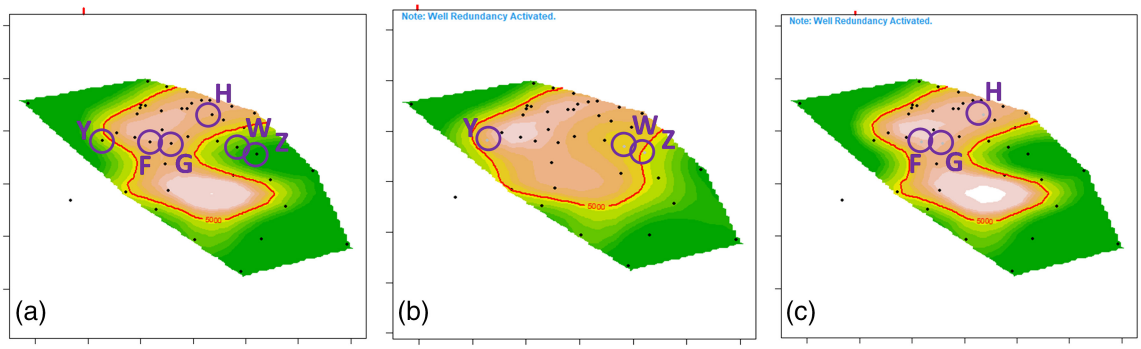


Figure 8. Time slices of a spatiotemporal plot for predicted BTEX plume delineation at case study site #4 with a) all available data used in analysis, and with well redundancy functionality activated for (b) wells Y, W, Z removed and (c) wells F, G, H removed from analysis). *Note*: red outline shows a user-chosen BTEX concentration contour to showcase the impact on plume delineation by removing wells from the data analysis; BTEX concentration below the user-chosen contour are shown in "yellow-green" colors, while concentration above are shown in orange to white colors.

of scenario 1. Figure 7a is a time-slice of the spatiotemporal model illustrating the modeled BTEX plume extent across a part of the site considering all wells available in the dataset. Figure 7b is a time-slice of the spatiotemporal model illustrating the modeled BTEX plume extent across a part of the site with the well redundancy functionality being active. As can be seen, removal of well X highlighted on the Figures 7a and b has a clear impact on the geometry of the plume.

For large sites, one needs to consider that at times there is a need to split the dataset into subsets. This is illustrated in Figure 8, which provides an example for scenario 1 (Figure 8b) and scenario 2 (Figure 8c). Figure 8 covers part of the area

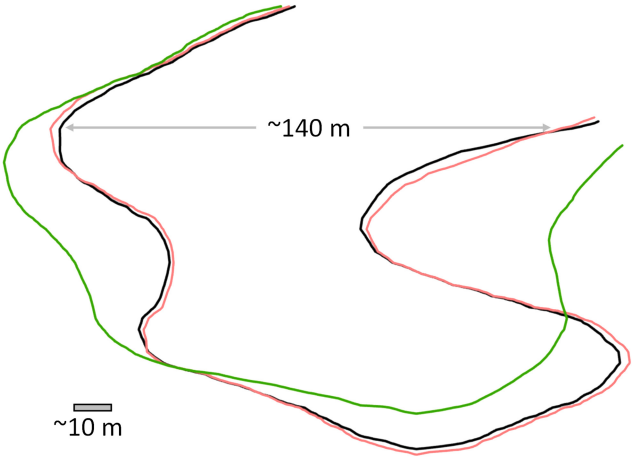


Figure 9. Comparison of plume delineation outline (based on user-chosen BTEX concentration contour) for complete dataset (black line) versus reduced datasets considered in Figure 8b (green line) and Figure 8c (light red line).

included in Figure 7 to get a more detailed understanding of the BTEX plume in that part of the site. A qualitative comparison between Figures 8a–c, highlights that wells Y, W, and Z are important for horizontal plume delineation at this site; while wells F, G, and H could potentially be removed from monitoring activities, as they have little impact on overall understanding of plume geometry (Figure 9).

Future Developments

The major area for future development is the addition of monitoring network optimization tools in GWSDAT. The aim is to support users to develop optimized groundwater monitoring strategies to create datasets that fully support site management decisions and requirements while minimizing exposure, time, and expense associated with collecting and interpreting data. Traditionally, within the environmental monitoring industry, network optimization decision support tools have predominantly been designed from either a spatial (e.g., kriging) or temporal perspective—see, for example, Aziz et al. (2003) and Cameron and Hunter (2002). These tools do not explicitly model the interaction effects across both spatial and temporal components. McLean et al. (2019) demonstrated that spatiotemporal modeling methods result in clearer more accurate plume estimations. This means that significantly smaller sample sizes can be used while retaining estimation accuracy. Hence, this observation together with the body of research in McLean (2018) provides a clear road map for additional integration of spatiotemporal network optimization tools into GWSDAT.

The well redundancy tool released in version 3.1 of GWSDAT, and illustrated in case study #4, is the first step on this journey of expanding GWSDAT's functionality for the application to network optimization. This functionality allows the user to conduct a "with and without" scenario analysis on a user-selected set of wells. Future versions will offer users more assistance by providing a list of wells ordered by an analytical assessment of which may be the most suitable for the omission. Going further forward, it is planned to complement well redundancy analysis with functionality to investigate the benefit of additional wells. This will involve optimally augmenting the existing network with new well locations such as to minimize the uncertainty in monitoring goals, for example, estimated plume extent, area, and mass.

The remaining piece of the road map to be implemented is decision support tools for efficient monitoring well sampling schemes which maximize information extraction while minimizing sampling effort. Once again, the literature in this area is primarily concerned with spatial design arguments, for example, Diggle and Lophaven (2006). The adoption of sampling design principles that accommodate the spatiotemporal nature of the data into GWSDAT will lead to even greater information extraction efficiency than that described in McLean et al. (2019). One such intuitive example of a spatiotemporal design is to sample, for instance, half of the wells spread out across the site for good spatial coverage in one sampling round and to sample the complement of these in the next sampling round. Such a design coupled with a spatiotemporal model would borrow and pool information from the combination of most recently sampled locations, both spatially and temporally, leading to good accuracy with reduced sampling effort.

Shell plc and the University of Glasgow continue to collaborate on developing new and innovative methodologies in the field of monitoring network optimization. Some aspects of this cutting-edge area of research are highly technical and consequently may not be immediately intuitive to understand as compared to, say, leave-well-out redundancy arguments. These techniques could therefore potentially be perceived as "black-box" in nature and lead to a lack of trust and consequently a lack of adoption by practitioners and regulators. To mitigate this risk the developers of GWSDAT plan to continue to work in an open manner and publish the underlying methodologies in peer-reviewed journals while always making the code open-source and completely transparent.

Acknowledgments

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Disclosure

The authors declare no competing interests.

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Alexandra Wesch *works as a project leader for Arcadis Germany GmbH. Her focus is on the assessment and remediation of soil and groundwater impacts. Before joining the Oil & Gas department of Arcadis in 2017, she completed her master's degree in geosciences with a focus on soil science at Leibniz University Hannover. She can be reached at the Arcadis Hannover office, Podbielskistraße, 30,659 Hannover, Germany, alexandra.wesch@arcadis.com.*

Emanuel Marzusch *has been working as a project engineer since 2017 with a focus on the assessment and remediation of soil and groundwater impacts. He completed his bachelor's and master's degree in geosciences with a focus on hydrogeology at the Friedrich-Wilhelms-Universität Bonn in 2017. He can reached at the Arcadis Darmstadt office, Europaplatz 3, 64,293 Darmstadt, Germany, emanuel.marzusch@arcadis.com.*

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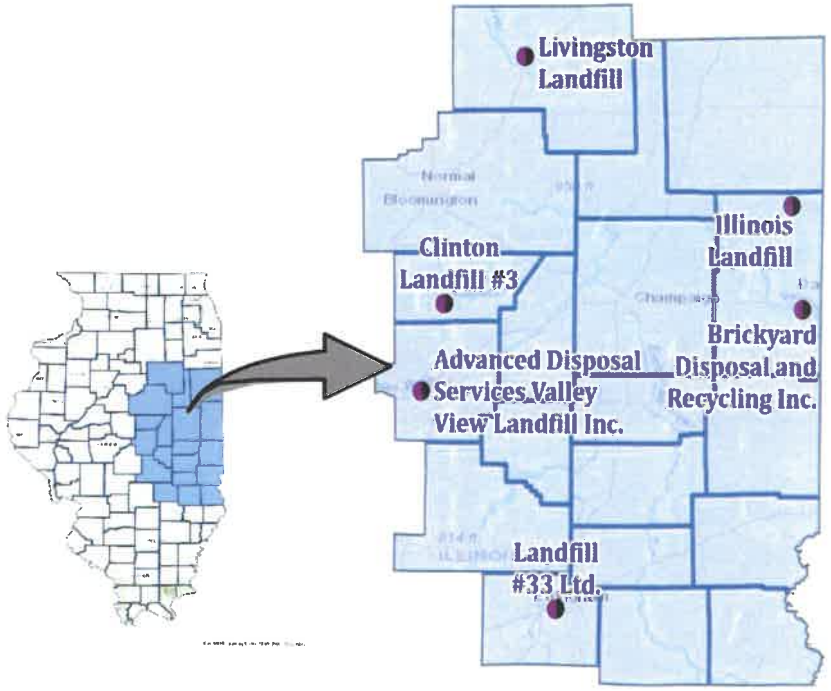
Appendix D

Central Illinois Landfill Capacity Information

2023 Landfill Capacity Information

	Disposal Volume Reported (Gate cy)	Disposal Volume (Post-Compaction In-place cy)	Five-Year Average Disposal Volume In-place cy)	Remaining Capacity Reported (In-Place cy)	Lifetime Expectancy (Years)
Region 4: East Central Illinois					
Advanced Disposal Services Valley View Landfill Inc.	467,811	187,124	207,039	7,223,189	35
Brickyard Disposal and Recycling Inc.	663,839	301,745	314,264	5,864,904	19
Clinton Landfill #3	141,633	54,058	481,121	23,080,860	48
Illinois Landfill	101,652	50,826	65,410	11,069,307	169
Landfill #33 Ltd.	302,407	100,802	109,760	558,365	5
Livingston Landfill	3,823,899	1,365,678	1,084,146	23,912,219	22
Totals:	**5,501,241**	**2,060,234**	**2,261,742**	**71,708,843**	**50**

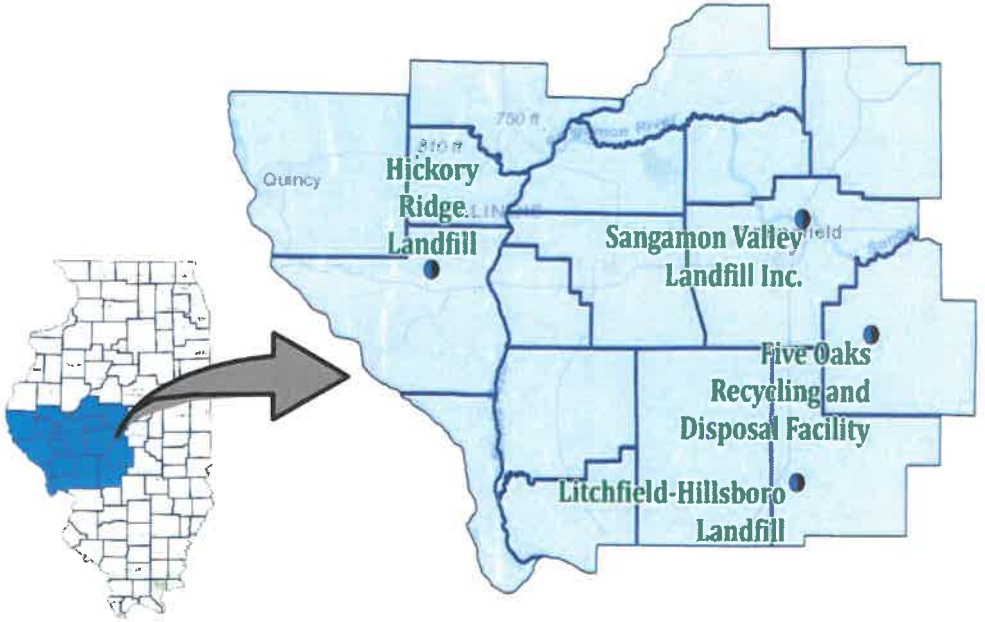
The table reflects each landfill's reported capacity as of January 1, 2024 as well as the volume of waste disposed in 2023, five-year average volume disposed, and projected life expectancy based on current five-year average.



2023 Landfill Capacity Information

	Disposal Volume Reported (Gate cy)	Disposal Volume (Post-Compaction In-place cy)	Five-Year Average Disposal Volume (In-place cy)	Remaining Capacity Reported (In-Place cy)	Lifetime Expectancy (Years)
Region 5: West Central Illinois					
Five Oaks Recycling and Disposal Facility	901,532	342,788	282,636	6,131,584	22
Hickory Ridge Landfill	425,697	127,074	155,564	9,956,606	64
Litchfield-Hillsboro Landfill	229,053	76,351	105,663	1,135,066	11
Sangamon Valley Landfill Inc.	510,890	170,297	171,119	1,644,087	10
Totals:	**2,067,172**	**716,509**	**714,982**	**18,867,343**	**27**

The table reflects each landfill's reported capacity as of January 1, 2024, as well as the volume of waste disposed in 2023, five-year average volume disposed, and projected life expectancy based on current five-year average.



Appendix E

TCLP/SPLP Laboratory Results

May 28, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050235

Dear Eric Staley:

TEKLAB, INC received 4 samples on 5/2/2024 1:11:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050235
Report Date: 28-May-24

This reporting package includes the following:

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Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	11
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050235

Client Project: CWLP Borings **Report Date:** 28-May-24

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24050235
Client Project: CWLP Borings
Report Date: 28-May-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050235
Client Project: CWLP Borings
Report Date: 28-May-24

Cooler Receipt Temp: 2.9 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

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Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

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Phone (618) 344-1004
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Email EHurley@teklabinc.com

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Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050235

Client Project: CWLP Borings

Report Date: 28-May-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050235
Client Project: CWLP Borings
Report Date: 28-May-24
Lab ID: 24050235-001
Client Sample ID: D2 33.5-35.5
Matrix: SOLID
Collection Date: 04/29/2024 10:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**158**	mg/L	10	05/09/2024 14:01	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.37	1.0	J	**0.37**	mg/L	10	05/10/2024 9:26	R347102
Elevated reporting limit due to matrix interference.									
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**8**	mg/L	1	05/09/2024 13:56	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.18**		1	05/06/2024 11:24	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.345**	mg/L	1	05/07/2024 17:27	222522
Barium	NELAP	0.0150	0.0450		**0.352**	mg/L	1	05/07/2024 17:27	222522
Beryllium	NELAP	0.0002	0.0010	J	**0.0002**	mg/L	1	05/07/2024 17:27	222522
Boron	NELAP	0.250	1.00		**4.05**	mg/L	1	05/07/2024 17:27	222522
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/07/2024 17:27	222522
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 17:27	222522
Cobalt	NELAP	0.0020	0.0060		**0.0130**	mg/L	1	05/07/2024 17:27	222522
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:27	222522
Molybdenum	NELAP	0.0037	0.0100		**1.27**	mg/L	1	05/07/2024 17:27	222522
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/07/2024 17:27	222522
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0125**	mg/L	5	05/09/2024 9:41	222522
Lithium	*	0.0015	0.0030		**0.0707**	mg/L	5	05/09/2024 9:41	222522
Thallium	NELAP	0.0010	0.0020	J	**0.0018**	mg/L	5	05/09/2024 9:41	222522
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 0:32	222519
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0390**	mg/L	1	05/08/2024 17:27	222567
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/07/2024 16:58	222567
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/07/2024 16:58	222567
Boron	NELAP	0.250	1.00		**3.05**	mg/L	1	05/07/2024 16:58	222567
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/07/2024 16:58	222567
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 16:58	222567
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/07/2024 16:58	222567
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 16:58	222567
Molybdenum	NELAP	0.0037	0.0100		**5.21**	mg/L	1	05/07/2024 16:58	222567
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/07/2024 16:58	222567
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0273**	mg/L	5	05/09/2024 10:45	222567
Lithium	*	0.0015	0.0030		**0.0065**	mg/L	5	05/09/2024 10:45	222567
Thallium	NELAP	0.0010	0.0020	J	**0.0015**	mg/L	5	05/09/2024 10:45	222567
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 17:08	223125
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896

Client: City Water, Light & Power
Work Order: 24050235
Client Project: CWLP Borings
Report Date: 28-May-24
Lab ID: 24050235-002
Client Sample ID: D1 36.5-38.5
Matrix: SOLID
Collection Date: 04/29/2024 15:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	6	10		**45**	mg/L	1	05/09/2024 14:04	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.19**	mg/L	1	05/09/2024 13:44	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4	J	**1**	mg/L	1	05/09/2024 14:04	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.64**		1	05/06/2024 11:30	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0528**	mg/L	1	05/07/2024 17:45	222522
Barium	NELAP	0.0150	0.0450		**0.514**	mg/L	1	05/07/2024 17:45	222522
Beryllium	NELAP	0.0002	0.0010		**0.0085**	mg/L	1	05/07/2024 17:45	222522
Boron	NELAP	0.250	1.00		**10.9**	mg/L	1	05/07/2024 17:45	222522
Cadmium	NELAP	0.0005	0.0020		**0.0706**	mg/L	1	05/07/2024 17:45	222522
Chromium	NELAP	0.0034	0.0100		**0.0707**	mg/L	1	05/07/2024 17:45	222522
Cobalt	NELAP	0.0020	0.0060		**0.0116**	mg/L	1	05/07/2024 17:45	222522
Lead	NELAP	0.0040	0.0075		**0.0102**	mg/L	1	05/08/2024 13:13	222522
Molybdenum	NELAP	0.0037	0.0100		**0.0554**	mg/L	1	05/07/2024 17:45	222522
Selenium	NELAP	0.017	0.050	J	**0.037**	mg/L	1	05/07/2024 17:45	222522
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0237**	mg/L	5	05/09/2024 9:36	222522
Lithium	*	0.0015	0.0030		**0.0367**	mg/L	5	05/09/2024 9:36	222522
Thallium	NELAP	0.0010	0.0020		**0.0268**	mg/L	5	05/08/2024 14:55	222522
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 0:39	222519
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0471**	mg/L	1	05/08/2024 17:23	222567
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/07/2024 17:03	222567
Beryllium	NELAP	0.0002	0.0010	J	**0.0002**	mg/L	1	05/07/2024 17:03	222567
Boron	NELAP	0.250	1.00		**2.94**	mg/L	1	05/07/2024 17:03	222567
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/07/2024 17:03	222567
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 17:03	222567
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/07/2024 17:03	222567
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:03	222567
Molybdenum	NELAP	0.0037	0.0100		**0.144**	mg/L	1	05/07/2024 17:03	222567
Selenium	NELAP	0.017	0.050	J	**0.021**	mg/L	1	05/07/2024 17:03	222567
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0078**	mg/L	5	05/08/2024 15:04	222567
Lithium	*	0.0015	0.0030		**0.0112**	mg/L	5	05/09/2024 10:24	222567
Thallium	NELAP	0.0010	0.0020	J	**0.0010**	mg/L	5	05/08/2024 15:04	222567
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 17:12	223125
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896

Client: City Water, Light & Power **Work Order:** 24050235

Client Project: CWLP Borings **Report Date:** 28-May-24

Lab ID: 24050235-003 **Client Sample ID:** D3 14.5-29.5

Matrix: SOLID **Collection Date:** 04/30/2024 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	6	10		**31**	mg/L	1	05/09/2024 14:28	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.11**	mg/L	1	05/09/2024 13:47	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**< 4**	mg/L	1	05/09/2024 14:28	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.38**		1	05/06/2024 11:33	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0155**	mg/L	1	05/08/2024 13:15	222522
Barium	NELAP	0.0150	0.0450		**0.373**	mg/L	1	05/07/2024 17:46	222522
Beryllium	NELAP	0.0002	0.0010		**0.0113**	mg/L	1	05/07/2024 17:46	222522
Boron	NELAP	0.250	1.00		**8.74**	mg/L	1	05/07/2024 17:46	222522
Cadmium	NELAP	0.0005	0.0020		**0.0475**	mg/L	1	05/07/2024 17:46	222522
Chromium	NELAP	0.0034	0.0100		**0.0438**	mg/L	1	05/07/2024 17:46	222522
Cobalt	NELAP	0.0020	0.0060	J	**0.0054**	mg/L	1	05/07/2024 17:46	222522
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:46	222522
Molybdenum	NELAP	0.0037	0.0100		**0.0415**	mg/L	1	05/07/2024 17:46	222522
Selenium	NELAP	0.017	0.050	J	**0.030**	mg/L	1	05/07/2024 17:46	222522
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0197**	mg/L	5	05/10/2024 7:34	222522
Lithium	*	0.0015	0.0030		**0.0100**	mg/L	5	05/09/2024 10:29	222522
Thallium	NELAP	0.0010	0.0020		**0.0185**	mg/L	5	05/08/2024 15:29	222522
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 0:42	222519
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0173**	mg/L	1	05/08/2024 17:29	222567
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/07/2024 17:04	222567
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/07/2024 17:04	222567
Boron	NELAP	0.250	1.00		**2.34**	mg/L	1	05/07/2024 17:04	222567
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/07/2024 17:04	222567
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 17:04	222567
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/07/2024 17:04	222567
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:04	222567
Molybdenum	NELAP	0.0037	0.0100		**0.0355**	mg/L	1	05/07/2024 17:04	222567
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/07/2024 17:04	222567
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0070**	mg/L	5	05/09/2024 11:07	222567
Lithium	*	0.0015	0.0030		**0.0034**	mg/L	5	05/09/2024 11:07	222567
Thallium	NELAP	0.0010	0.0020	J	**0.0017**	mg/L	5	05/09/2024 11:07	222567
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 17:14	223125

Client: City Water, Light & Power **Work Order:** 24050235

Client Project: CWLP Borings **Report Date:** 28-May-24

Lab ID: 24050235-004 **Client Sample ID:** D4 29.5-31.5

Matrix: SOLID **Collection Date:** 04/30/2024 15:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**102**	mg/L	10	05/09/2024 14:41	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.14**	mg/L	1	05/09/2024 13:49	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**11**	mg/L	1	05/09/2024 14:36	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**10.2**		1	05/06/2024 11:35	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0242**	mg/L	1	05/07/2024 17:49	222522
Barium	NELAP	0.0150	0.0450		**0.287**	mg/L	1	05/07/2024 17:49	222522
Beryllium	NELAP	0.0002	0.0010		**0.0012**	mg/L	1	05/07/2024 17:49	222522
Boron	NELAP	0.250	1.00		**6.25**	mg/L	1	05/07/2024 17:49	222522
Cadmium	NELAP	0.0005	0.0020		**0.0063**	mg/L	1	05/07/2024 17:49	222522
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 17:49	222522
Cobalt	NELAP	0.0020	0.0060		**0.0089**	mg/L	1	05/07/2024 17:49	222522
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:49	222522
Molybdenum	NELAP	0.0037	0.0100		**0.179**	mg/L	1	05/07/2024 17:49	222522
Selenium	NELAP	0.017	0.050	J	**0.022**	mg/L	1	05/07/2024 17:49	222522
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0376**	mg/L	5	05/09/2024 10:18	222522
Lithium	*	0.0015	0.0030		**0.0374**	mg/L	5	05/09/2024 10:18	222522
Thallium	NELAP	0.0010	0.0020		**0.0243**	mg/L	5	05/08/2024 15:00	222522
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/19/2024 16:25	223122
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0114**	mg/L	1	05/08/2024 17:31	222567
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/07/2024 17:05	222567
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/07/2024 17:05	222567
Boron	NELAP	0.250	1.00		**2.77**	mg/L	1	05/07/2024 17:05	222567
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/07/2024 17:05	222567
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/07/2024 17:05	222567
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/07/2024 17:05	222567
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/07/2024 17:05	222567
Molybdenum	NELAP	0.0037	0.0100		**0.134**	mg/L	1	05/07/2024 17:05	222567
Selenium	NELAP	0.017	0.050	J	**0.021**	mg/L	1	05/07/2024 17:05	222567
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0240**	mg/L	5	05/09/2024 11:44	222567
Lithium	*	0.0015	0.0030		**0.0059**	mg/L	5	05/09/2024 11:44	222567
Thallium	NELAP	0.0010	0.0020	J	**0.0013**	mg/L	5	05/08/2024 16:14	222567
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 17:21	223125
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050235
Report Date: 28-May-24

Carrier: Paul Reeves
Received By: NR

Completed by: Amber Dilallo
On: 03-May-24

Reviewed by: Ellie Hopkins
On: 03-May-24

Pages to follow: Chain of custody 1 Extra pages included 14

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 2.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☐	No ☑		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	NA ☑	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

Samples requiring pH should be analyzed as soon as possible after collection. Samples submitted for pH analysis are analyzed as soon as practicable upon arrival at the laboratory. - amberdilallo - 5/3/2024 10:02:55 AM

Limited volume for D3 sample; additional volume for Radium-226 and -228 was submitted on WO#24050346. SAH 5/28/24

Print PDF

CHAIN OF CUSTODY

Pg __ of __ Workorder # 24050235

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 2.9 °C #7
Preserved in: [ ] LAB [ ] FIELD
FOR LAB USE ONLY
LAB NOTES:

TEKLAB

Client Comments:
TCLP & SPLP for all metals

Courier

email results to C. Grey and datamanagement@andrews-eng.com

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No
Are these samples known to be hazardous? [ ] Yes [ ] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

PROJECT NAME/NUMBER: CWLP Borings

SAMPLE COLLECTOR'S NAME: S. Van Hook

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Rad 226 and 228	TCLP & SPLP Sb, As, Ba, Be	TCLP & SPLP B, Cd, Cr, Co, Pb, Se, Tl	TCLP & SPLP Li, Mo	TCLP & SPLP Hg	Neutral Leach Cl, F+, SO4	pH
24050235-001	D2 33.5-35.5	4/29/24 10AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
002	D1 36.5-38.5	4/29/24 3:30PM	Soil	2									✓	✓	✓	✓	✓	✓	✓
003	D3 14.5-29.5	4/30/24 10:15am	Soil	2									✓	✓	✓	✓	✓	✓	✓
004	D4 29.5-31.5	4/30/24 3:00PM	Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2									✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Steve Van Hook	5/1/24 7:00pm	ASI Secure Storage	5/1/24 7:00P
ASI Secure Storage CMay	5/2/24 7:40A	Paul Mix	5.2.24 0740
Paul Mix	5.2.24 1311	Mitch Kleeb	5/2/24 1311

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

UM 5/2

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

May 23, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050235

Dear Shelly Hennessy:

Order No.: 24050488

Summit Environmental Technologies, Inc. received 3 sample(s) on 5/7/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **24050488**
Date: **5/23/2024**

CLIENT: TEKLAB Inc,
Project: 24050235

WorkOrder Narrative:
24050488: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050488**
Date: **5/23/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **24050488**

23-May-24

CLIENT: TEKLAB Inc,
Project: 24050235

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050488-001	24050235-001		4/29/2024 10:00:00 AM	5/7/2024 11:30:00 AM	Solid
24050488-002	24050235-002		4/29/2024 3:30:00 PM	5/7/2024 11:30:00 AM	Solid
24050488-003	24050235-004		4/30/2024 3:00:00 PM	5/7/2024 11:30:00 AM	Solid

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DATES REPORT

WO#: **24050488**

23-May-24

Client: TEKLAB Inc,

Project: 24050235

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050488-001A	24050235-001	4/29/2024 10:00:00 AM	Solid	Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050488-002A	24050235-002	4/29/2024 3:30:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050488-003A	24050235-004	4/30/2024 3:00:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050488**

Date Reported: **5/23/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/29/2024 10:00:00 AM

Project: 24050235

Lab ID: 24050488-001

Matrix: SOLID

Client Sample ID: 24050235-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**SW9315** **E903-904**		Analyst: **SMZ**
RADIUM-226 ANALYSIS (9315)							
Radium-226	ND	1.00		pCi/g	± 0.100	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RAD226/228					**SW9320** **E903-904**		Analyst: **SMZ**
RADIUM-228 ANALYSIS (9320)							
Radium-228	ND	2.00		pCi/g	± 0.330	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Laboratories

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Analytical Report

(consolidated)

WO#: **24050488**

Date Reported: **5/23/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/29/2024 3:30:00 PM

Project: 24050235

Lab ID: 24050488-002

Matrix: SOLID

Client Sample ID: 24050235-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**SW9315**	**E903-904**	Analyst: **SMZ**
RADIUM-226 ANALYSIS (9315)							
Radium-226	ND	1.00		pCi/g	± 0.130	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RAD226/228					**SW9320**	**E903-904**	Analyst: **SMZ**
RADIUM-228 ANALYSIS (9320)							
Radium-228	ND	2.00		pCi/g	± 0.270	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Laboratories

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Analytical Report

(consolidated)

WO#: **24050488**

Date Reported: **5/23/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 3:00:00 PM

Project: 24050235

Lab ID: 24050488-003

Matrix: SOLID

Client Sample ID: 24050235-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RAD226/228					**SW9315** **E903-904**		Analyst: **SMZ**
RADIUM-226 ANALYSIS (9315)							
Radium-226	ND	1.00		pCi/g	± 0.160	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RAD226/228					**SW9320** **E903-904**		Analyst: **SMZ**
RADIUM-228 ANALYSIS (9320)							
Radium-228	ND	2.00		pCi/g	± 0.300	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050488**

23-May-24

Client: TEKLAB Inc,
Project: 24050235 **BatchID:** **75515**

Sample ID: **MB-75515** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186135**
Client ID: **PBS** Batch ID: **75515** TestNo: **SW9320** **E903-904** Analysis Date: **5/22/2024** SeqNo: **5043898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	2.00									
Yield	1.00										

Sample ID: **LCS-75515** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186135**
Client ID: **LCSS** Batch ID: **75515** TestNo: **SW9320** **E903-904** Analysis Date: **5/22/2024** SeqNo: **5043899**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.62	2.00	5.000	0	72.4	50	130				

Sample ID: **LCSD-75515** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186135**
Client ID: **LCSS02** Batch ID: **75515** TestNo: **SW9320** **E903-904** Analysis Date: **5/22/2024** SeqNo: **5043900**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.01	2.00	5.000	0	60.2	50	130	3.620	18.4	20	

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186135**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9320** **E903-904** Analysis Date: **5/22/2024** SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050488**

23-May-24

Client: TEKLAB Inc,
Project: 24050235 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186135**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9320** **E903-904** Analysis Date: **5/22/2024** SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	8.89	2.00	10.00	0	88.9	0	0	6.490	31.2	20	RS
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050488**

23-May-24

Client: TEKLAB Inc,
Project: 24050235 **BatchID:** **75515**

Sample ID: **MB-75515**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **PBS**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044082**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75515**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **LCSS**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044083**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.20	1.00	5.000	0	124	70	130				

Sample ID: **LCSD-75515**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **LCSS02**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.76	1.00	5.000	0	115	60	140	6.200	7.36	40	

Sample ID: **24041932-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **BatchQC**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050488**

23-May-24

Client: TEKLAB Inc,

Project: 24050235 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/16/2024** RunNo: **186145**

Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.51	1.00						6.960	6.68	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

W.8-0.2 Cooler Temp: 26.6°C Sampler: Client QC Level: 2

Fedex, Cooler

Project# 24050235

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36226 Phone: (618) 344-1004 ext. 36

24050488

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228											
							CPM									
	24050235-001	4/29/24 1000	Unpres	Soil	✔		38									
	24050235-002	4/29/24 1530	Unpres	Soil	✔		34									
	24050235-004	4/30/24 1500	Unpres	Soil	✔		38									
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												

*Relinquished By	Date/Time	Received By	Date/Time
	5/3/24 1700		5/7/24, 1130

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights.

SubCocRevA

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050488 RcptNo: 1

Logged by:	Christina N. Gemma	5/7/2024 11:30:00 AM	C. Gemma
Completed By:	Christina N. Gemma	5/7/2024 5:25:54 PM	C. Gemma
Reviewed By:	Jennifer Woolf	5/8/2024 11:11:39 AM	Jennifer Woolf

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date: Signed By:			
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	20.6	Good	Not Present			

June 05, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050346

Dear Eric Staley:

TEKLAB, INC received 10 samples on 5/3/2024 1:50:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050346
Report Date: 05-Jun-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	17
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050346

Client Project: CWLP Borings **Report Date:** 05-Jun-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power

Work Order: 24050346

Client Project: CWLP Borings

Report Date: 05-Jun-24

Qualifiers

- Unknown hydrocarbon

B - Analyte detected in associated Method Blank

C - RL shown is a Client Requested Quantitation Limit

E - Value above quantitation range

H - Holding times exceeded

I - Associated internal standard was outside method criteria

J - Analyte detected below quantitation limits

M - Manual Integration used to determine area response

ND - Not Detected at the Reporting Limit

R - RPD outside accepted recovery limits

S - Spike Recovery outside recovery limits

T - TIC(Tentatively identified compound)

X - Value exceeds Maximum Contaminant Level

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24

Cooler Receipt Temp: 3.3 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
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Lenexa, KS 66214
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Collinsville Air

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Chicago

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Downers Grove, IL 60515
Phone (630) 324-6855
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Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050346

Client Project: CWLP Borings

Report Date: 05-Jun-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-001
Client Sample ID: L4 10ft-15.3ft
Matrix: SOLID
Collection Date: 05/02/2024 8:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**149**	mg/L	10	05/09/2024 14:49	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.42**	mg/L	1	05/09/2024 13:52	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**25**	mg/L	1	05/09/2024 14:44	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.49**		1	05/06/2024 11:10	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:00	222742
Barium	NELAP	0.0150	0.0450		**1.04**	mg/L	1	05/10/2024 14:00	222742
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:00	222742
Boron	NELAP	0.25	1.0	J	**0.59**	mg/L	1	05/10/2024 14:00	222742
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:00	222742
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:00	222742
Cobalt	NELAP	0.0020	0.0060		**0.0077**	mg/L	1	05/10/2024 14:00	222742
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:00	222742
Molybdenum	NELAP	0.0037	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:00	222742
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:00	222742
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0012**	mg/L	5	05/14/2024 9:03	222742
Lithium	*	0.0015	0.0030		**0.0034**	mg/L	5	05/14/2024 9:03	222742
Thallium	NELAP	0.0010	0.0020	J	**0.0015**	mg/L	5	05/15/2024 12:16	222742
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/16/2024 7:17	222743
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:13	222744
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/10/2024 14:13	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:13	222744
Boron	NELAP	0.250	1.00		**< 1.00**	mg/L	1	05/10/2024 14:13	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:13	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:13	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:13	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:13	222744
Molybdenum	NELAP	0.0037	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:13	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:13	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010	J	**0.0009**	mg/L	5	05/14/2024 12:23	222744
Lithium	*	0.0015	0.0030		**< 0.0030**	mg/L	5	05/14/2024 12:23	222744
Thallium	NELAP	0.0010	0.0020	J	**0.0011**	mg/L	5	05/15/2024 14:31	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:27	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-002
Client Sample ID: L3 29.5-32.7
Matrix: SOLID
Collection Date: 05/02/2024 11:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	307	500		**574**	mg/L	50	05/10/2024 13:21	R347112
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.20**	mg/L	1	05/09/2024 13:53	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**13**	mg/L	1	05/09/2024 14:52	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.79**		1	05/06/2024 11:12	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0337**	mg/L	1	05/10/2024 14:01	222742
Barium	NELAP	0.0150	0.0450		**0.470**	mg/L	1	05/10/2024 14:01	222742
Beryllium	NELAP	0.0002	0.0010		**0.0054**	mg/L	1	05/10/2024 14:01	222742
Boron	NELAP	0.250	1.00		**1.23**	mg/L	1	05/10/2024 14:01	222742
Cadmium	NELAP	0.0005	0.0020		**0.0397**	mg/L	1	05/10/2024 14:01	222742
Chromium	NELAP	0.0034	0.0100		**0.0185**	mg/L	1	05/10/2024 14:01	222742
Cobalt	NELAP	0.0020	0.0060		**0.0161**	mg/L	1	05/10/2024 14:01	222742
Lead	NELAP	0.0040	0.0075		**0.0247**	mg/L	1	05/10/2024 14:01	222742
Molybdenum	NELAP	0.0037	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:01	222742
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:01	222742
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0024**	mg/L	5	05/14/2024 9:57	222742
Lithium	*	0.0015	0.0030		**0.0061**	mg/L	5	05/14/2024 9:57	222742
Thallium	NELAP	0.0010	0.0020		**0.0060**	mg/L	5	05/15/2024 12:31	222742
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/16/2024 7:20	222743
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/16/2024 17:50	222744
Barium	NELAP	0.015	0.045	J	**0.025**	mg/L	1	05/10/2024 14:14	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:14	222744
Boron	NELAP	0.25	1.0	J	**0.60**	mg/L	1	05/10/2024 14:14	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:14	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:14	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:14	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:14	222744
Molybdenum	NELAP	0.0037	0.0100		**0.0169**	mg/L	1	05/10/2024 14:14	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:14	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0037**	mg/L	5	05/14/2024 12:28	222744
Lithium	*	0.0015	0.0030	J	**0.0030**	mg/L	5	05/14/2024 12:28	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 14:36	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:29	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/31/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/31/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-003
Client Sample ID: L3 19.5-21.5
Matrix: SOLID
Collection Date: 05/02/2024 11:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**224**	mg/L	10	05/09/2024 15:05	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.20**	mg/L	1	05/09/2024 13:56	R347045
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4	J	**4**	mg/L	1	05/09/2024 15:00	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.14**		1	05/06/2024 11:14	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0279**	mg/L	1	05/16/2024 17:49	222740
Barium	NELAP	0.0150	0.0450		**0.635**	mg/L	1	05/10/2024 14:56	222740
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:56	222740
Boron	NELAP	0.25	1.0	J	**0.69**	mg/L	1	05/10/2024 14:56	222740
Cadmium	NELAP	0.0005	0.0020		**0.0154**	mg/L	1	05/10/2024 14:56	222740
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:56	222740
Cobalt	NELAP	0.0020	0.0060		**0.0065**	mg/L	1	05/14/2024 12:11	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:56	222740
Molybdenum	NELAP	0.0037	0.0100		**0.0307**	mg/L	1	05/10/2024 14:56	222740
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:56	222740
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0066**	mg/L	5	05/14/2024 9:42	222740
Lithium	*	0.0015	0.0030		**0.0053**	mg/L	5	05/14/2024 9:42	222740
Thallium	NELAP	0.0010	0.0020		**0.0086**	mg/L	5	05/15/2024 13:21	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**0.00028**	mg/L	1	05/14/2024 14:21	222612
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0195**	mg/L	1	05/10/2024 14:15	222744
Barium	NELAP	0.015	0.045	J	**0.028**	mg/L	1	05/10/2024 14:15	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:15	222744
Boron	NELAP	0.25	1.0	J	**0.32**	mg/L	1	05/10/2024 14:15	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:15	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:15	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:15	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:15	222744
Molybdenum	NELAP	0.0037	0.0100		**0.0111**	mg/L	1	05/10/2024 14:15	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:15	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0054**	mg/L	5	05/14/2024 12:33	222744
Lithium	*	0.0015	0.0030	J	**0.0015**	mg/L	5	05/14/2024 12:33	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 14:41	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:36	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-004
Client Sample ID: L1 24.5-31.5
Matrix: SOLID
Collection Date: 05/02/2024 15:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**139**	mg/L	10	05/09/2024 15:29	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.21**	mg/L	1	05/10/2024 9:32	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**5**	mg/L	1	05/09/2024 15:24	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.14**		1	05/06/2024 11:15	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:56	222740
Barium	NELAP	0.0150	0.0450		**0.172**	mg/L	1	05/10/2024 14:56	222740
Beryllium	NELAP	0.0002	0.0010		**0.0015**	mg/L	1	05/10/2024 14:56	222740
Boron	NELAP	0.250	1.00		**17.2**	mg/L	1	05/10/2024 14:56	222740
Cadmium	NELAP	0.0005	0.0020		**0.0045**	mg/L	1	05/10/2024 14:56	222740
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:56	222740
Cobalt	NELAP	0.0020	0.0060	J	**0.0033**	mg/L	1	05/10/2024 14:56	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:56	222740
Molybdenum	NELAP	0.0037	0.0100		**0.0118**	mg/L	1	05/10/2024 14:56	222740
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:56	222740
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0064**	mg/L	5	05/14/2024 9:47	222740
Lithium	*	0.0015	0.0030		**0.0087**	mg/L	5	05/14/2024 9:47	222740
Thallium	NELAP	0.0010	0.0020		**0.0041**	mg/L	5	05/15/2024 13:26	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 16:51	222741
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:16	222744
Barium	NELAP	0.015	0.045	J	**0.026**	mg/L	1	05/10/2024 14:16	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:16	222744
Boron	NELAP	0.250	1.00		**2.69**	mg/L	1	05/10/2024 14:16	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:16	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:16	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:16	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:16	222744
Molybdenum	NELAP	0.0037	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:16	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:16	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0012**	mg/L	5	05/14/2024 12:39	222744
Lithium	*	0.0015	0.0030	J	**0.0030**	mg/L	5	05/14/2024 12:39	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 14:45	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:43	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-005
Client Sample ID: L1 14.5-21.5
Matrix: SOLID
Collection Date: 05/02/2024 14:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**103**	mg/L	10	05/09/2024 15:37	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.37**	mg/L	1	05/10/2024 9:35	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4	J	**1**	mg/L	1	05/09/2024 15:32	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.13**		1	05/06/2024 11:16	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:57	222740
Barium	NELAP	0.0150	0.0450		**0.345**	mg/L	1	05/10/2024 14:57	222740
Beryllium	NELAP	0.0002	0.0010	J	**0.0007**	mg/L	1	05/10/2024 14:57	222740
Boron	NELAP	0.25	1.0	J	**0.32**	mg/L	1	05/10/2024 14:57	222740
Cadmium	NELAP	0.0005	0.0020		**0.0045**	mg/L	1	05/10/2024 14:57	222740
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:57	222740
Cobalt	NELAP	0.0020	0.0060	J	**0.0054**	mg/L	1	05/10/2024 14:57	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:57	222740
Molybdenum	NELAP	0.0037	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:57	222740
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:57	222740
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0019**	mg/L	5	05/14/2024 10:18	222740
Lithium	*	0.0015	0.0030		**0.0036**	mg/L	5	05/14/2024 10:18	222740
Thallium	NELAP	0.0010	0.0020		**0.0023**	mg/L	5	05/15/2024 13:36	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 16:54	222741
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0276**	mg/L	1	05/10/2024 14:16	222744
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/10/2024 14:16	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:16	222744
Boron	NELAP	0.250	1.00		**< 1.00**	mg/L	1	05/10/2024 14:16	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:16	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:16	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:16	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:16	222744
Molybdenum	NELAP	0.0037	0.0100		**0.0145**	mg/L	1	05/10/2024 14:16	222744
Selenium	NELAP	0.017	0.050	J	**0.019**	mg/L	1	05/10/2024 14:16	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0114**	mg/L	5	05/14/2024 13:05	222744
Lithium	*	0.0015	0.0030		**< 0.0030**	mg/L	5	05/14/2024 13:05	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 15:05	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:45	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-006
Client Sample ID: D3 9.5-11.5
Matrix: SOLID
Collection Date: 04/30/2024 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-007
Client Sample ID: D3 4.5-6.5
Matrix: SOLID
Collection Date: 04/30/2024 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	6	10		**45**	mg/L	1	05/09/2024 15:42	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10	J	**0.08**	mg/L	1	05/10/2024 9:36	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**< 4**	mg/L	1	05/09/2024 15:42	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.93**		1	05/06/2024 11:18	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:59	222740
Barium	NELAP	0.0150	0.0450		**0.492**	mg/L	1	05/10/2024 14:59	222740
Beryllium	NELAP	0.0002	0.0010		**0.0114**	mg/L	1	05/10/2024 14:59	222740
Boron	NELAP	0.500	2.00		**25.9**	mg/L	2	05/13/2024 11:33	222740
Cadmium	NELAP	0.0005	0.0020		**0.0302**	mg/L	1	05/10/2024 14:59	222740
Chromium	NELAP	0.0034	0.0100		**0.0692**	mg/L	1	05/10/2024 14:59	222740
Cobalt	NELAP	0.0020	0.0060		**0.0118**	mg/L	1	05/10/2024 14:59	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:59	222740
Molybdenum	NELAP	0.0037	0.0100		**0.0375**	mg/L	1	05/10/2024 14:59	222740
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:59	222740
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0178**	mg/L	5	05/14/2024 9:52	222740
Lithium	*	0.0015	0.0030		**0.0131**	mg/L	5	05/14/2024 9:52	222740
Thallium	NELAP	0.0010	0.0020		**0.0252**	mg/L	5	05/15/2024 13:31	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 16:56	222741
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/16/2024 17:50	222744
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/10/2024 14:24	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:24	222744
Boron	NELAP	0.250	1.00		**2.65**	mg/L	1	05/10/2024 14:24	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:24	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:24	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:24	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:24	222744
Molybdenum	NELAP	0.0037	0.0100		**0.0138**	mg/L	1	05/10/2024 14:24	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:24	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0029**	mg/L	5	05/14/2024 12:44	222744
Lithium	*	0.0015	0.0030		**0.0033**	mg/L	5	05/14/2024 12:44	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 14:50	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:47	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-008
Client Sample ID: D1 19.5-21.5
Matrix: SOLID
Collection Date: 04/29/2024 15:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	31	50		**65**	mg/L	5	05/10/2024 13:23	R347112
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.13**	mg/L	1	05/10/2024 9:39	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4	J	**1**	mg/L	1	05/09/2024 15:50	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**10.0**		1	05/06/2024 11:20	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 15:06	222740
Barium	NELAP	0.0150	0.0450		**0.358**	mg/L	1	05/10/2024 15:06	222740
Beryllium	NELAP	0.0002	0.0010		**0.0145**	mg/L	1	05/10/2024 15:06	222740
Boron	NELAP	0.500	2.00		**26.6**	mg/L	2	05/13/2024 11:33	222740
Cadmium	NELAP	0.0005	0.0020		**0.0293**	mg/L	1	05/10/2024 15:06	222740
Chromium	NELAP	0.0034	0.0100		**0.105**	mg/L	1	05/10/2024 15:06	222740
Cobalt	NELAP	0.0020	0.0060		**0.0145**	mg/L	1	05/10/2024 15:06	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 15:06	222740
Molybdenum	NELAP	0.0037	0.0100		**0.0402**	mg/L	1	05/10/2024 15:06	222740
Selenium	NELAP	0.017	0.050	J	**0.017**	mg/L	1	05/10/2024 15:06	222740
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0170**	mg/L	5	05/14/2024 11:46	222740
Lithium	*	0.0015	0.0030		**0.0112**	mg/L	5	05/14/2024 11:46	222740
Thallium	NELAP	0.0010	0.0020		**0.0229**	mg/L	5	05/15/2024 14:26	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/15/2024 17:07	222741
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:25	222744
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/10/2024 14:25	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:25	222744
Boron	NELAP	0.250	1.00		**5.11**	mg/L	1	05/10/2024 14:25	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:25	222744
Chromium	NELAP	0.0034	0.010	J	**0.0049**	mg/L	1	05/10/2024 14:25	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:25	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:25	222744
Molybdenum	NELAP	0.0037	0.0100		**0.216**	mg/L	1	05/10/2024 14:25	222744
Selenium	NELAP	0.017	0.050	J	**0.030**	mg/L	1	05/10/2024 14:25	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0035**	mg/L	5	05/14/2024 12:49	222744
Lithium	*	0.0015	0.0030		**0.0033**	mg/L	5	05/14/2024 12:49	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 14:55	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:49	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-009
Client Sample ID: D2 19.5-21.5
Matrix: SOLID
Collection Date: 04/29/2024 9:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	61	100		**226**	mg/L	10	05/09/2024 16:20	R347057
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.20**	mg/L	1	05/10/2024 9:42	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**7**	mg/L	1	05/09/2024 16:14	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.25**		1	05/06/2024 11:21	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0505**	mg/L	1	05/10/2024 14:03	222742
Barium	NELAP	0.0150	0.0450		**0.556**	mg/L	1	05/10/2024 14:03	222742
Beryllium	NELAP	0.0002	0.0010		**0.0231**	mg/L	1	05/10/2024 14:03	222742
Boron	NELAP	0.250	1.00		**9.63**	mg/L	1	05/10/2024 14:03	222742
Cadmium	NELAP	0.0005	0.0020		**0.0638**	mg/L	1	05/10/2024 14:03	222742
Chromium	NELAP	0.0034	0.0100		**0.116**	mg/L	1	05/10/2024 14:03	222742
Cobalt	NELAP	0.0020	0.0060		**0.0182**	mg/L	1	05/10/2024 14:03	222742
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:03	222742
Molybdenum	NELAP	0.0037	0.0100		**0.0571**	mg/L	1	05/10/2024 14:03	222742
Selenium	NELAP	0.017	0.050	J	**0.017**	mg/L	1	05/10/2024 14:03	222742
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0163**	mg/L	5	05/14/2024 9:36	222742
Lithium	*	0.0015	0.0030		**0.0228**	mg/L	5	05/14/2024 9:36	222742
Thallium	NELAP	0.0010	0.0020		**0.0257**	mg/L	5	05/15/2024 12:11	222742
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/16/2024 7:24	222743
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:26	222744
Barium	NELAP	0.015	0.045	J	**0.021**	mg/L	1	05/10/2024 14:26	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:26	222744
Boron	NELAP	0.250	1.00		**4.20**	mg/L	1	05/10/2024 14:26	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:26	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:26	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:26	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:26	222744
Molybdenum	NELAP	0.0037	0.0100		**0.155**	mg/L	1	05/10/2024 14:26	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:26	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0141**	mg/L	5	05/14/2024 12:54	222744
Lithium	*	0.0015	0.0030		**0.0078**	mg/L	5	05/14/2024 12:54	222744
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/15/2024 15:00	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:54	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Client: City Water, Light & Power
Work Order: 24050346
Client Project: CWLP Borings
Report Date: 05-Jun-24
Lab ID: 24050346-010
Client Sample ID: D4 19.5-21.5
Matrix: SOLID
Collection Date: 04/30/2024 14:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	31	50		**70**	mg/L	5	05/10/2024 13:26	R347112
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10	J	**0.06**	mg/L	1	05/10/2024 9:52	R347102
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4	J	**2**	mg/L	1	05/09/2024 16:22	R347069
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**9.63**		1	05/06/2024 11:22	R346778
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 15:07	222740
Barium	NELAP	0.0150	0.0450		**0.238**	mg/L	1	05/10/2024 15:07	222740
Beryllium	NELAP	0.0002	0.0010		**0.0056**	mg/L	1	05/10/2024 15:07	222740
Boron	NELAP	0.500	2.00	S	**26.9**	mg/L	2	05/13/2024 11:34	222740
Cadmium	NELAP	0.0005	0.0020		**0.0422**	mg/L	1	05/10/2024 15:07	222740
Chromium	NELAP	0.0034	0.0100		**0.0151**	mg/L	1	05/10/2024 15:07	222740
Cobalt	NELAP	0.0020	0.0060		**0.0107**	mg/L	1	05/10/2024 15:07	222740
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 15:07	222740
Molybdenum	NELAP	0.0037	0.0100		**0.105**	mg/L	1	05/10/2024 15:07	222740
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 15:07	222740
Matrix spike control limits are not applicable due to high sample/spike ratio.									
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0395**	mg/L	5	05/14/2024 11:51	222740
Lithium	*	0.0015	0.0030		**0.0192**	mg/L	5	05/14/2024 11:51	222740
Thallium	NELAP	0.0010	0.0020		**0.0225**	mg/L	5	05/15/2024 13:55	222740
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**0.00029**	mg/L	1	05/15/2024 17:12	222741
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:26	222744
Barium	NELAP	0.0150	0.0450		**< 0.0450**	mg/L	1	05/10/2024 14:26	222744
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/10/2024 14:26	222744
Boron	NELAP	0.250	1.00		**3.77**	mg/L	1	05/10/2024 14:26	222744
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/10/2024 14:26	222744
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/10/2024 14:26	222744
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/10/2024 14:26	222744
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/10/2024 14:26	222744
Molybdenum	NELAP	0.0037	0.0100		**0.0495**	mg/L	1	05/10/2024 14:26	222744
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/10/2024 14:26	222744
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0034**	mg/L	5	05/14/2024 14:18	222744
Lithium	*	0.0015	0.0030		**0.0075**	mg/L	5	05/14/2024 14:18	222744
Thallium	NELAP	0.0010	0.0020	J	**0.0017**	mg/L	5	05/15/2024 16:15	222744
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 16:56	223131
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R348283

Receiving Check List

Teklab, Inc. Environmental Laboratory

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050346
Report Date: 05-Jun-24

Carrier: Paul Reeves

Received By: LM

Completed by: Amber Dilallo
On: 03-May-24

Reviewed by: Ellie Hopkins
On: 03-May-24

Pages to follow: Chain of custody 1 Extra pages included 25

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 3.3
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	NA ☑
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Samples requiring pH should be analyzed as soon as possible after collection. Samples submitted for pH analysis are analyzed as soon as practicable upon arrival at the laboratory. - amberdilallo - 5/3/2024 2:35:35 PM

CHAIN OF CUSTODY

Pg __ of __ Workorder # 24050346

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☐ No
Are these samples known to be hazardous? ☐ Yes ☐ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☐ Yes ☐ No

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 3.3 °C LT6475
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

TEKLAB

Client Comments:
TCLP & SPLP for all metals

Courier

email results to C. Grey and datamanagement@andrews-eng.com SAV 5/6/24
*Add'l volume for 24050235-003; use ID D3 9.5-11.5 per Steve Van Hook

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
CWLP Borings	S. Van Hook

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Rad 226 and 228	TCLP & SPLP Sb, As, Ba, Be	TCLP & SPLP B, Cd, Cr, Co, Pb, Se, Tl	TCLP & SPLP Li, Mo	TCLP & SPLP Hg	Neutral Leach Cl, F+, SO4	pH
24050346 001	L4 10'-15.5'	5/2/24 8:15am	Soil	2									✓	✓	✓	✓	✓	✓	✓
002	L3 29.5-32.5	5/2/24 11AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
003	L3 19.5-21.5	5/2/24 11:15AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
004	L1 24.5-31.5	5/2/24 3:30pm	Soil	2									✓	✓	✓	✓	✓	✓	✓
005	L1 14.5-21.5	5/2/24 2:50PM	Soil	2									✓	✓	✓	✓	✓	✓	✓
* 006	D3 9.5-29.5	4/30/24 10:15AM	Soil	2									✓	✓	✓	✓	✓	✓	✓ RAD ONLY SAV 5/6/24
007	D3 4.5-6.5	4/30/24 10:15AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
008	D1 19.5-21.5	4/29/24 3:00PM	Soil	2									✓	✓	✓	✓	✓	✓	✓
009	D2 19.5-21.5	4/29/24 9:30am	Soil	2									✓	✓	✓	✓	✓	✓	✓
010	D4 19.5-21.5	4/30/24 2:45pm	Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2															

Relinquished By	Date/Time	Received By	Date/Time
[signature]	5/2/24 7:00pm	AEI Secure Storage	5/2/24 1900
AEI Secure Storage	5/3/24 07:28	[signature]	5.3.24 0728
[signature]	5.3.24 1350	[signature]	5/3/24 1350

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

5/3

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

June 05, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050346

Dear Shelly Hennessy:

Order No.: 24050783

Summit Environmental Technologies, Inc. received 10 sample(s) on 5/9/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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Website: http://www.settek.com

Case Narrative

WO#: **24050783**
Date: **6/5/2024**

CLIENT: TEKLAB Inc,
Project: 24050346

WorkOrder Narrative:
24050783: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44&
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050783**
Date: **6/5/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Analytical Laboratories

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Website: http://www.settek.com

Workorder Sample Summary

WO#: **24050783**
05-Jun-24

CLIENT: TEKLAB Inc,
Project: 24050346

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050783-001	24050346-001		5/2/2024 8:15:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-002	24050346-002		5/2/2024 11:00:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-003	24050346-003		5/2/2024 11:15:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-004	24050346-004		5/2/2024 3:30:00 PM	5/9/2024 11:40:00 AM	Solid
24050783-005	24050346-005		5/2/2024 2:50:00 PM	5/9/2024 11:40:00 AM	Solid
24050783-006	24050346-006		4/30/2024 10:15:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-007	24050346-007		4/30/2024 10:15:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-008	24050346-008		4/30/2024 3:00:00 PM	5/9/2024 11:40:00 AM	Solid
24050783-009	24050346-009		4/30/2024 9:30:00 AM	5/9/2024 11:40:00 AM	Solid
24050783-010	24050346-010		4/30/2024 2:45:00 PM	5/9/2024 11:40:00 AM	Solid

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DATES REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,

Project: 24050346

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050783-001A	24050346-001	5/2/2024 8:15:00 AM	Solid	Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-002A	24050346-002	5/2/2024 11:00:00 AM		Radium-226 Analysis (9315)		5/28/2024 1:38:00 PM	6/3/2024 11:07:59 AM
				Radium-228 Analysis (9320)		5/28/2024 1:38:00 PM	5/31/2024 1:16:12 PM
24050783-003A	24050346-003	5/2/2024 11:15:00 AM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-004A	24050346-004	5/2/2024 3:30:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-005A	24050346-005	5/2/2024 2:50:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-006A	24050346-006	4/30/2024 10:15:00 AM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-007A	24050346-007			Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-008A	24050346-008	4/30/2024 3:00:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-009A	24050346-009	4/30/2024 9:30:00 AM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050783-010A	24050346-010	4/30/2024 2:45:00 PM		Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM

Original

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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 8:15:00 AM

Project: 24050346

Lab ID: 24050783-001

Matrix: SOLID

Client Sample ID: 24050346-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.0700	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.290	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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3310 Win St.
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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 11:00:00 AM

Project: 24050346

Lab ID: 24050783-002

Matrix: SOLID

Client Sample ID: 24050346-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.0800	1	6/3/2024 11:07:59 AM
Yield	1.00					1	6/3/2024 11:07:59 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.260	1	5/31/2024 1:16:12 PM
Yield	1.00					1	5/31/2024 1:16:12 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 11:15:00 AM

Project: 24050346

Lab ID: 24050783-003

Matrix: SOLID

Client Sample ID: 24050346-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.140	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.300	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 3:30:00 PM

Project: 24050346

Lab ID: 24050783-004

Matrix: SOLID

Client Sample ID: 24050346-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.100	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.250	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 2:50:00 PM

Project: 24050346

Lab ID: 24050783-005

Matrix: SOLID

Client Sample ID: 24050346-005

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.0800	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.210	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 10:15:00 AM

Project: 24050346

Lab ID: 24050783-006

Matrix: SOLID

Client Sample ID: 24050346-006

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.140	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.280	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 10:15:00 AM

Project: 24050346

Lab ID: 24050783-007

Matrix: SOLID

Client Sample ID: 24050346-007

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.100	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.380	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 3:00:00 PM

Project: 24050346

Lab ID: 24050783-008

Matrix: SOLID

Client Sample ID: 24050346-008

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.160	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.290	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 9:30:00 AM

Project: 24050346

Lab ID: 24050783-009

Matrix: SOLID

Client Sample ID: 24050346-009

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.120	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.290	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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Analytical Report

(consolidated)

WO#: **24050783**

Date Reported: **6/5/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 2:45:00 PM

Project: 24050346

Lab ID: 24050783-010

Matrix: SOLID

Client Sample ID: 24050346-010

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)					**SW9315**	**E903-904**	Analyst: **SMZ**
Radium-226	ND	1.00		pCi/g	± 0.120	1	5/23/2024 10:51:41 AM
Yield	1.00					1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)					**SW9320**	**E903-904**	Analyst: **SMZ**
Radium-228	ND	2.00		pCi/g	± 0.280	1	5/22/2024 3:06:59 PM
Yield	1.00					1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75515**

Sample ID: **MB-75515**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **PBS**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	2.00									
Yield	1.00										

Sample ID: **LCS-75515**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **LCSS**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043899**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.62	2.00	5.000	0	72.4	50	130				

Sample ID: **LCSD-75515**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **LCSS02**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043900**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.01	2.00	5.000	0	60.2	50	130	3.620	18.4	20	

Sample ID: **24041932-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/g-dry**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **BatchQC**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/g-dry** Prep Date: **5/16/2024** RunNo: **186135**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9320** **E903-904** Analysis Date: **5/22/2024** SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	10.4	2.34	11.68	0	88.9	0	0	7.583	31.2	20	RS
Yield	1.17							1.168	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75515**

Sample ID: **MB-75515**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **PBS**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044082**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75515**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **LCSS**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044083**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.20	1.00	5.000	0	124	70	130				

Sample ID: **LCSD-75515**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **LCSS02**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.76	1.00	5.000	0	115	60	140	6.200	7.36	40	

Sample ID: **24041932-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/g-dry**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **BatchQC**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g-dry** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	7.61	1.17						8.133	6.68	20	
Yield	1.17							1.168	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75738**

Sample ID: **MB-75738**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/28/2024**	RunNo: **186695**
Client ID: **PBS**	Batch ID: **75738**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/31/2024**	SeqNo: **5059001**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	2.00									
Yield	1.00										

Sample ID: **LCS-75738**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/28/2024**	RunNo: **186695**
Client ID: **LCSS**	Batch ID: **75738**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/31/2024**	SeqNo: **5059002**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.33	2.00	5.000	0	66.6	50	130				

Sample ID: **LCSD-75738**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/28/2024**	RunNo: **186695**
Client ID: **LCSS02**	Batch ID: **75738**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/31/2024**	SeqNo: **5059003**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.40	2.00	5.000	0	68.0	50	130	3.330	2.08	20	

Sample ID: **24050783-002ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/28/2024**	RunNo: **186695**
Client ID: **24050346-002**	Batch ID: **75738**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/31/2024**	SeqNo: **5059008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75738**

Sample ID: **24050783-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186695**
Client ID: **24050346-002** Batch ID: **75738** TestNo: **SW9320** **E903-904** Analysis Date: **5/31/2024** SeqNo: **5059008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	2.00	10.00	0	0	0	0	0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75738**

Sample ID: **MB-75738** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186696**
Client ID: **PBS** Batch ID: **75738** TestNo: **SW9315** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5059009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75738** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186696**
Client ID: **LCSS** Batch ID: **75738** TestNo: **SW9315** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5059010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.94	1.00	5.000	0	98.8	70	130				

Sample ID: **LCSD-75738** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186696**
Client ID: **LCSS02** Batch ID: **75738** TestNo: **SW9315** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5059011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.81	1.00	5.000	0	96.2	60	140	4.940	2.67	40	

Sample ID: **24050783-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186696**
Client ID: **24050346-002** Batch ID: **75738** TestNo: **SW9315** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5059016**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050783**

05-Jun-24

Client: TEKLAB Inc,
Project: 24050346 **BatchID:** **75738**

Sample ID: **24050783-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g** Prep Date: **5/28/2024** RunNo: **186696**
Client ID: **24050346-002** Batch ID: **75738** TestNo: **SW9315** **E903-904** Analysis Date: **6/3/2024** SeqNo: **5059016**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Pg 1 of 1

24050783

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

18.4-0.2= Cooler Temp: 18.2c Sampler: Client QC Level: 2

Fedex, Cooler

Project# 24050346

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36236 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228		CPM									
	24050346-001	5/2/24 0815	Unpres	Soil	✔		24									
	24050346-002	5/2/24 1100	Unpres	Soil	✔		36									
	24050346-003	5/2/24 1115	Unpres	Soil	✔		24									
	24050346-004	5/2/24 1530	Unpres	Soil	✔		24									
	24050346-005	5/2/24 1450	Unpres	Soil	✔		28									
	24050346-006	4/30/24 1015	Unpres	Soil	✔		20									
	24050346-007	4/30/24 1015	Unpres	Soil	✔		30									
	24050346-008	4/29/24 1500	Unpres	Soil	✔		24									
	24050346-009	4/29/24 0930	Unpres	Soil	✔		38									
	24050346-010	4/30/24 1445	Unpres	Soil	✔		34									
			Other	Aqueous												

*Relinquished By	Date/Time	Received By	Date/Time
[signature]	5/16/24 1700	[signature]	5/19/24, 1140

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050783 RcptNo: 1

Logged by:	Tegan A. Richards	5/9/2024 11:40:00 AM	Tegan Richards
Completed By:	Tegan A. Richards	5/10/2024 12:09:39 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	5/10/2024 5:04:45 PM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	18.2	Good	Not Present			

May 28, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050428

Dear Eric Staley:

TEKLAB, INC received 2 samples on 5/6/2024 12:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050428
Report Date: 28-May-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	9
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050428

Client Project: CWLP Borings **Report Date:** 28-May-24

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24050428
Client Project: CWLP Borings
Report Date: 28-May-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050428
Report Date: 28-May-24

Cooler Receipt Temp: 3.5 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050428

Client Project: CWLP Borings

Report Date: 28-May-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050428
Client Project: CWLP Borings
Report Date: 28-May-24
Lab ID: 24050428-001
Client Sample ID: L5 19.5-21.5
Matrix: SOLID
Collection Date: 05/03/2024 8:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	31	50		**67**	mg/L	5	05/15/2024 13:32	R347372
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10		**0.36**	mg/L	1	05/13/2024 9:06	R347147
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**6**	mg/L	1	05/14/2024 20:03	R347274
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.14**		1	05/07/2024 10:21	R346852
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0276**	mg/L	1	05/15/2024 12:27	222893
Barium	NELAP	0.0150	0.0450		**0.574**	mg/L	1	05/15/2024 12:27	222893
Beryllium	NELAP	0.0002	0.0010		**0.0049**	mg/L	1	05/15/2024 12:27	222893
Boron	NELAP	0.250	1.00		**2.32**	mg/L	1	05/21/2024 8:27	223096
Cadmium	NELAP	0.0005	0.0020		**0.149**	mg/L	1	05/15/2024 12:27	222893
Chromium	NELAP	0.0034	0.010	J	**0.0082**	mg/L	1	05/15/2024 12:27	222893
Cobalt	NELAP	0.0020	0.0060		**0.0218**	mg/L	1	05/15/2024 12:27	222893
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/15/2024 12:27	222893
Molybdenum	NELAP	0.0037	0.010	J	**0.0081**	mg/L	1	05/15/2024 12:27	222893
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/15/2024 12:27	222893
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0072**	mg/L	5	05/16/2024 18:27	222893
Lithium	*	0.0015	0.0030		**0.0153**	mg/L	5	05/16/2024 18:27	222893
Thallium	NELAP	0.0010	0.0020		**0.0199**	mg/L	5	05/16/2024 18:27	222893
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/18/2024 12:42	222892
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**0.0331**	mg/L	1	05/17/2024 17:00	222963
Barium	NELAP	0.0150	0.0450		**0.0596**	mg/L	1	05/17/2024 17:00	222963
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/17/2024 17:00	222963
Boron	NELAP	0.250	1.00		**1.05**	mg/L	1	05/17/2024 17:00	222963
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/17/2024 17:00	222963
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/17/2024 17:00	222963
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/17/2024 17:00	222963
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/17/2024 17:00	222963
Molybdenum	NELAP	0.0037	0.010	J	**0.0076**	mg/L	1	05/17/2024 17:00	222963
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/17/2024 17:00	222963
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0067**	mg/L	5	05/17/2024 9:22	222963
Lithium	*	0.0015	0.0030	J	**0.0027**	mg/L	5	05/16/2024 14:37	222963
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	05/16/2024 14:37	222963
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 14:08	222116
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896

Client: City Water, Light & Power
Work Order: 24050428
Client Project: CWLP Borings
Report Date: 28-May-24
Lab ID: 24050428-002
Client Sample ID: L5 32.5-35.2
Matrix: SOLID
Collection Date: 05/03/2024 9:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D3987, SW-846 9036, IN SHAKE EXTRACT (TOTAL)									
Sulfate, SHAKE	*	31	50		**73**	mg/L	5	05/15/2024 13:35	R347372
ASTM D3987, SW-846 9214, IN SHAKE EXTRACT									
Fluoride	*	0.04	0.10	J	**0.08**	mg/L	1	05/13/2024 9:11	R347147
ASTM D3987, SW-846 9251, IN SHAKE EXTRACT									
Chloride, SHAKE	*	1	4		**11**	mg/L	1	05/14/2024 20:11	R347274
SW-846 9045C									
pH (1:1)	NELAP	0	1.00		**8.27**		1	05/07/2024 10:22	R346852
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/17/2024 17:06	222894
Barium	NELAP	0.0150	0.0450		**1.24**	mg/L	1	05/15/2024 12:38	222894
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/15/2024 12:38	222894
Boron	NELAP	0.250	1.00		**2.79**	mg/L	1	05/20/2024 9:22	223102
Cadmium	NELAP	0.0005	0.0020		**0.0022**	mg/L	1	05/15/2024 12:38	222894
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/15/2024 12:38	222894
Cobalt	NELAP	0.0020	0.0060	J	**0.0043**	mg/L	1	05/15/2024 12:38	222894
Lead	NELAP	0.0045	0.0075		**< 0.0075**	mg/L	1	05/15/2024 12:38	222894
Molybdenum	NELAP	0.0037	0.0100		**0.0375**	mg/L	1	05/15/2024 12:38	222894
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/15/2024 12:38	222894
SW-846 1311, 3010A, 6020A, METALS IN TCLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0004	0.0010		**0.0017**	mg/L	5	05/16/2024 18:07	222894
Lithium	*	0.0015	0.0030		**0.0183**	mg/L	5	05/16/2024 18:07	222894
Thallium	NELAP	0.0010	0.0020		**0.0021**	mg/L	5	05/16/2024 18:07	222894
SW-846 1311, 7470A IN TCLP EXTRACT									
Mercury	NELAP	0.00010	0.00020		**< 0.00020**	mg/L	1	05/18/2024 13:19	222895
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Arsenic	NELAP	0.0087	0.0100		**< 0.0100**	mg/L	1	05/17/2024 17:02	222963
Barium	NELAP	0.015	0.045	J	**0.023**	mg/L	1	05/17/2024 17:02	222963
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	1	05/17/2024 17:02	222963
Boron	NELAP	0.250	1.00		**2.15**	mg/L	1	05/17/2024 17:02	222963
Cadmium	NELAP	0.0005	0.0020		**< 0.0020**	mg/L	1	05/17/2024 17:02	222963
Chromium	NELAP	0.0034	0.0100		**< 0.0100**	mg/L	1	05/17/2024 17:02	222963
Cobalt	NELAP	0.0020	0.0060		**< 0.0060**	mg/L	1	05/17/2024 17:02	222963
Lead	NELAP	0.0040	0.0075		**< 0.0075**	mg/L	1	05/17/2024 17:02	222963
Molybdenum	NELAP	0.0037	0.0100		**0.0904**	mg/L	1	05/17/2024 17:02	222963
Selenium	NELAP	0.0170	0.0500		**< 0.0500**	mg/L	1	05/17/2024 17:02	222963
SW-846 1312, 3005A, 6020A, METALS IN SPLP EXTRACT BY ICPMS									
Antimony	NELAP	0.0005	0.0010		**0.0025**	mg/L	5	05/16/2024 14:21	222963
Lithium	*	0.0015	0.0030		**0.0033**	mg/L	5	05/16/2024 14:21	222963
Thallium	NELAP	0.0010	0.0020	J	**0.0019**	mg/L	5	05/16/2024 14:21	222963
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00006	0.00020		**< 0.00020**	mg/L	1	05/18/2024 14:11	222116
EPA 903/904, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896
Radium-228	*	0	0		**See Attached**	pCi/Kg	1	05/22/2024 0:00	R347896

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050428
Report Date: 28-May-24

Carrier: Paul Reeves

Received By: NR

Completed by: Amber Dilallo
On: 06-May-24

Reviewed by: Ellie Hopkins
On: 06-May-24

Pages to follow: Chain of custody 1 Extra pages included 16

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 3.5
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	NA ☑	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

Samples requiring pH should be analyzed as soon as possible after collection. Samples submitted for pH analysis are analyzed as soon as practicable upon arrival at the laboratory. - amberdilallo - 5/6/2024 1:04:15 PM

Print PDF

CHAIN OF CUSTODY

Pg __ of __ Workorder # 2405042Y

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 3-5 °C CT6 #7
Preserved in: ☐ LAB ☐ FIELD
FOR LAB USE ONLY
LAB NOTES: TEKLAB

Client Comments: Courier
TCLP & SPLP for all metals

email results to C. Grey and datamanagement@andrews-eng.com

Are these samples known to be involved in litigation? If yes, a surcharge will apply: ☐ Yes ☐ No
Are these samples known to be hazardous? ☐ Yes ☐ No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: ☐ Yes ☐ No

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
CWLP Borings	S. Van Hook

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Rad 226 and 228	TCLP & SPLP Sb, As, Ba, Be	TCLP & SPLP B, Cd, Cr, Co, Pb, Se, Tl	TCLP & SPLP Li, Mo	TCLP & SPLP Hg	Neutral Leach Cl, F-, SO4	pH
2405042Y 001	LS 19.5 - 21.5	5/3/2024 8:30AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
002	LS 32.5 - 35.2	5/3/2024 9:00AM	Soil	2									✓	✓	✓	✓	✓	✓	✓
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															
			Soil	2															

Relinquished By	Date/Time	Received By	Date/Time
Steve Van Hook	5/3/2024 12:30pm	Paul Mix	5.6.24 0820
Paul Mix	5.6.24 1200	Rich Reed	5/6/24 1200

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

MR 5/6

Summit Environmental Technologies, Inc.
3310 Win St.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

May 28, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050428

Dear Shelly Hennessy:

Order No.: 24050795

Summit Environmental Technologies, Inc. received 2 sample(s) on 5/9/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **24050795**
Date: **5/28/2024**

CLIENT: TEKLAB Inc,
Project: 24050428

WorkOrder Narrative:
24050795: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
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Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44&
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050795**
Date: **5/28/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24050795**

28-May-24

CLIENT: TEKLAB Inc,
Project: 24050428

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050795-001	24050428-001		5/3/2024 8:30:00 AM	5/9/2024 11:40:00 AM	Solid
24050795-002	24050428-002		5/3/2024 9:00:00 AM	5/9/2024 11:40:00 AM	Solid

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DATES REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,

Project: 24050428

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050795-001A	24050428-001	5/3/2024 8:30:00 AM	Solid	Percent Moisture by SM2540Mod			5/25/2024 3:45:00 PM
				Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM
24050795-002A	24050428-002	5/3/2024 9:00:00 AM		Percent Moisture by SM2540Mod			5/25/2024 3:45:00 PM
				Radium-226 Analysis (9315)		5/16/2024 11:10:22 AM	5/23/2024 10:51:41 AM
				Radium-228 Analysis (9320)		5/16/2024 11:10:22 AM	5/22/2024 3:06:59 PM

Original

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Analytical Report

(consolidated)

WO#: **24050795**

Date Reported: **5/28/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/3/2024 8:30:00 AM

Project: 24050428

Lab ID: 24050795-001

Matrix: SOLID

Client Sample ID: 24050428-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)				**SW9315**	**E903-904**	Analyst: **SMZ**	
Radium-226	ND	1.66		pCi/g-dry	± 0.160	1	5/23/2024 10:51:41 AM
Yield	1.66			-dry		1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)				**SW9320**	**E903-904**	Analyst: **SMZ**	
Radium-228	ND	3.31		pCi/g-dry	± 0.320	1	5/22/2024 3:06:59 PM
Yield	1.66			-dry		1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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Analytical Report

(consolidated)

WO#: **24050795**

Date Reported: **5/28/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/3/2024 9:00:00 AM

Project: 24050428

Lab ID: 24050795-002

Matrix: SOLID

Client Sample ID: 24050428-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 ANALYSIS (9315)				**SW9315**	**E903-904**		Analyst: **SMZ**
Radium-226	ND	1.77		pCi/g-dry	± 0.0600	1	5/23/2024 10:51:41 AM
Yield	1.77			-dry		1	5/23/2024 10:51:41 AM
RADIUM-228 ANALYSIS (9320)				**SW9320**	**E903-904**		Analyst: **SMZ**
Radium-228	ND	3.55		pCi/g-dry	± 0.320	1	5/22/2024 3:06:59 PM
Yield	1.77			-dry		1	5/22/2024 3:06:59 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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Analytical Report

(base report)

WO#: **24050795**

Date Reported: **5/28/2024**

CLIENT: TEKLAB Inc,
Matrix: SOLID
Lab ID: 24050795-001A
Project: 24050428
Client Sample ID 24050428-001

Tag Number:
Collection Date: 5/3/2024 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE BY SM2540MOD				**A2540B**		Analyst: **AAA**
Percent Moisture	39.6	0.500		%	1	5/25/2024 3:45:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

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Analytical Report

(base report)

WO#: **24050795**

Date Reported: **5/28/2024**

CLIENT: TEKLAB Inc,
Matrix: SOLID
Lab ID: 24050795-002A
Project: 24050428
Client Sample ID 24050428-002

Tag Number:
Collection Date: 5/3/2024 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE BY SM2540MOD				**A2540B**		Analyst: **AAA**
Percent Moisture	43.6	0.500		%	1	5/25/2024 3:45:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,
Project: 24050428 **BatchID:** **75515**

Sample ID: **MB-75515**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **PBS**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	2.00									
Yield	1.00										

Sample ID: **LCS-75515**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **LCSS**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043899**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.62	2.00	5.000	0	72.4	50	130				

Sample ID: **LCSD-75515**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **LCSS02**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043900**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.01	2.00	5.000	0	60.2	50	130	3.620	18.4	20	

Sample ID: **24041932-001ADUP**	SampType: **DUP**	TestCode: **Radium-228_**	Units: **pCi/g-dry**	Prep Date: **5/16/2024**	RunNo: **186135**
Client ID: **BatchQC**	Batch ID: **75515**	TestNo: **SW9320**	**E903-904**	Analysis Date: **5/22/2024**	SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,
Project: 24050428 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/g-dry** Prep Date: **5/16/2024** RunNo: **186135**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9320** **E903-904** Analysis Date: **5/22/2024** SeqNo: **5043905**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	10.4	2.34	11.68	0	88.9	0	0	7.583	31.2	20	RS
Yield	1.17							1.168	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,
Project: 24050428 **BatchID:** **75515**

Sample ID: **MB-75515**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **PBS**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044082**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75515**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **LCSS**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044083**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	6.20	1.00	5.000	0	124	70	130				

Sample ID: **LCSD-75515**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/g**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **LCSS02**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.76	1.00	5.000	0	115	60	140	6.200	7.36	40	

Sample ID: **24041932-001ADUP**	SampType: **DUP**	TestCode: **Radium-226_**	Units: **pCi/g-dry**	Prep Date: **5/16/2024**	RunNo: **186145**
Client ID: **BatchQC**	Batch ID: **75515**	TestNo: **SW9315**	**E903-904**	Analysis Date: **5/23/2024**	SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,
Project: 24050428 **BatchID:** **75515**

Sample ID: **24041932-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/g-dry** Prep Date: **5/16/2024** RunNo: **186145**
Client ID: **BatchQC** Batch ID: **75515** TestNo: **SW9315** **E903-904** Analysis Date: **5/23/2024** SeqNo: **5044089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	7.61	1.17						8.133	6.68	20	
Yield	1.17							1.168	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050795**

28-May-24

Client: TEKLAB Inc,
Project: 24050428 **BatchID:** **R186329**

Sample ID: **MB-R186329**	SampType: **MBLK**	TestCode: **PctMoist_S(2**	Units: **%**	Prep Date:	RunNo: **186329**
Client ID: **PBS**	Batch ID: **R186329**	TestNo: **A2540B**		Analysis Date: **5/25/2024**	SeqNo: **5049039**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	ND	0.500									

Sample ID: **24051805-006ADUP**	SampType: **DUP**	TestCode: **PctMoist_S(2**	Units: **%**	Prep Date:	RunNo: **186329**
Client ID: **BatchQC**	Batch ID: **R186329**	TestNo: **A2540B**		Analysis Date: **5/25/2024**	SeqNo: **5049048**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	17.8	0.500						17.37	2.41	5	

Sample ID: **24051777-003ADUP**	SampType: **DUP**	TestCode: **PctMoist_S(2**	Units: **%**	Prep Date:	RunNo: **186329**
Client ID: **BatchQC**	Batch ID: **R186329**	TestNo: **A2540B**		Analysis Date: **5/25/2024**	SeqNo: **5049058**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	7.92	0.500						7.909	0.187	5	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Pg ___ of ___ 24050795

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

18.4-0.2 = 18.2

Cooler Temp: 18.2 Sampler: Client QC Level: 2

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Fedex, Cooler

Project# 24050428

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36234 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228											
							CPM									
	24050428-001	5/3/24 0830	Unpres	Soil	✔		32									
	24050428-002	5/3/24 0900	Unpres	Soil	✔		22									
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												

*Relinquished By	Date/Time	Received By	Date/Time
Omar Rivera	5/9/24 1200		5/9/24, 1140

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights,

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050795 RcptNo: 1

Logged by:	Tegan A. Richards	5/9/2024 11:40:00 AM	Tegan Richards
Completed By:	Tegan A. Richards	5/10/2024 12:25:27 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	5/10/2024 5:06:15 PM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	18.2	Good	Not Present			

Shallow Borehole Grab Sample Analyses

May 29, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050236

Dear Eric Staley:

TEKLAB, INC received 4 samples on 5/2/2024 1:11:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	11
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050236

Client Project: CWLP Borings **Report Date:** 29-May-24

Abbr Definition

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050236
Report Date: 29-May-24

Cooler Receipt Temp: 5.9 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050236

Client Project: CWLP Borings

Report Date: 29-May-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24
Lab ID: 24050236-001
Client Sample ID: D-2 20ft.
Matrix: GROUNDWATER
Collection Date: 04/29/2024 9:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1720**	mg/L	50	05/09/2024 11:05	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**9.27**		1	05/03/2024 10:33	R346719
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.21**	mg/L	1	05/09/2024 12:19	R347045
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**236**	mg/L	10	05/07/2024 18:33	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.022	0.050	J	**0.024**	mg/L	250	05/10/2024 14:10	222410
Arsenic	NELAP	0.0200	0.0500		**0.279**	mg/L	250	05/10/2024 14:10	222410
Barium	NELAP	0.0350	0.0500		**1.13**	mg/L	250	05/10/2024 14:10	222410
Beryllium	NELAP	0.0125	0.0500		**0.0640**	mg/L	250	05/10/2024 14:10	222410
Boron	NELAP	0.462	1.25		**89.0**	mg/L	250	05/10/2024 14:10	222410
Cadmium	NELAP	0.0075	0.0500		**0.0541**	mg/L	250	05/13/2024 13:49	222410
Chromium	NELAP	0.0350	0.0750		**0.902**	mg/L	250	05/10/2024 14:10	222410
Cobalt	NELAP	0.0058	0.0500		**0.0579**	mg/L	250	05/13/2024 13:49	222410
Lead	NELAP	0.0300	0.0500		**0.199**	mg/L	250	05/10/2024 14:10	222410
Lithium	*	0.0725	0.150		**0.154**	mg/L	250	05/10/2024 14:10	222410
Molybdenum	NELAP	0.0300	0.0750		**8.04**	mg/L	250	05/15/2024 3:31	222410
Selenium	NELAP	0.0300	0.0500		**< 0.0500**	mg/L	250	05/10/2024 14:10	222410
Thallium	NELAP	0.048	0.10	J	**0.049**	mg/L	250	05/10/2024 14:10	222410

Elevated reporting limit due to matrix interference.

Contamination present in the CCB for Sb. Sample results below the reporting limit are reportable per the TNI Standard.

SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00046**	mg/L	1	05/24/2024 12:57	223373
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24
Lab ID: 24050236-002
Client Sample ID: D-1 25ft.
Matrix: GROUNDWATER
Collection Date: 04/29/2024 15:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1740**	mg/L	50	05/09/2024 11:08	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**9.85**		1	05/03/2024 10:34	R346719
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.32**	mg/L	1	05/09/2024 12:22	R347045
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**63**	mg/L	10	05/07/2024 18:41	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.060	0.10	J	**0.061**	mg/L	500	05/10/2024 13:02	222414
Arsenic	NELAP	0.0400	0.100		**1.17**	mg/L	500	05/10/2024 13:02	222414
Barium	NELAP	0.0700	0.100		**2.48**	mg/L	500	05/10/2024 13:02	222414
Beryllium	NELAP	0.0250	0.100		**0.254**	mg/L	500	05/10/2024 13:02	222414
Boron	NELAP	0.925	2.50		**78.6**	mg/L	500	05/10/2024 13:02	222414
Cadmium	NELAP	0.0150	0.100		**0.222**	mg/L	500	05/13/2024 17:43	222414
Chromium	NELAP	0.0700	0.150		**3.91**	mg/L	500	05/10/2024 13:02	222414
Cobalt	NELAP	0.0115	0.100		**0.241**	mg/L	500	05/13/2024 17:43	222414
Lead	NELAP	0.0600	0.100		**1.04**	mg/L	500	05/10/2024 13:02	222414
Lithium	*	0.145	0.300		**0.428**	mg/L	500	05/10/2024 13:02	222414
Molybdenum	NELAP	0.0600	0.150		**15.7**	mg/L	500	05/15/2024 5:53	222414
Selenium	NELAP	0.060	0.10	J	**0.10**	mg/L	500	05/10/2024 13:02	222414
Thallium	NELAP	0.095	0.20	J	**0.13**	mg/L	500	05/10/2024 13:02	222414
Elevated reporting limit due to matrix interference.									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00562**	mg/L	1	05/14/2024 17:39	222568
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24
Lab ID: 24050236-003
Client Sample ID: D-3 20ft.
Matrix: GROUNDWATER
Collection Date: 04/30/2024 10:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1000**	mg/L	50	05/09/2024 11:13	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**10.1**		1	05/03/2024 10:36	R346719
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.33**	mg/L	1	05/09/2024 12:23	R347045
SW-846 9251 (TOTAL)									
Chloride	NELAP	1	4		**41**	mg/L	1	05/07/2024 18:43	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0650	0.100		**0.230**	mg/L	500	05/10/2024 10:39	222461
Arsenic	NELAP	0.0800	0.200		**2.33**	mg/L	1000	05/10/2024 9:43	222461
Barium	NELAP	0.0700	0.100		**3.51**	mg/L	500	05/10/2024 10:39	222461
Beryllium	NELAP	0.0250	0.100		**0.439**	mg/L	500	05/10/2024 10:39	222461
Boron	NELAP	0.925	2.50		**105**	mg/L	500	05/10/2024 10:39	222461
Cadmium	NELAP	0.0300	0.200		**0.492**	mg/L	1000	05/14/2024 15:24	222461
Chromium	NELAP	0.140	0.300		**6.25**	mg/L	1000	05/10/2024 9:43	222461
Cobalt	NELAP	0.0230	0.200		**0.323**	mg/L	1000	05/10/2024 9:43	222461
Lead	NELAP	0.0600	0.100		**1.46**	mg/L	500	05/10/2024 10:39	222461
Lithium	*	0.145	0.300		**0.571**	mg/L	500	05/10/2024 10:39	222461
Molybdenum	NELAP	0.140	0.300		**2.61**	mg/L	1000	05/16/2024 7:35	222461
Selenium	NELAP	0.12	0.20	J	**0.13**	mg/L	1000	05/10/2024 9:43	222461
Thallium	NELAP	0.0950	0.200		**0.274**	mg/L	500	05/10/2024 10:39	222461
Elevated reporting limit due to matrix interference.									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00055	0.00200	H	**0.00685**	mg/L	10	05/29/2024 12:19	223513
Sample required re-analysis out of hold time.									
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Client: City Water, Light & Power
Work Order: 24050236
Client Project: CWLP Borings
Report Date: 29-May-24
Lab ID: 24050236-004
Client Sample ID: D-4 20ft.
Matrix: GROUNDWATER
Collection Date: 04/30/2024 14:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**2050**	mg/L	50	05/09/2024 11:16	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**9.10**		1	05/03/2024 10:37	R346719
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.43**	mg/L	1	05/09/2024 12:25	R347045
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**139**	mg/L	10	05/07/2024 18:57	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0180	0.0400		**0.0812**	mg/L	200	05/15/2024 10:35	222764
Arsenic	NELAP	0.0400	0.100		**0.378**	mg/L	500	05/15/2024 10:29	222764
Barium	NELAP	0.0350	0.0500		**0.975**	mg/L	250	05/16/2024 9:42	222764
Beryllium	NELAP	0.0002	0.0010		**0.0674**	mg/L	5	05/14/2024 23:46	222764
Boron	NELAP	0.462	1.25		**73.1**	mg/L	250	05/16/2024 9:42	222764
Cadmium	NELAP	0.015	0.10	J	**0.068**	mg/L	500	05/15/2024 10:29	222764
Chromium	NELAP	0.0700	0.150		**1.03**	mg/L	500	05/15/2024 10:29	222764
Cobalt	NELAP	0.012	0.10	J	**0.061**	mg/L	500	05/15/2024 10:29	222764
Lead	NELAP	0.0240	0.0400		**0.266**	mg/L	200	05/15/2024 10:35	222764
Lithium	*	0.0725	0.150		**0.228**	mg/L	250	05/16/2024 9:42	222764
Molybdenum	NELAP	0.0600	0.150		**2.30**	mg/L	500	05/15/2024 10:29	222764
Selenium	NELAP	0.060	0.10	J	**0.090**	mg/L	500	05/15/2024 10:29	222764
Thallium	NELAP	0.038	0.080	J	**0.066**	mg/L	200	05/15/2024 10:35	222764
Elevated reporting limit due to sample composition.									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00717**	mg/L	1	05/14/2024 17:44	222568
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Receiving Check List

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050236
Report Date: 29-May-24

Carrier: Paul Reeves
Received By: NR

Completed by: Amber Dilallo
On: 02-May-24

Reviewed by: Ellie Hopkins
On: 02-May-24

Pages to follow: Chain of custody 1 Extra pages included 18

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 5.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☐	No ☑		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☐	No ☑		
Reported field parameters measured:	Field ☐	Lab ☑	NA ☐	

Sample analyses to be measured in the field and/or within 15 minutes of collection were analyzed in the lab as soon as practicable. These analyses include Chlorine (demand, free and/or residual), Carbon Dioxide, Dissolved Oxygen, Ferrous Iron, pH, and Sulfite.

Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Any No responses must be detailed below or on the COC.

Samples were preserved with Nitric Acid (97606) upon arrival at the laboratory. - amberdilallo - 5/2/2024 3:15:00 PM

pH strip #96651. - amberdilallo - 5/2/2024 3:15:13 PM

D-1 25ft. labeled as collected at 1430 rather than 1500. Collen Grey was notified of this error via work order summary. - amberdilallo - 5/2/2024 3:15:45 PM

CHAIN OF CUSTODY

Pg __ of __ Workorder # 24050236

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 5.9 °C #7
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: Added HNO3 (9606) to all um 5/2 *14:30 on container (ump) 9606?

Client Comments:
email results to C. Grey and datamanagement@andrews-eng.com

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No
Are these samples known to be hazardous? [ ] Yes [ ] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
CWLP Borings	S. Van Hook

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Rad 226 and 228	Sb, As, Ba, Be	B, Cd, Cr, Co, Pb, Se, Tl	Li, Mo	Hg	Cl, F+, SO4	pH
2405023600 1	D-2 20ft.	4/29/24 9:30am	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
002	D-1 25ft.	4/29/24 3pm*	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
003	D-3 20ft.	4/30/24 10am	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
004	D-4 20ft.	4/30/24 2:45pm	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
Steven Van Hook	4/30/24 5:30pm	ASI Secure Storage	4/30/24 17:30
eurofins Custody Seal #1697609			
ASI Secure Storage cmg	5/2/24 7:40		5-2-24 0746
	5.2.24 1311	Mark Reed	5/2/24 1311

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

May 22, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050236

Dear Shelly Hennessy:

Order No.: 24050483

Summit Environmental Technologies, Inc. received 4 sample(s) on 5/6/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **24050483**
Date: **5/22/2024**

CLIENT: TEKLAB Inc,
Project: 24050236

WorkOrder Narrative:
24050483: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Sample Fraction:
Per Chain of Custody note: Analyze Aqueous layer only.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
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Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050483**
Date: **5/22/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24050483**

22-May-24

CLIENT: TEKLAB Inc,
Project: 24050236

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050483-001	24050236-001		4/29/2024 9:30:00 AM	5/6/2024 10:00:00 AM	Non-Potable Water
24050483-002	24050236-002		4/29/2024 3:00:00 PM	5/6/2024 10:00:00 AM	Non-Potable Water
24050483-003	24050236-003		4/30/2024 10:00:00 AM	5/6/2024 10:00:00 AM	Non-Potable Water
24050483-004	24050236-004		4/30/2024 2:45:00 PM	5/6/2024 10:00:00 AM	Non-Potable Water

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DATES REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,

Project: 24050236

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050483-001A	24050236-001	4/29/2024 9:30:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM
24050483-002A	24050236-002	4/29/2024 3:00:00 PM		Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM
24050483-003A	24050236-003	4/30/2024 10:00:00 AM		Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM
24050483-004A	24050236-004	4/30/2024 2:45:00 PM		Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
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Analytical Report

(consolidated)

WO#: **24050483**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/29/2024 9:30:00 AM

Project: 24050236

Lab ID: 24050483-001

Matrix: NON-POTABLE WATER

Client Sample ID: 24050236-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	4.63	1.67		pCi/L	± 0.590	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	2.18	1.67		pCi/L	± 0.800	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **24050483**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/29/2024 3:00:00 PM

Project: 24050236

Lab ID: 24050483-002

Matrix: NON-POTABLE WATER

Client Sample ID: 24050236-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.43		pCi/L	± 0.250	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.43		pCi/L	± 0.570	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

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Analytical Report

(consolidated)

WO#: **24050483**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 10:00:00 AM

Project: 24050236

Lab ID: 24050483-003

Matrix: NON-POTABLE WATER

Client Sample ID: 24050236-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	2.50		pCi/L	± 0.470	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	2.50		pCi/L	± 0.800	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
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Analytical Report

(consolidated)

WO#: **24050483**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 4/30/2024 2:45:00 PM

Project: 24050236

Lab ID: 24050483-004

Matrix: NON-POTABLE WATER

Client Sample ID: 24050236-004

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	3.34		pCi/L	± 0.580	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	3.34		pCi/L	± 1.24	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **24050495-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	1.00			0	0			1.000	0		

Sample ID: **24050495-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **MB-75217** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **PBW** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040004**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-75217** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **LCSW** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040005**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.36	1.00	5.000	0	67.2	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-75217** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **LCSS02** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.00	1.00	5.000	0	100	50	130	3.360	39.2	20	R
Yield	0.960			0	0			1.000	4.08		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **RLC-75217**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **BatchQC**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.14	1.00	1.000	0	114	50	150				
Yield	1.00			0	0						

Sample ID: **RLCD-75217**	SampType: **RLC**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **BatchQC**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	87.0	50	150				
Yield	1.00			0	0						

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **24050495-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040150**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Sample ID: **24050495-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040152**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **MB-75217** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **PBW** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040143**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.980										

Sample ID: **LCS-75217** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **LCSW** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040144**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.38	1.00	5.000	0	87.6	70	130				

Sample ID: **LCSD-75217** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **LCSS02** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040145**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.67	1.00	5.000	0	93.4	70	130	4.380	6.41	20	

Sample ID: **RLC-75217** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050483**

22-May-24

Client: TEKLAB Inc,
Project: 24050236 **BatchID:** **75217**

Sample ID: **RLC-75217**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **BatchQC**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	95.0	50	150				

Sample ID: **RLCD-75217**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185975**
Client ID: **BatchQC**	Batch ID: **75217**	TestNo: **E903.0**	**E903-904**	Analysis Date: **5/21/2024**	SeqNo: **5040148**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	99.0	50	150				

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

Pg __ of 24050483

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: 19.5 19.7 0.2 Sampler: Client QC Level: 2

Fedex, cooler

Project# 24050236

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site. Analyze aqueous layers only.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36223 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228											
						CAM					pH					
	24050236-001	4/29/24 0930	HNO3	Groundwater	✔	42, 22					1,3					
	24050236-002	4/29/24 1500	HNO3	Groundwater	✔	34, 38					1,2					
	24050236-003	4/30/24 1000	HNO3	Groundwater	✔	16, ~~5~~ TR 5/7/24					4,					
	24050236-004	4/30/24 1445	HNO3	Groundwater	✔	34, 32					4,5					
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												

*Relinquished By	Date/Time	Received By	Date/Time
Amber Villalpando	5/2/24 1700		5/6/24 1000

One container -003 arrived broken

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws.. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

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3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050483 RcptNo: 1

Logged by:	Tegan A. Richards	5/6/2024 10:00:00 AM	Tegan Richards
Completed By:	Tegan A. Richards	5/7/2024 5:18:50 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	5/8/2024 10:44:21 AM	Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☐ No ☑ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Not required
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☐ No ☑
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☑ No ☐
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

pH for all but 2 containers >2, one container -003 received broken

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050483 RcptNo: 1

May 23, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050347

Dear Eric Staley:

TEKLAB, INC received 3 samples on 5/3/2024 1:50:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050347
Report Date: 23-May-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	10
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050347

Client Project: CWLP Borings **Report Date:** 23-May-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: City Water, Light & Power
Work Order: 24050347
Client Project: CWLP Borings
Report Date: 23-May-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Client: City Water, Light & Power
Work Order: 24050347
Client Project: CWLP Borings
Report Date: 23-May-24

Cooler Receipt Temp: 3.7 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050347

Client Project: CWLP Borings

Report Date: 23-May-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050347
Client Project: CWLP Borings
Report Date: 23-May-24
Lab ID: 24050347-001
Client Sample ID: L4 18ft.
Matrix: GROUNDWATER
Collection Date: 05/02/2024 8:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1050**	mg/L	50	05/09/2024 11:21	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**7.35**		1	05/06/2024 14:09	R346778
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**1.19**	mg/L	1	05/10/2024 14:31	R347102
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**154**	mg/L	10	05/07/2024 19:05	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**0.0020**	mg/L	5	05/16/2024 10:42	222862
Arsenic	NELAP	0.0004	0.0010		**0.0512**	mg/L	5	05/08/2024 20:10	222470
Barium	NELAP	0.0008	0.0010		**0.308**	mg/L	5	05/08/2024 20:10	222470
Beryllium	NELAP	0.0002	0.0010		**0.0024**	mg/L	5	05/08/2024 20:10	222470
Boron	NELAP	0.0092	0.0250		**2.15**	mg/L	5	05/08/2024 20:10	222470
Cadmium	NELAP	0.0002	0.0010		**0.0019**	mg/L	5	05/14/2024 4:27	222470
Chromium	NELAP	0.0009	0.0015		**0.0632**	mg/L	5	05/08/2024 20:10	222470
Cobalt	NELAP	0.0002	0.0010		**0.0213**	mg/L	5	05/08/2024 20:10	222470
Lead	NELAP	0.0006	0.0010		**0.0526**	mg/L	5	05/15/2024 14:55	222862
Lithium	*	0.0015	0.0030		**0.0288**	mg/L	5	05/08/2024 20:10	222470
Molybdenum	NELAP	0.0006	0.0015		**0.0218**	mg/L	5	05/10/2024 18:38	222470
Selenium	NELAP	0.0006	0.0010		**0.0066**	mg/L	5	05/08/2024 20:10	222470
Thallium	NELAP	0.0010	0.0020	J	**0.0012**	mg/L	5	05/08/2024 20:10	222470
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00050**	mg/L	1	05/20/2024 14:24	223152
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Client: City Water, Light & Power **Work Order:** 24050347

Client Project: CWLP Borings **Report Date:** 23-May-24

Lab ID: 24050347-002 **Client Sample ID:** L3-20ft.

Matrix: GROUNDWATER **Collection Date:** 05/02/2024 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	614	1000		**2660**	mg/L	100	05/10/2024 12:35	R347112
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**8.10**		1	05/06/2024 14:10	R346778
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**1.07**	mg/L	1	05/10/2024 10:26	R347102
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**269**	mg/L	10	05/07/2024 19:26	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0180	0.0400	B	**0.0655**	mg/L	200	05/14/2024 15:36	222470
Arsenic	NELAP	0.0080	0.0200		**2.43**	mg/L	100	05/10/2024 19:03	222470
Barium	NELAP	0.0140	0.0200		**1.49**	mg/L	100	05/10/2024 19:03	222470
Beryllium	NELAP	0.0050	0.0200		**0.102**	mg/L	100	05/14/2024 4:33	222470
Boron	NELAP	0.370	1.00		**25.8**	mg/L	200	05/14/2024 15:36	222470
Cadmium	NELAP	0.0060	0.0400		**0.260**	mg/L	200	05/17/2024 13:03	222470
Chromium	NELAP	0.0280	0.0600		**2.08**	mg/L	200	05/17/2024 13:03	222470
Cobalt	NELAP	0.0046	0.0400		**0.336**	mg/L	200	05/17/2024 13:03	222470
Lead	NELAP	0.0120	0.0200	B	**3.40**	mg/L	100	05/10/2024 19:03	222470
Lithium	*	0.0290	0.0600		**0.621**	mg/L	100	05/14/2024 4:33	222470
Molybdenum	NELAP	0.0240	0.0600		**0.218**	mg/L	200	05/17/2024 13:03	222470
Selenium	NELAP	0.0120	0.0200		**0.158**	mg/L	100	05/10/2024 19:03	222470
Thallium	NELAP	0.0190	0.0400		**0.0433**	mg/L	100	05/10/2024 19:03	222470
Sample result for Sb exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.									
Sample result for Pb exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00926**	mg/L	1	05/20/2024 15:07	223152
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Client: City Water, Light & Power **Work Order:** 24050347

Client Project: CWLP Borings **Report Date:** 23-May-24

Lab ID: 24050347-003 **Client Sample ID:** L1-20ft.

Matrix: GROUNDWATER **Collection Date:** 05/02/2024 14:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1080**	mg/L	50	05/09/2024 11:29	R347057
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**7.86**		1	05/06/2024 14:12	R346778
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.50**	mg/L	1	05/10/2024 10:28	R347102
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**122**	mg/L	10	05/07/2024 19:34	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.018	0.040	BJ	**0.027**	mg/L	200	05/14/2024 15:42	222470
Arsenic	NELAP	0.0080	0.0200		**0.717**	mg/L	100	05/10/2024 19:09	222470
Barium	NELAP	0.0140	0.0200		**3.48**	mg/L	100	05/10/2024 19:09	222470
Beryllium	NELAP	0.0050	0.0200		**0.0542**	mg/L	100	05/14/2024 4:39	222470
Boron	NELAP	0.370	1.00		**4.91**	mg/L	200	05/14/2024 15:42	222470
Cadmium	NELAP	0.0060	0.0400		**0.0776**	mg/L	200	05/14/2024 15:42	222470
Chromium	NELAP	0.0280	0.0600		**0.993**	mg/L	200	05/14/2024 15:42	222470
Cobalt	NELAP	0.0046	0.0400		**0.154**	mg/L	200	05/14/2024 15:42	222470
Lead	NELAP	0.0120	0.0200	B	**0.655**	mg/L	100	05/10/2024 19:09	222470
Lithium	*	0.0290	0.0600		**0.172**	mg/L	100	05/14/2024 4:39	222470
Molybdenum	NELAP	0.0120	0.0300		**0.161**	mg/L	100	05/17/2024 12:28	222470
Selenium	NELAP	0.0120	0.0200		**0.0906**	mg/L	100	05/10/2024 19:09	222470
Thallium	NELAP	0.0190	0.0400		**< 0.0400**	mg/L	100	05/10/2024 19:09	222470

Elevated reporting limit for Sb & Tl due to matrix interference.

Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.

Sample result for Pb exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.

SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00198**	mg/L	1	05/20/2024 15:09	223152
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715
Radium-228	*	0	0		**See Attached**	pci/L	1	05/20/2024 0:00	R347715

Receiving Check List

Teklab, Inc. Environmental Laboratory

http://www.teklabinc.com/

Client: City Water, Light & Power
Work Order: 24050347
Client Project: CWLP Borings
Report Date: 23-May-24

Carrier: Paul Reeves
Received By: LM

Completed by: Amber Dilallo
On: 03-May-24

Reviewed by: Ellie Hopkins
On: 03-May-24

Pages to follow: Chain of custody 1 Extra pages included 15

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	3.7	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☐	No ☑				
Reported field parameters measured:	Field ☐	Lab ☑	NA ☐			

Sample analyses to be measured in the field and/or within 15 minutes of collection were analyzed in the lab as soon as practicable. These analyses include Chlorine (demand, free and/or residual), Carbon Dioxide, Dissolved Oxygen, Ferrous Iron, pH, and Sulfite.

Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Any No responses must be detailed below or on the COC.

pH strip #96651. - amberdilallo - 5/3/2024 2:40:59 PM

Samples were preserved with Nitric Acid (97606) upon arrival at the laboratory. - amberdilallo - 5/3/2024 2:47:30 PM

Print PDF

CHAIN OF CUSTODY

Pg __ of __ Workorder # 24050347

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 3.2 °C #7
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: Added HNO_3 (97606) 96517

Client Comments:
email results to C. Grey and datamanagement@andrews-eng.com

TEKLAB
Courier

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No
Are these samples known to be hazardous? [ ] Yes [ ] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
CWLP Borings	S. Van Hook

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers									INDICATE ANALYSIS REQUESTED												
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Rad 226 and 228	Sb, As, Ba, Be	B, Cd, Cr, Co, Pb, Se, Tl	Li, Mo	Hg	Cl, F+, SO4	pH							
24050347 001	L4 18ft.	5/2/24 8:40am	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓							
002	L3 - 20ft	5/2/24 10:15am	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓							
003	L1 - 20ft	5/2/24 2:50pm	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓							
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓							
			Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓							
			Groundwater	3	1																					
			Groundwater	3	1																					
			Groundwater	3	1																					
			Groundwater	3	1																					
			Groundwater	3	1																					
			Groundwater	3	1																					

Relinquished By	Date/Time	Received By	Date/Time
	5/2/24 7:00pm	AEI Secure Storage	5/2/24 19:00
AEI Secure Storage	5/3/24 07:28		5.3.24 0728
	5.3.24 1350		5/3/24 1350

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

May 22, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050347

Dear Shelly Hennessy:

Order No.: 24050485

Summit Environmental Technologies, Inc. received 3 sample(s) on 5/7/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **24050485**
Date: **5/22/2024**

CLIENT: TEKLAB Inc,
Project: 24050347

WorkOrder Narrative:
24050485: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence QC Notes:
LCS/LCSD-75217 Radium-228_DW(904.0): LCS and LCSD exhibited a high RPD, individually each LCS/LCSD meets the required criteria.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050485**
Date: **5/22/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **24050485**

22-May-24

CLIENT: TEKLAB Inc,
Project: 24050347

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050485-001	24050347-001		5/2/2024 8:40:00 AM	5/7/2024 11:30:00 AM	Non-Potable Water
24050485-002	24050347-002		5/2/2024 10:15:00 AM	5/7/2024 11:30:00 AM	Non-Potable Water
24050485-003	24050347-003		5/2/2024 2:50:00 PM	5/7/2024 11:30:00 AM	Non-Potable Water

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DATES REPORT

WO#: **24050485**

22-May-24

Client: TEKLAB Inc,

Project: 24050347

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050485-001A	24050347-001	5/2/2024 8:40:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM
24050485-002A	24050347-002	5/2/2024 10:15:00 AM		Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM
24050485-003A	24050347-003	5/2/2024 2:50:00 PM		Radium-226 (EPA 903.0)		5/9/2024 12:47:56 PM	5/21/2024 10:28:00 AM
				Radium-228 (EPA 904.0)		5/9/2024 12:47:56 PM	5/20/2024 3:04:00 PM

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050485**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 8:40:00 AM

Project: 24050347

Lab ID: 24050485-001

Matrix: NON-POTABLE WATER

Client Sample ID: 24050347-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.00		pCi/L	± 0.170	1	5/21/2024 10:28:00 AM
Yield	0.980					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	1.05	1.00		pCi/L	± 0.400	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050485**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 10:15:00 AM

Project: 24050347

Lab ID: 24050485-002

Matrix: NON-POTABLE WATER

Client Sample ID: 24050347-002

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	2.50	2.00		pCi/L	± 0.480	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	2.00		pCi/L	± 0.720	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **24050485**

Date Reported: **5/22/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/2/2024 2:50:00 PM

Project: 24050347

Lab ID: 24050485-003

Matrix: NON-POTABLE WATER

Client Sample ID: 24050347-003

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **DHF**
Radium-226	ND	1.25		pCi/L	± 0.230	1	5/21/2024 10:28:00 AM
Yield	1.00					1	5/21/2024 10:28:00 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **DHF**
Radium-228	ND	1.25		pCi/L	± 0.380	1	5/20/2024 3:04:00 PM
Yield	1.00					1	5/20/2024 3:04:00 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050485**

22-May-24

Client: TEKLAB Inc,
Project: 24050347 **BatchID:** **75217**

Sample ID: **24050495-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	1.00			0	0			1.000	0		

Sample ID: **24050495-002ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185962**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E904.0** **E903-904** Analysis Date: **5/20/2024** SeqNo: **5040013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	30	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050485**

22-May-24

Client: TEKLAB Inc,
Project: 24050347 **BatchID:** **75217**

Sample ID: **MB-75217**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **PBW**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040004**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-75217**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **LCSW**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040005**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.36	1.00	5.000	0	67.2	50	130				QLR
Yield	1.00			0	0						

Sample ID: **LCSD-75217**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **5/9/2024**	RunNo: **185962**
Client ID: **LCSS02**	Batch ID: **75217**	TestNo: **E904.0**	**E903-904**	Analysis Date: **5/20/2024**	SeqNo: **5040006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.00	1.00	5.000	0	100	50	130	3.360	39.2	20	R
Yield	0.960			0	0			1.000	4.08		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

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QC SUMMARY REPORT

WO#: **24050485**

22-May-24

Client: TEKLAB Inc,
Project: 24050347 **BatchID:** **75217**

Sample ID: **24050495-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040150**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Sample ID: **24050495-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **BatchQC** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040152**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050485**

22-May-24

Client: TEKLAB Inc,
Project: 24050347 **BatchID:** **75217**

Sample ID: **MB-75217** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **PBW** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040143**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.980										

Sample ID: **LCS-75217** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **LCSW** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040144**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.38	1.00	5.000	0	87.6	70	130				

Sample ID: **LCSD-75217** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **5/9/2024** RunNo: **185975**
Client ID: **LCSS02** Batch ID: **75217** TestNo: **E903.0** **E903-904** Analysis Date: **5/21/2024** SeqNo: **5040145**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.67	1.00	5.000	0	93.4	70	130	4.380	6.41	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode				

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: Client QC Level: 2

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Project# 24050347

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36229 Phone: (618) 344-1004 ext. 43

24050485

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228	COM	pH										
	24050347-001	05/02/2024 0840	HNO3	Groundwater	✔	32	4										
	24050347-002	05/02/2024 1015	HNO3	Groundwater	✔	20	7.7										
	24050347-003	05/02/2024 1450	HNO3	Groundwater	✔	20	5										
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													
			Other	Aqueous													

*Relinquished By	Date/Time	Received By	Date/Time
	5/3/24	5/7/24 1130 FedEx ground cooler, no ice 19.9-0.2=19.7	

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights.

SubCocRevA

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050485 RcptNo: 1

Logged by:	Christina N. Gemma	5/7/2024 11:30:00 AM	C. Gemma
Completed By:	Christina N. Gemma	5/7/2024 5:22:56 PM	C. Gemma
Reviewed By:	Jennifer Woolf	5/8/2024 10:54:58 AM	Jennifer Woolf

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date: Signed By:			
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☑	No ☐	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

pH received >2, one of two containers of 003 received broken (no volume remains).

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050485 RcptNo: 1

June 18, 2024

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: CWLP Borings **WorkOrder:** 24050429

Dear Eric Staley:

TEKLAB, INC received 1 sample on 5/6/2024 12:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A Hennessy

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com

Report Contents

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050429
Report Date: 18-Jun-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	8
Chain of Custody	Appended

Client: City Water, Light & Power **Work Order:** 24050429

Client Project: CWLP Borings **Report Date:** 18-Jun-24

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Definitions

Client: City Water, Light & Power
Work Order: 24050429
Client Project: CWLP Borings
Report Date: 18-Jun-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050429
Report Date: 18-Jun-24

Cooler Receipt Temp: 3.5 °C

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: City Water, Light & Power

Work Order: 24050429

Client Project: CWLP Borings

Report Date: 18-Jun-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: City Water, Light & Power
Work Order: 24050429
Client Project: CWLP Borings
Report Date: 18-Jun-24
Lab ID: 24050429-001
Client Sample ID: L5 20ft.
Matrix: GROUNDWATER
Collection Date: 05/03/2024 8:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9036 (TOTAL)									
Sulfate	NELAP	614	1000		**2620**	mg/L	100	05/10/2024 12:38	R347112
SW-846 9040B, LABORATORY ANALYZED									
Lab pH	NELAP	0	1.00	H	**7.62**		1	05/07/2024 13:01	R346852
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**1.32**	mg/L	1	05/10/2024 11:43	R347102
SW-846 9251 (TOTAL)									
Chloride	NELAP	5	40		**202**	mg/L	10	05/07/2024 19:42	R346935
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0450	0.100	B	**< 0.100**	mg/L	500	05/14/2024 4:45	222636
Arsenic	NELAP	0.0400	0.100		**2.58**	mg/L	500	05/14/2024 4:45	222636
Barium	NELAP	0.0350	0.0500		**1.60**	mg/L	250	05/14/2024 4:51	222636
Beryllium	NELAP	0.0125	0.0500		**0.0911**	mg/L	250	05/14/2024 4:51	222636
Boron	NELAP	0.925	2.50		**28.9**	mg/L	500	05/14/2024 15:30	222636
Cadmium	*	0.0150	0.100		**0.296**	mg/L	500	05/14/2024 4:45	222636
Chromium	NELAP	0.0750	0.150		**1.81**	mg/L	500	05/14/2024 4:45	222636
Cobalt	NELAP	0.0115	0.100		**0.296**	mg/L	500	05/14/2024 4:45	222636
Lead	NELAP	0.0300	0.0500		**2.78**	mg/L	250	05/14/2024 4:51	222636
Lithium	*	0.145	0.300		**0.613**	mg/L	500	05/14/2024 15:30	222636
Molybdenum	NELAP	0.0600	0.150		**0.282**	mg/L	500	05/14/2024 4:45	222636
Selenium	NELAP	0.0600	0.100		**0.205**	mg/L	500	05/14/2024 4:45	222636
Thallium	NELAP	0.0475	0.100		**< 0.100**	mg/L	250	05/14/2024 4:51	222636

Sample result for Sb exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.

LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.

SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		**0.00559**	mg/L	1	05/15/2024 15:55	222725
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	06/13/2024 0:00	R348957
Radium-228	*	0	0		**See Attached**	pci/L	1	06/13/2024 0:00	R348957

Receiving Check List

Teklab, Inc. Environmental Laboratory

http://www.teklabinc.com/

Client: City Water, Light & Power
Client Project: CWLP Borings

Work Order: 24050429
Report Date: 18-Jun-24

Carrier: Paul Reeves

Received By: NR

Completed by: Amber Dilallo
On: 06-May-24

Reviewed by: Ellie Hopkins
On: 06-May-24

Pages to follow: Chain of custody 1 Extra pages included 15

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	3.5		
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐			
Chain of custody present?	Yes ☑	No ☐					
Chain of custody signed when relinquished and received?	Yes ☑	No ☐					
Chain of custody agrees with sample labels?	Yes ☑	No ☐					
Samples in proper container/bottle?	Yes ☑	No ☐					
Sample containers intact?	Yes ☑	No ☐					
Sufficient sample volume for indicated test?	Yes ☑	No ☐					
All samples received within holding time?	Yes ☐	No ☑					
Reported field parameters measured:	Field ☐	Lab ☑	NA ☐				

Sample analyses to be measured in the field and/or within 15 minutes of collection were analyzed in the lab as soon as practicable. These analyses include Chlorine (demand, free and/or residual), Carbon Dioxide, Dissolved Oxygen, Ferrous Iron, pH, and Sulfite.

Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Any No responses must be detailed below or on the COC.

Sample was preserved with Nitric Acid (97606) upon arrival at the laboratory. - amberdilallo - 5/6/2024 1:07:35 PM

pH strip #96651. - amberdilallo - 5/6/2024 1:07:37 PM

Print PDF

CHAIN OF CUSTODY

Pg __ of __ Workorder # 24050429

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City, Water, Light & Power
Address: 3100 Stevenson Dr.
City/State/Zip: Springfield, IL 62712
Contact: Colleen Grey Phone: 217-787-2334
Email: cgrey@andrews-eng.com Fax:

Samples on: [X] ICE [ ] BLUE ICE [ ] NO ICE 3.5 °C LG#7
Preserved in: [X] LAB [ ] FIELD FOR LAB USE ONLY
LAB NOTES: Added HNO3 (971 lot) pH ✓ 9/16/24 SCM

TEKLAB

Client Comments: Courier
email results to C. Grey and datamanagement@andrews-eng.com

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [ ] Yes [ ] No
Are these samples known to be hazardous? [ ] Yes [ ] No
Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: [ ] Yes [ ] No

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
CWLP Borings	S. Van Hook

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other _____ [ ] 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Rad 226 and 228	Sb, As, Ba, Be	B, Cd, Cr, Co, Pb, Se, Tl	Li, Mo	Hg	Cl, F+, SO4	pH
24050429-001	LS 20ft.	5/3/24 8:30AM	Groundwater	3	1								✓	✓	✓	✓	✓	✓	✓
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														
			Groundwater	3	1														

Relinquished By	Date/Time	Received By	Date/Time
Steve Van Hook	5/3/2024 12:30 pm	Paul M Yr	5.6.24 0820
Paul M Yr	5.6.24 1200	Mitch Reed	5/6/24 1200

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

MK 5/6

Summit Environmental Technologies, Inc.
3310 Win St.
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Website: http://www.settek.com

June 18, 2024

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:

RE: 24050429

Dear Shelly Hennessy:

Order No.: 24050786

Summit Environmental Technologies, Inc. received 1 sample(s) on 5/9/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C

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Case Narrative

WO#: **24050786**
Date: **6/18/2024**

CLIENT: TEKLAB Inc,
Project: 24050429

WorkOrder Narrative:
24050786: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, In
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Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-44&
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **24050786**
Date: **6/18/2024**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Workorder Sample Summary

WO#: **24050786**

18-Jun-24

CLIENT: TEKLAB Inc,
Project: 24050429

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24050786-001	24050429-001		5/3/2024 8:30:00 AM	5/9/2024 11:40:00 AM	Non-Potable Water

Summit Environmental Technologies, Inc.
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DATES REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,

Project: 24050429

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24050786-001A	24050429-001	5/3/2024 8:30:00 AM	Non-Potable Water	Radium-226 (EPA 903.0)		6/10/2024 3:03:24 PM	6/14/2024 11:38:39 AM
				Radium-226 (EPA 903.0)		5/29/2024 12:23:00 PM	6/5/2024 10:01:00 AM
				Radium-228 (EPA 904.0)		6/10/2024 3:03:24 PM	6/13/2024 2:27:54 PM
				Radium-228 (EPA 904.0)		5/29/2024 12:23:00 PM	6/4/2024 2:54:00 PM

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
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Analytical Report

(consolidated)

WO#: **24050786**

Date Reported: **6/18/2024**

CLIENT: TEKLAB Inc,

Collection Date: 5/3/2024 8:30:00 AM

Project: 24050429

Lab ID: 24050786-001

Matrix: NON-POTABLE WATER

Client Sample ID: 24050429-001

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					**E903.0**	**E903-904**	Analyst: **SMZ**
Radium-226	12.3	5.00	*	pCi/L	± 1.15	1	6/14/2024 11:38:39 AM
Yield	1.00					1	6/14/2024 11:38:39 AM
RADIUM-228 (EPA 904.0)					**E904.0**	**E903-904**	Analyst: **SMZ**
Radium-228	5.44	5.00	*	pCi/L	± 3.56	1	6/13/2024 2:27:54 PM
Yield	0.580					1	6/13/2024 2:27:54 PM

Qualifiers:

H	Holding times for preparation or analysis exceeded
ND	Not Detected
R	RPD outside accepted recovery limits
W	Sample container temperature is out of limit as specified at testcode
M	Manual Integration used to determine area response
PL	Permit Limit
RL	Reporting Detection Limit

Original

Summit Environmental Technologies, Inc.
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QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **MB-75975**	SampType: **MBLK**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187502**
Client ID: **PBW**	Batch ID: **75975**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/13/2024**	SeqNo: **5081626**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: **LCS-75975**	SampType: **LCS**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187502**
Client ID: **LCSW**	Batch ID: **75975**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/13/2024**	SeqNo: **5081627**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.51	1.00	5.000	0	70.2	50	130				
Yield	1.00			0	0						

Sample ID: **LCSD-75975**	SampType: **LCSD**	TestCode: **Radium-228_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187502**
Client ID: **LCSS02**	Batch ID: **75975**	TestNo: **E904.0**	**E903-904**	Analysis Date: **6/13/2024**	SeqNo: **5081628**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.55	1.00	5.000	0	71.0	50	130	3.510	1.13	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **RLC-75975** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/10/2024** RunNo: **187502**
Client ID: **BatchQC** Batch ID: **75975** TestNo: **E904.0** **E903-904** Analysis Date: **6/13/2024** SeqNo: **5081630**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.97	1.00	1.000	0	197	50	150				S

Sample ID: **RLCD-75975** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/10/2024** RunNo: **187502**
Client ID: **BatchQC** Batch ID: **75975** TestNo: **E904.0** **E903-904** Analysis Date: **6/13/2024** SeqNo: **5081631**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	0	50	150				S

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **24060255-001ADUP** SampType: **DUP** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **6/10/2024** RunNo: **187502**
Client ID: **BatchQC** Batch ID: **75975** TestNo: **E904.0** **E903-904** Analysis Date: **6/13/2024** SeqNo: **5081633**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, Inc.
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QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **MB-75975**	SampType: **MBLK**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **PBW**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: **LCS-75975**	SampType: **LCS**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **LCSW**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081732**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.85	1.00	5.000	0	97.0	70	130				

Sample ID: **LCSD-75975**	SampType: **LCSD**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **LCSS02**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.36	1.00	5.000	0	107	70	130	4.850	9.99	20	

Sample ID: **RLC-75975**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **BatchQC**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

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QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **RLC-75975**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **BatchQC**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.10	1.00	1.000	0	110	50	150				

Sample ID: **RLCD-75975**	SampType: **RLC**	TestCode: **Radium-226_**	Units: **pCi/L**	Prep Date: **6/10/2024**	RunNo: **187509**
Client ID: **BatchQC**	Batch ID: **75975**	TestNo: **E903.0**	**E903-904**	Analysis Date: **6/14/2024**	SeqNo: **5081736**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.07	1.00	1.000	0	107	50	150				

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **24050786**

18-Jun-24

Client: TEKLAB Inc,
Project: 24050429 **BatchID:** **75975**

Sample ID: **24060255-001ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/10/2024** RunNo: **187509**
Client ID: **BatchQC** Batch ID: **75975** TestNo: **E903.0** **E903-904** Analysis Date: **6/14/2024** SeqNo: **5081738**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Sample ID: **24060255-002ADUP** SampType: **DUP** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **6/10/2024** RunNo: **187509**
Client ID: **BatchQC** Batch ID: **75975** TestNo: **E903.0** **E903-904** Analysis Date: **6/14/2024** SeqNo: **5081740**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response	ND	Not Detected
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as specified at testcode		

Original

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

240507866

Are the samples chilled? YES ☐ NO ☑ With: ☐ Ice ☐ Blue Ice Preserved in: ☐ Lab ☐ Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

18.4-0.2= Cooler Temp: 18.2 Sampler: Client QC Level: 2

Fedex, Cooler

Project# 24050429

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 per your usual methods.
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.
Samples collected from an IL site.

Contact: Shelly Hennessy Email: shennessy@TekLabInc.com
Requested Due Date: Standard TAT Billing/PO: 36235 Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228											
							cpm				pH					
	24050429-001	5/3/24 0830	Unpres	Groundwater	✔		32.40				1.1					
			Unpres	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												
			Other	Aqueous												

*Relinquished By	Date/Time	Received By	Date/Time
Amber DeCello	5/6/24 1200		5/9/24, 1140

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050786 RcptNo: 1

Logged by:	Tegan A. Richards	5/9/2024 11:40:00 AM	Tegan Richards
Completed By:	Tegan A. Richards	5/10/2024 12:21:48 PM	Tegan Richards
Reviewed By:	Jennifer Woolf	5/10/2024 2:48:57 PM	Jennifer Woolf

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☐	No ☑	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date: Signed By:			
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Containers are preserved, CoC states unpreserved

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: TEK-IL-62234-A Work Order Number: 24050786 RcptNo: 1

Appendix F

Ecological and Flood Risk Documentation

HANSON

MEMORANDUM

Date: 4/30/2025
To: Matt Heyen, Hanson
From: Preston Marucco, Hanson
Project No.: 19E0107
Project Name: City Water, Light and Power (CWLP) Dallman FGD Waste Water Treatment
Subject: Sugar Creek Habitat Assessment
Copy to File, Others:

The Endangered Species Act (ESA) (16 U.S.C. 1531-1544) establishes protections for fish, wildlife, and plants that are listed as threatened or endangered. The law, among other things, prohibits any action that causes a "taking" of any listed species of endangered fish or wildlife. The ESA defines the term "take" as harassment, harm, pursuit, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct.

Hanson Professional Services Inc. (Hanson), at the direction of CWLP, performed a habitat assessment of Sugar Creek and adjacent riparian areas. The purpose of this assessment was to determine the presence of preferred habitat for threatened and endangered species known or expected to occur in or near the project area based on database records including the United States Fish and Wildlife Service's (USFWS's) Information for Planning and Consultation (IPaC) and the Illinois Department of Natural Resource's (IDNR's) Ecological Compliance Assessment Tool (EcoCAT).

Preliminary Habitat Assessment

On April 16, 2025, Hanson performed a preliminary habitat assessment of Sugar Creek and adjacent riparian and wetland areas to determine the presence of suitable habitat for federally- and state-listed threatened and endangered species (**see attached Location Map**). The length of Sugar Creek along the western limits of the study area was walked and photographed, and areas of potentially suitable habitat for federally- and state-listed species were documented and inventoried. Sugar Creek is a perennial stream occurring along the western limits of the study area and was determined to have an ordinary high water mark (OHWM) depth of 5.5 feet and width of 50 feet. The substrate of the creek consisted of mostly silt with some interspersed gravel and the stream displayed riffling and pooling in shallower areas. Live fish including grass carp (*Ctenopharyngodon Idella)* and shortnose gar (*Lepisosteus platostomus)* were observed in the stream. Turtles of unknown species were also observed. The stream was determined to have little canopy cover for the length of the project area with dominant tree species including American sycamore (*Platanus occidentalis)*, eastern cottonwood (*Populus deltoides),* white oak (*Quercus alba*), and American elm (*Ulmus americana*). The riparian plant community surrounding the stream was dominated by common reed (*Phragmites australis),* reed canary grass (*Phalaris arundinacea*) and Morrow's honeysuckle (*Lonicera morrowii)*. The banks of the stream ranged from shallow to steep slopes with most the bank along the length of the project area being a sheer drop off of about 6 feet from top of slope to water. Stone riprap has been placed along much of the shallower sloped bank areas to prevent erosion, which has inhibited

plant communities from growing in these areas. Several apparent wetland areas were observed along the riparian zone of Sugar Creek, but delineation of wetland boundaries was not performed.

Database Records - IPaC

The USFWS's IPaC tool was utilized to determine the potential presence of federally-listed threatened or endangered species within the project area, and species that may not occur within the project area but may be affected directly or indirectly by project activities. IPaC did not identify any critical habitats within or near the project area. **Table 1** lists species identified by IPaC as having potential to be affected by project activities and their associated listing status.

Table 1: IPaC Listings

Species	Scientific Name	Status
Indiana bat	*Myotis sodalis*	Endangered
Eastern prairie fringed orchid	*Platanthera leucophaea*	Threatened

Indiana Bat

The Indiana bat is a small, migratory bat species that forages on insects and utilizes caves and mines in the winter months to hibernate in colonies. According to information provided by the USFWS, the Indiana bat requires forested areas for foraging, roosting and reproduction in the summer months. Reproductive females roost in forested areas utilizing exfoliating bark of dead or dying trees that exhibit large slabs of peeling bark (i.e., oaks, ash, hickory). Maternity roosts typically occur in riparian zones, bottomland and floodplain habitats; and they prefer areas near running water.

Based on this information and a field assessment completed on April 16, 2025, riparian areas surrounding Sugar Creek present suitable habitat to support the Indiana bat's spring and summer roosting and maternity needs. No bats were observed during the field assessment.

Eastern Prairie Fringed Orchid

The eastern prairie fringed orchid is a perennial tuberous-rooted plant with creamy white flowers. According to information provided by the USFWS, this plant occurs in a wide variety of habitats including wet to mesic prairies and other wet or seasonally wet habitats. The plant requires full sun for optimal growth, but can also be located along the edge of, or interspersed among more densely vegetated plant communities. Early- or mid- successional sedge meadow and marsh habitats are the preferred habitat for this species because they provide reduced competition from established plants and sunlight exposure.

Based on this information and a field assessment completed on April 16, 2025, riparian and early-successional wetland areas surrounding Sugar Creek present suitable habitat to support the lifecycle of this species. No eastern prairie fringed orchids were observed during the field assessment.

Database Records – EcoCAT

The IDNR's EcoCAT tool was utilized to determine the potential presence of state-listed threatened or endangered species within the project area, and species that may not occur within the project area but may be affected directly or indirectly by project activities. EcoCAT did not identify any critical habitats within or near the project area. **Table 2** lists species identified by

EcoCAT as having potential to be affected by project activities and their associated listing status.

Table 2: EcoCAT Listings

Species	Scientific Name	Status
Kirtland's snake	*Clonophis kirtlandi*	State threatened

Kirtland's Snake

The Kirtland's snake is a snake averaging 14 to 18 inches in length with a red belly and a row of round, black spots down each of its sides. The dorsal portion of the snake is gray or brown with four rows of black blotches that may be difficult to discern. According to information provided by the IDNR, this snake is aquatic, but can often be found on land in or near wet meadows and swamps, or in areas adjacent to these habitat types. During the day the snake often utilizes rocks or hillside burrows for cover to hide. The species mates in May and females typically give birth in August or September.

Based on this information and a field assessment completed on April 16, 2025, Sugar Creek and adjacent wetland and riparian areas present suitable habitat to support the lifecycle of this species. No Kirtland's snakes were observed during the field assessment.

Summary

This summary is based on information provided by the USFWS's IPaC and IDNR's EcoCAT assessment tools and information gathered during an April 16, 2025 field assessment. Hanson has determined that suitable habitat for the federally-listed Indiana bat (endangered) and eastern prairie fringed orchid (threatened), as well as the state-listed Kirtland's snake, is present within and surrounding Sugar Creek.

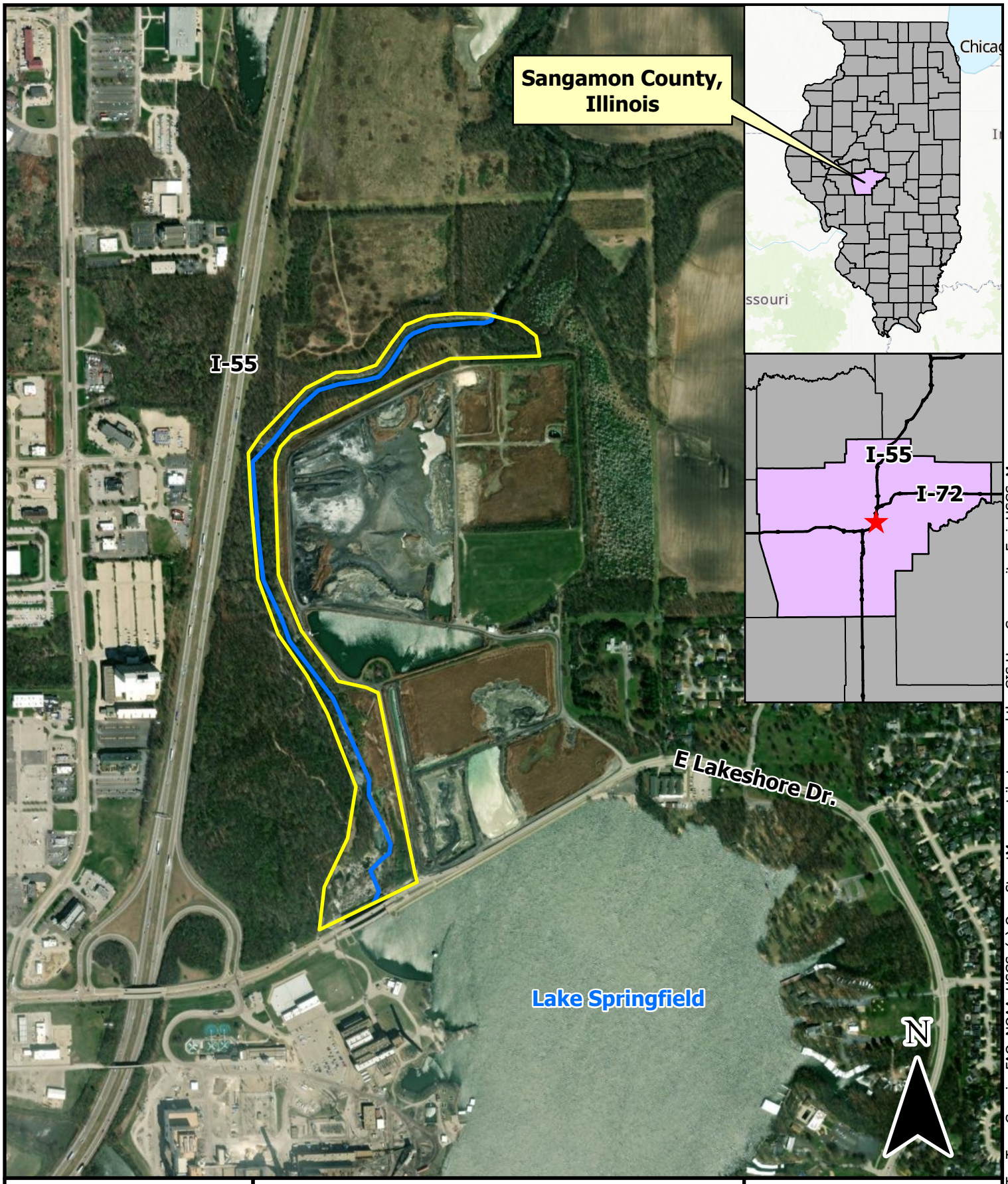


Figure 1: Location Map

Sugar Creek Habitat Assessment
Springfield, Sangamon County, Illinois

Hanson No. 19E0107 Created: 4/30/2025

★ Project Location
Sugar Creek
Study Area

Source: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Esri, USGS, Maxar

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: Hanson Professional Services Inc.
Contact: Seth Owens
Address: 1525 South Sixth Street
Springfield, IL 62703

IDNR Project Number: 2507405
Date: 12/12/2024
Alternate Number: 24E0022_00, 2201776

Project: NPDES Permit Renewal
Address: 3100 Adlai Stevenson Dr, SPRINGFIELD

Description: Permit update

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Kirtland's Snake *(Clonophis kirtlandi)*

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Sangamon

Township, Range, Section:
15N, 5W, 12



IL Department of Natural Resources Contact
Adam Rawe
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
IL Environmental Protection Agency
Permit Section, Div. of Water Pollution Control
1021 North Grand Ave. E. , PO box 19278
SPRINGFIELD, Illinois 62794

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Sangamon County, Illinois



Local office

Illinois-Iowa Ecological Services Field Office

(309) 757-5800
(309) 757-5807

Illinois & Iowa Ecological Services Field Office
1511 47th Ave

Moline, IL 61265-7022

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NOT FOR CONSULTATION

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat Myotis sodalis Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered

Birds

NAME	STATUS
Whooping Crane Grus americana No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/758	EXPN

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Western Regal Fritillary Argynnis idalia occidentalis Wherever found No critical habitat has been designated for this species.	Proposed Threatened

Flowering Plants

NAME	STATUS
Eastern Prairie Fringed Orchid Platanthera leucophaea Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/601	Threatened

NOT FOR CONSULTATION

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

NOT FOR CONSULTATION

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31

NOT FOR CONSULTATION

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see

below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

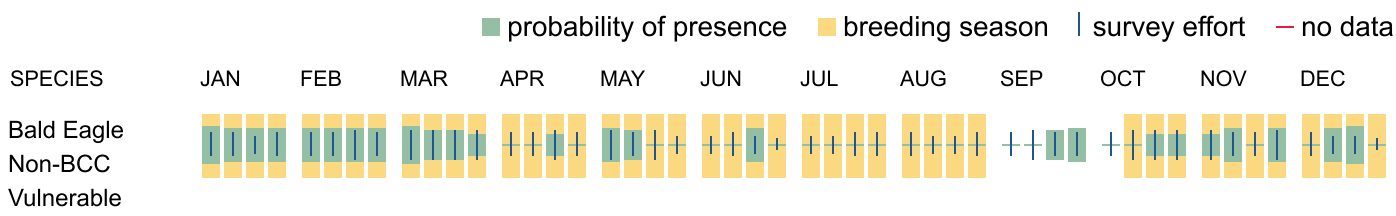
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



NOT FOR CONSULTATION

Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report
On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

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Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

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NAME	BREEDING SEASON
American Golden-plover Pluvialis dominica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Cerulean Warbler Setophaga cerulea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 21 to Jul 20
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25

Grasshopper Sparrow Ammodramus savannarum perpallidus — Breeds Jun 1 to Aug 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8329

Henslow's Sparrow Centronyx henslowii — Breeds May 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3941

Kentucky Warbler Geothlypis formosa — Breeds Apr 20 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Pectoral Sandpiper Calidris melanotos — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prairie Loggerhead Shrike Lanius ludovicianus excubitorides — Breeds Feb 1 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8833

Prothonotary Warbler Protonotaria citrea — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-headed Woodpecker Melanerpes erythrocephalus — Breeds May 10 to Sep 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Ruddy Turnstone Arenaria interpres morinella — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

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Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Semipalmated Sandpiper Calidris pusilla This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Short-billed Dowitcher Limnodromus griseus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▬)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the

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maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

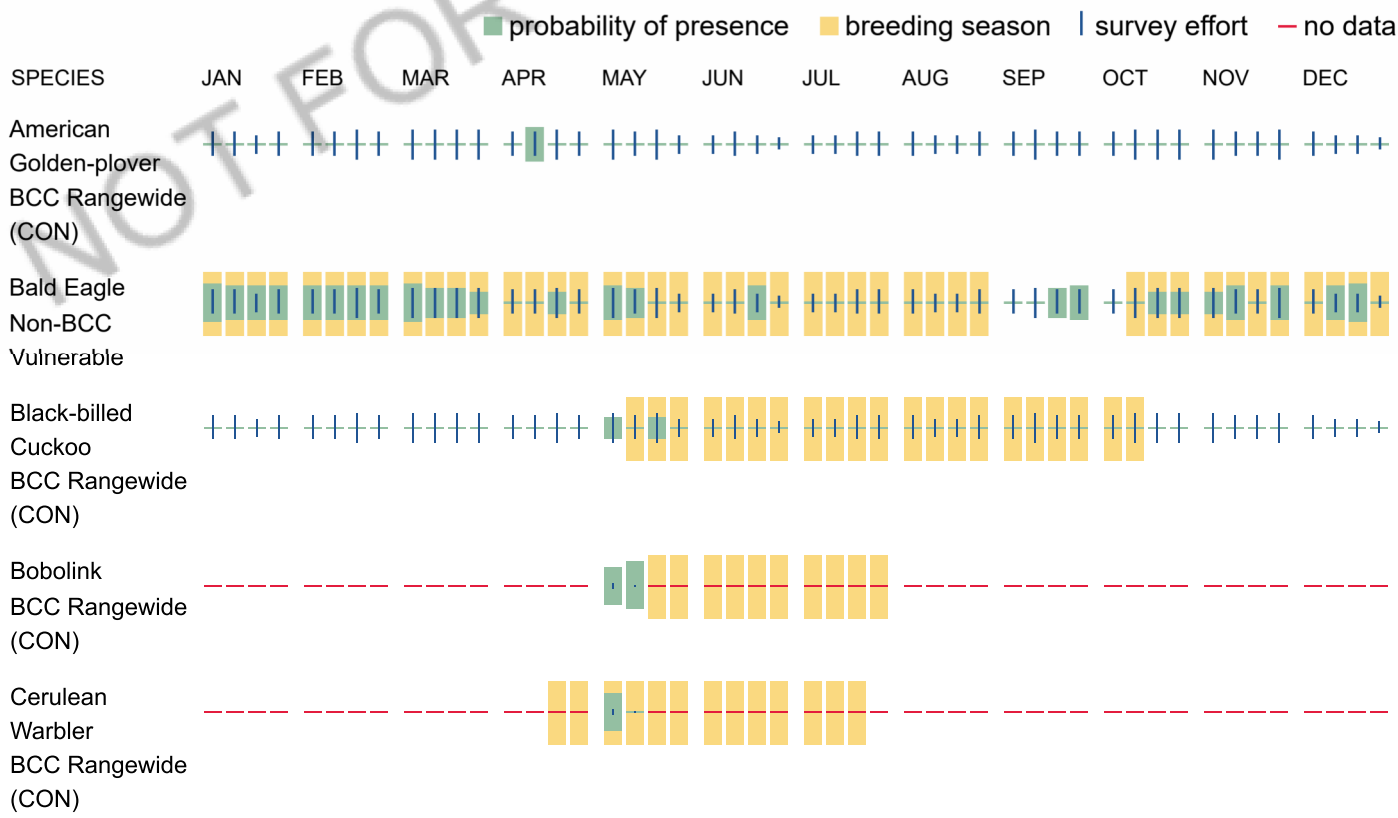
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

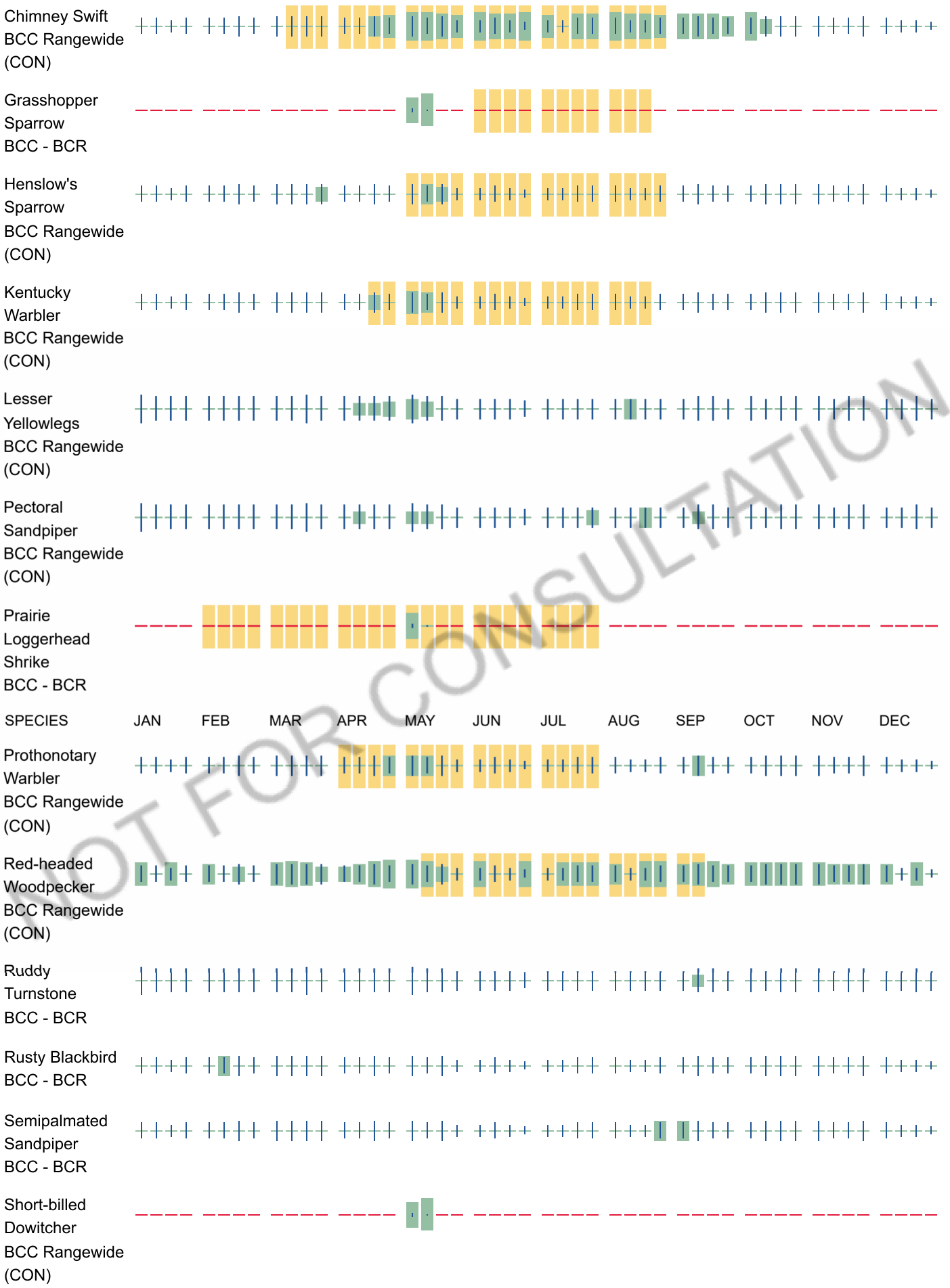
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

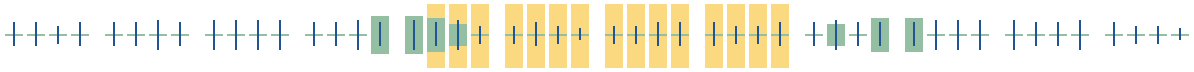
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Wood Thrush
BCC Rangewide
(CON)



Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle (Bald and Golden Eagle Protection Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

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Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Bald and Golden Eagle Protection Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ “Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds”.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then

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the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

- PEM1K
- PEM1Cx

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A

FRESHWATER POND

- PUBK

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PUBKx
PUSK

LAKE
L1UBK
L2USK

RIVERINE
R2UBH
R4SBC
R5UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in

activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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Table 4.1. Retardance Classification of Vegetal Covers

Retardance Class	Cover[1]	Condition
A	Weeping Love Grass	Excellent stand, tall, average 760 mm (30 in)
	Yellow Bluestem Ischaemum	Excellent stand, tall, average 910 mm (36 in)
B	Kudzu	Very dense growth, uncut
	Bermuda Grass	Good stand, tall, average 300 mm (12 in)
	Native Grass Mixture (little bluestem, bluestem, blue gamma, and other long and short midwest grasses)	Good stand, unmowed
	Weeping lovegrass	Good stand, tall, average 610 mm (24 in)
	Lespedeza sericea	Good stand, not woody, tall, average 480 mm (19 in)
	Alfalfa	Good stand, uncut, average 280 mm (11 in)
	Weeping lovegrass	Good stand, unmowed, average 330 mm (13 in)
	Kudzu	Dense growth, uncut
	Blue Gamma	Good stand, uncut, average 280 mm (11 in)
C	Crabgrass	Fair stand, uncut 250 to 1200 mm (10 to 48 in)
	Bermuda grass	Good stand, mowed, average 150 mm (6 in)
	Common Lespedeza	Good stand, uncut, average 280 mm (11 in)
	Grass-Legume mixture--summer (orchard grass, redtop, Italian ryegrass, and common lespedeza)	Good stand, uncut, 150 to 200 mm (6 to 8 in)
	Centipede grass	Very dense cover, average 150 mm (6 in)
	Kentucky Bluegrass	Good stand, headed, 150 to 300 mm (6 to 12 in)
D	Bermuda Grass	Good stand, cut to 60 mm (2.5 in) height
	Common Lespedeza	Excellent stand, uncut, average 110 mm (4.5 in)
	Buffalo Grass	Good stand, uncut, 80 to 150 mm (3 to 6 in)
	Grass-Legume mixture—fall, spring (orchard grass, redtop, Italian ryegrass, and common lespedeza)	Good stand, uncut, 100 to 130 mm (4 to 5 in)
	Lespedeza sericea	After cutting to 50 mm (2 in) height. Very good stand before cutting.
E	Bermuda Grass	Good stand, cut to height, 40 mm (1.5 in)
	Bermuda Grass	Burned stubble

[1] Covers classified have been tested in experimental channels. Covers were green and generally uniform.

4.1 GRASS LINING PROPERTIES

The density, stiffness, and height of grass stems are the main biomechanical properties of grass that relate to flow resistance and erosion control. The stiffness property (product of elasticity and moment of inertia) of grass is similar for a wide range of species (Kouwen, 1988) and is a basic property of grass linings.

Density is the number of grass stems in a given area, i.e., stems per m^2 (ft^2). A good grass lining will have about 2,000 to 4,000 stems/m^2 (200 to 400 stems/ft^2). A poor cover will have about one-third of that density and an excellent cover about five-thirds (USDA, 1987, Table 3.1). While grass density can be determined by physically counting stems, an easier direct method of estimating the density-stiffness property is provided in Appendix E of this manual.

Table 2. Permissible Shear and Velocity for Selected Lining Materials[1]

Boundary Category	Boundary Type	Permissible Shear Stress (lb/sq ft)	Permissible Velocity (ft/sec)	Citation(s)
Soils	Fine colloidal sand	0.02 - 0.03	1.5	A
	Sandy loam (noncolloidal)	0.03 - 0.04	1.75	A
	Alluvial silt (noncolloidal)	0.045 - 0.05	2	A
	Silty loam (noncolloidal)	0.045 - 0.05	1.75 – 2.25	A
	Firm loam	0.075	2.5	A
	Fine gravels	0.075	2.5	A
	Stiff clay	0.26	3 – 4.5	A, F
	Alluvial silt (colloidal)	0.26	3.75	A
	Graded loam to cobbles	0.38	3.75	A
	Graded silts to cobbles	0.43	4	A
	Shales and hardpan	0.67	6	A
Gravel/Cobble	1-in.	0.33	2.5 – 5	A
	2-in.	0.67	3 – 6	A
	6-in.	2.0	4 – 7.5	A
	12-in.	4.0	5.5 – 12	A
Vegetation	Class A turf	3.7	6 – 8	E, N
	Class B turf	2.1	4 - 7	E, N
	Class C turf	1.0	3.5	E, N
	Long native grasses	1.2 – 1.7	4 – 6	G, H, L, N
	Short native and bunch grass	0.7 - 0.95	3 – 4	G, H, L, N
	Reed plantings	0.1-0.6	N/A	E, N
	Hardwood tree plantings	0.41-2.5	N/A	E, N
Temporary Degradable RECPs	Jute net	0.45	1 – 2.5	E, H, M
	Straw with net	1.5 – 1.65	1 – 3	E, H, M
	Coconut fiber with net	2.25	3 – 4	E, M
	Fiberglass roving	2.00	2.5 – 7	E, H, M
Non-Degradable RECPs	Unvegetated	3.00	5 – 7	E, G, M
	Partially established	4.0-6.0	7.5 – 15	E, G, M
	Fully vegetated	8.00	8 – 21	F, L, M
Riprap	6 – in. d_{50}	2.5	5 – 10	H
	9 – in. d_{50}	3.8	7 – 11	H
	12 – in. d_{50}	5.1	10 – 13	H
	18 – in. d_{50}	7.6	12 – 16	H
	24 – in. d_{50}	10.1	14 – 18	E
Soil Bioengineering	Wattles	0.2 – 1.0	3	C, I, J, N
	Reed fascine	0.6-1.25	5	E
	Coir roll	3 - 5	8	E, M, N
	Vegetated coir mat	4 - 8	9.5	E, M, N
	Live brush mattress (initial)	0.4 – 4.1	4	B, E, I
	Live brush mattress (grown)	3.90-8.2	12	B, C, E, I, N
	Brush layering (initial/grown)	0.4 – 6.25	12	E, I, N
	Live fascine	1.25-3.10	6 – 8	C, E, I, J
	Live willow stakes	2.10-3.10	3 – 10	E, N, O
Hard Surfacing	Gabions	10	14 – 19	D
	Concrete	12.5	>18	H

[1] Ranges of values generally reflect multiple sources of data or different testing conditions.

A. Chang, H.H. (1988).
B. Florineth. (1982)
C. Gerstgraser, C. (1998).
D. Goff, K. (1999).
E. Gray, D.H., and Sotir, R.B. (1996).
F. Julien, P.Y. (1995).
G. Kouwen, N.; Li, R. M.; and Simons, D.B., (1980).
H. Norman, J. N. (1975).
I. Schiechtl, H. M. and R. Stern. (1996).
J. Schoklitsch, A. (1937).
K. Sprague, C.J. (1999).
L. Temple, D.M. (1980).
M. TXDOT (1999)
N. Data from Author (2001)
O. USACE (1997).

Table 3 - Summary of Discharges

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
Sugar Creek					
At Spaulding Dam	265	*	*	27,800	*
At Chatham Road (Glasser Bridge)	90.9	3,510	5,140	5,710	8,170
At West Glenarm Road	60.7	2,740	4,100	4,470	6,470
Town Branch					
At mouth	4.6	1,300	1,600	1,700	2,200
Unnamed Tributary to Lick Creek					
At Center Street	7.91	756	903	1,034	1,180

* Data not available

Table 4 - Summary of Stillwater Elevations

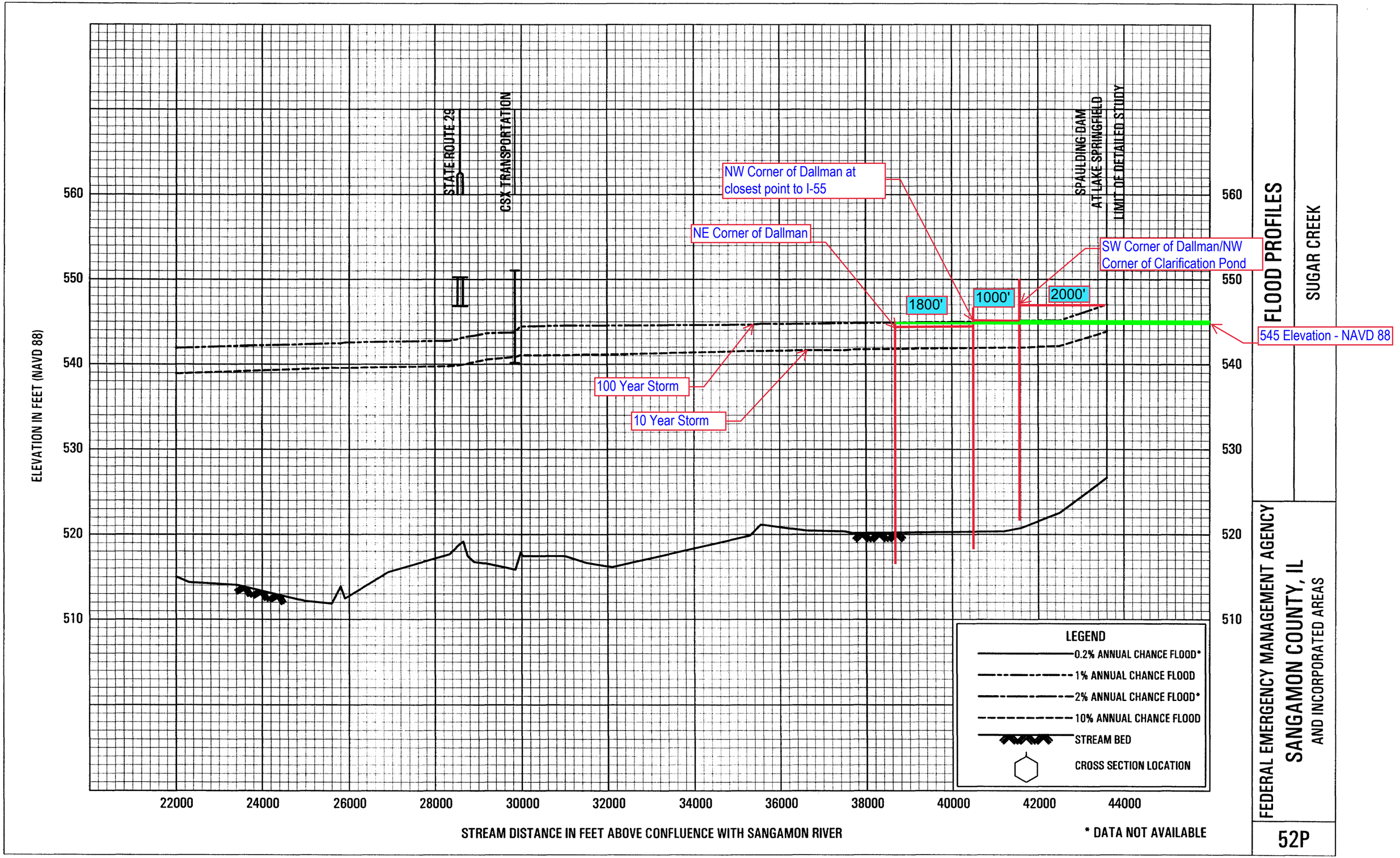
Flooding Source and Location	Elevation (feet NAVD88) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2 Percent Annual-Chance
City of Springfield				
Lake Springfield	***	***	561.1	***

*** Data not available

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Users should be aware that flood elevations shown on the FIRM represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or the Floodway Data Tables in the FIS. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS in conjunction with the data shown on the FIRM.

Cross sections used in the hydraulic analyses were interpolated from field surveys and from USGS topographic maps. The remaining cross sections, including all



FLOOD PROFILES

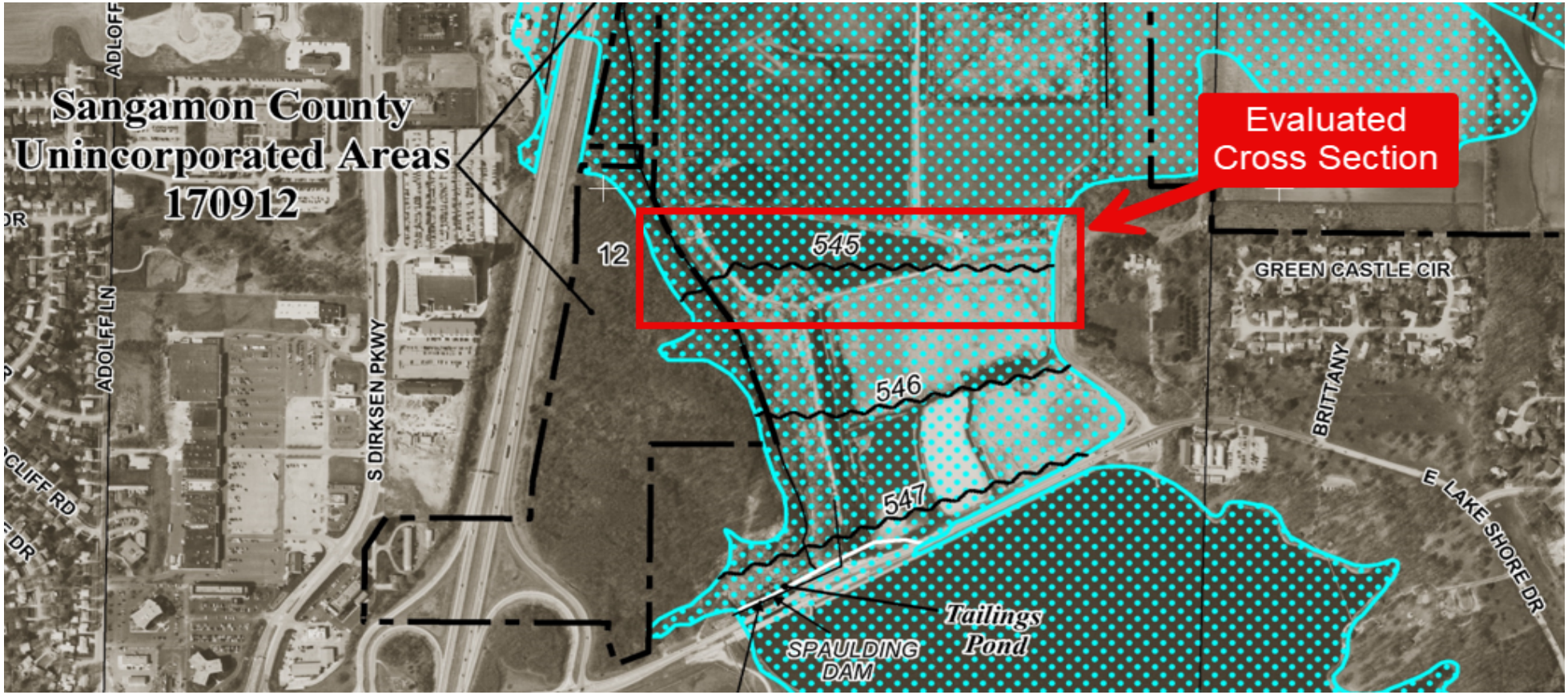
SUGAR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

SANGAMON COUNTY, IL

AND INCORPORATED AREAS

52P


Sangamon County
Unincorporated Areas
170912
Evaluated
Cross Section
545
546
547
12
ADLOFF
ADOLFF LN
S DIRKSEN PKWY
GREEN CASTLE CIR
BRITTANY
E LAKE SHORE DR
Tailings
Pond
SPAULDING
DAM

Regional Planning Commission in 1961 and 1965 (Reference 11, 12).

The authority and acknowledgments for the city of Auburn, and villages of Loami, Mechanicsburg, Spaulding, and Williamsville are not included because there were no previously printed FIS for those communities.

May 3, 2004
Countywide FIS

For the 2004 Sangamon County FIS, the updated hydrologic and hydraulic analyses for the detailed study reaches of Spring Creek, Black Branch, Jacksonville Branch, Polecat Creek, and Fox Creek were prepared by the U.S. Army Corps of Engineers (USACE), Rock Island District, for FEMA. This work was completed in July 2000. Also, hydrologic and hydraulic analyses were prepared by Greene & Bradford, Inc., for Unnamed Tributary to Lick Creek for the village of Loami. This work was completed in August 1995.

August 2, 2007
Countywide FIS

No new hydrologic or hydraulic studies were conducted. However, existing data for Lake Springfield has been incorporated. The 1-percent-annual-chance flood elevation was reported in the USACE, Chicago District report, "Inspection Report for the National Dam Safety Program for Spaulding Dam, Lake Springfield, Sangamon County, Illinois" (Reference 19).

This revision to the previously effective countywide FIS, dated May 3, 2004 (Reference 20, 21), was performed under the Cooperating Technical Partners (CTP) Partnership Agreement (No. EMC-2004-GR-0214 and No. EMC-2005-GR-7026) between the Illinois Department of Natural Resources (hereafter referred to as IDNR) and the Federal Emergency Management Agency (FEMA), per the Mapping Activity Statement (MAS) No. IDNR04-2 and IDNR05-19.

Planimetric base map information was derived from USGS digital orthophoto quarter quadrangles at a one-half-meter ground resolution (Reference 22). USGS 7.5 Minute Series Topographic Maps at a scale of 1:24,000 were also used in the digitization process (Reference 23).

The coordinate system used for the production of the digital FIRMs is Universal Transverse Mercator (UTM), North American Datum of 1983 (NAD 83), Geodetic Reference System 1980 (GRS 80) spheroid.

17. Federal Emergency Management Agency, *Flood Insurance Study, Village of Sherman, Sangamon County, Illinois*. May 16, 1983: Washington, D.C.

18. Federal Emergency Management Agency, *Flood Insurance Study, Village of Thayer, Sangamon County, Illinois*. November 3, 1981: Washington, D.C.

19. U.S. Army Corps of Engineers - Chicago District, *Inspection Report for the National Dam Safety Program for Spaulding Dam, Lake Springfield, Sangamon County, Illinois*. August 1980.

20. Federal Emergency Management Agency, *Flood Insurance Study, Sangamon County, Illinois and Incorporated Areas*. May 3, 2004: Washington, D.C.

21. *Flood Insurance Rate Map: Sangamon County, Illinois and Incorporated Areas*. May 2004, Federal Emergency Management Agency. Washington, D.C. 1 map on 41 sheets.

22. Surdex Corporation and Science Applications International. *USGS Digital Orthophoto Quarter-Quadrangles*. 2005, U.S. Geological Survey. Sioux Falls, SD.

23. Illinois State Geological Survey. *Statewide ArcSDE Raster Mosaic of USGS DRGs*. 2003, Illinois State Geological Survey. Champaign, IL.

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25. U.S. Census Bureau. *State and County QuickFacts - Sangamon County, Illinois*. 2004-2005 January 12, 2006 [cited May 5, 2006]; Available from: http://www.quickfacts.census.gov.

26. Hornickel, James K. and James F. Steinkamp, *Soil survey of Sangamon County, Illinois*. 2004: U.S. Dept. of Agriculture, Natural Resources Conservation Service.

27. U.S. Department of Agriculture-Soil Conservation Service in cooperation with Illinois Agricultural Experiment Station, *Soil Survey of Sangamon County, Illinois*. May 1980.

28. U.S. Department of the Interior - Geological Society, *Water Resources Data Illinois: Water Year 2005 (Includes historical data)*, J.K. LaTour, E.A. Weldon, D.H. Dupre, and T.M. Halfar, Editors. 2005.

29. Illinois Department of natural Resources, *River Stages in Illinois: Flood and Damage Data*. August 2004: Springfield, Illinois.

30. Carns, Jack M., *Magnitude and Frequency of Floods in Illinois*. 1973, Illinois Department of Transportation, Division of Water Resource Management.

31. Curtis, G. W., *Technique for Estimating Magnitude and Frequency of Floods in Illinois*. 1977, U.S. Geological Survey, Water-Resources Investigations Report Open-File Report 77-117.

32. Mitchell, William D., *Floods in Illinois: Magnitude and Frequency*. 1954, State of Illinois, Department of Public Works and Buildings, Division of Waterways.


Apparent Cross Section
Lakeside Pre-Construction Contours
585 ft
585 ft
E Lake Shore Dr
43

NOAA Atlas 14, Volume 2, Version 3
Location name: Springfield, Illinois, USA*
Latitude: 39.765°, Longitude: -89.5946°
Elevation: 579 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

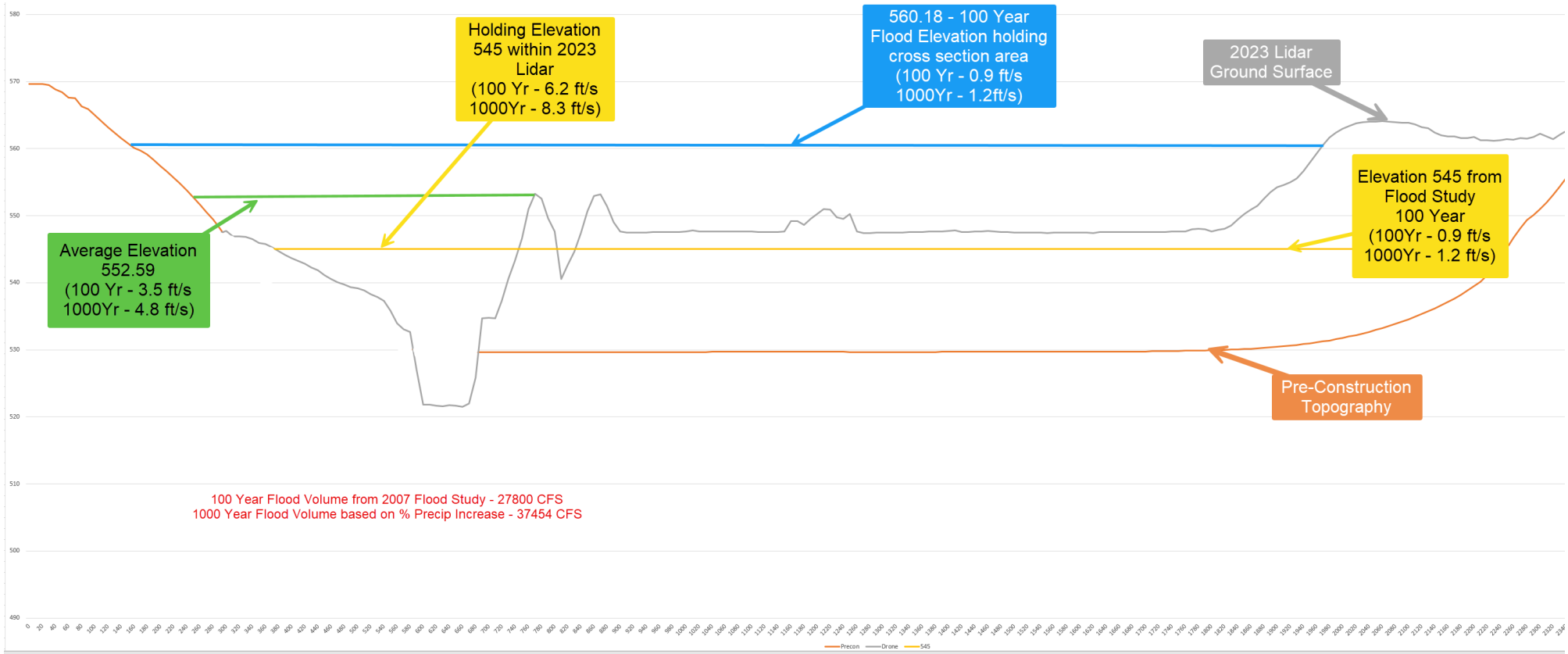
PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.398 (0.365-0.438)	0.474 (0.434-0.522)	0.566 (0.518-0.621)	0.637 (0.581-0.699)	0.726 (0.660-0.794)	0.796 (0.721-0.872)	0.863 (0.778-0.944)	0.933 (0.837-1.02)	1.03 (0.913-1.12)	1.10 (0.969-1.20)
10-min	0.619 (0.567-0.681)	0.741 (0.677-0.814)	0.879 (0.805-0.966)	0.983 (0.897-1.08)	1.11 (1.01-1.22)	1.21 (1.09-1.32)	1.30 (1.17-1.42)	1.39 (1.25-1.52)	1.51 (1.34-1.65)	1.60 (1.41-1.74)
15-min	0.759 (0.695-0.834)	0.906 (0.828-0.996)	1.08 (0.988-1.19)	1.21 (1.10-1.33)	1.37 (1.25-1.50)	1.49 (1.35-1.64)	1.61 (1.46-1.76)	1.73 (1.55-1.89)	1.88 (1.68-2.06)	1.99 (1.76-2.18)
30-min	1.00 (0.919-1.10)	1.21 (1.11-1.33)	1.48 (1.35-1.62)	1.68 (1.53-1.84)	1.94 (1.76-2.12)	2.14 (1.93-2.34)	2.33 (2.10-2.55)	2.53 (2.27-2.76)	2.79 (2.48-3.05)	2.99 (2.64-3.27)
60-min	1.23 (1.12-1.35)	1.49 (1.36-1.64)	1.86 (1.70-2.04)	2.14 (1.95-2.34)	2.51 (2.28-2.75)	2.81 (2.55-3.08)	3.12 (2.81-3.41)	3.43 (3.08-3.75)	3.86 (3.43-4.22)	4.20 (3.71-4.59)
2-hr	1.45 (1.33-1.59)	1.76 (1.61-1.94)	2.21 (2.02-2.42)	2.56 (2.33-2.80)	3.03 (2.76-3.32)	3.42 (3.10-3.73)	3.81 (3.44-4.16)	4.23 (3.79-4.61)	4.81 (4.28-5.24)	5.28 (4.66-5.76)
3-hr	1.54 (1.41-1.69)	1.87 (1.71-2.05)	2.34 (2.14-2.58)	2.72 (2.48-2.99)	3.25 (2.95-3.56)	3.68 (3.32-4.03)	4.13 (3.70-4.51)	4.61 (4.11-5.04)	5.29 (4.66-5.79)	5.85 (5.12-6.40)
6-hr	1.81 (1.66-1.98)	2.18 (2.00-2.40)	2.74 (2.51-3.00)	3.18 (2.91-3.49)	3.80 (3.46-4.15)	4.31 (3.90-4.69)	4.84 (4.35-5.27)	5.40 (4.83-5.88)	6.21 (5.49-6.75)	6.87 (6.03-7.48)
12-hr	2.11 (1.94-2.29)	2.54 (2.34-2.77)	3.16 (2.92-3.45)	3.66 (3.37-3.99)	4.35 (3.99-4.73)	4.92 (4.48-5.34)	5.50 (4.98-5.96)	6.12 (5.51-6.63)	6.99 (6.24-7.58)	7.71 (6.82-8.35)
24-hr	2.42 (2.26-2.61)	2.93 (2.73-3.16)	3.67 (3.42-3.95)	4.24 (3.94-4.56)	5.00 (4.65-5.38)	5.61 (5.20-6.03)	6.22 (5.76-6.68)	6.85 (6.33-7.36)	7.70 (7.10-8.28)	8.38 (7.71-8.98)
2-day	2.84 (2.64-3.06)	3.43 (3.20-3.70)	4.26 (3.97-4.60)	4.91 (4.57-5.28)	5.77 (5.35-6.20)	6.44 (5.97-6.92)	7.12 (6.58-7.65)	7.82 (7.21-8.40)	8.76 (8.06-9.40)	(8.72-10.2)
3-day	3.01 (2.80-3.23)	3.63 (3.39-3.90)	4.51 (4.20-4.84)	5.18 (4.83-5.56)	6.08 (5.65-6.52)	6.79 (6.30-7.28)	7.50 (6.95-8.04)	8.23 (7.61-8.82)	9.20 (8.49-9.86)	9.97 (9.18-10.7)
4-day	3.17 (2.96-3.40)	3.82 (3.58-4.10)	4.75 (4.44-5.09)	5.45 (5.09-5.84)	6.40 (5.96-6.85)	7.14 (6.64-7.63)	7.88 (7.31-8.43)	8.64 (8.00-9.24)	9.65 (8.92-10.3)	10.4 (9.64-11.2)
7-day	3.75 (3.51-4.00)	4.50 (4.22-4.81)	5.51 (5.16-5.89)	6.27 (5.86-6.70)	7.26 (6.77-7.75)	8.02 (7.47-8.56)	8.77 (8.16-9.36)	9.53 (8.85-10.2)	10.5 (9.76-11.2)	11.3 (10.5-12.1)
10-day	4.24 (3.98-4.52)	5.08 (4.77-5.43)	6.19 (5.81-6.61)	7.01 (6.56-7.48)	8.08 (7.56-8.62)	8.90 (8.31-9.50)	9.71 (9.06-10.4)	10.5 (9.80-11.2)	11.6 (10.8-12.4)	12.4 (11.5-13.3)
20-day	5.72 (5.41-6.06)	6.84 (6.46-7.26)	8.24 (7.78-8.75)	9.25 (8.73-9.81)	10.6 (9.94-11.2)	11.6 (10.9-12.2)	12.5 (11.8-13.3)	13.5 (12.6-14.3)	14.7 (13.8-15.6)	15.7 (14.7-16.7)
30-day	7.12 (6.74-7.53)	8.50 (8.05-8.99)	10.1 (9.60-10.7)	11.3 (10.7-12.0)	12.8 (12.1-13.5)	13.9 (13.1-14.7)	15.0 (14.1-15.9)	16.1 (15.1-17.0)	17.4 (16.3-18.5)	18.5 (17.3-19.6)
45-day	8.96 (8.51-9.44)	10.7 (10.1-11.2)	12.6 (12.0-13.3)	14.0 (13.3-14.7)	15.7 (14.9-16.5)	17.0 (16.1-17.9)	18.2 (17.2-19.2)	19.4 (18.3-20.5)	21.0 (19.8-22.1)	22.1 (20.8-23.3)
60-day	10.6 (10.1-11.2)	12.6 (12.0-13.3)	14.8 (14.1-15.6)	16.4 (15.5-17.2)	18.4 (17.4-19.3)	19.8 (18.7-20.8)	21.2 (20.0-22.3)	22.5 (21.3-23.7)	24.3 (22.9-25.6)	25.6 (24.1-26.9)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates


Holding Elevation 545 within 2023 Lidar (100 Yr - 6.2 ft/s 1000Yr - 8.3 ft/s)
560.18 - 100 Year Flood Elevation holding cross section area (100 Yr - 0.9 ft/s 1000Yr - 1.2ft/s)
2023 Lidar Ground Surface
Elevation 545 from Flood Study 100 Year (100Yr - 0.9 ft/s 1000Yr - 1.2 ft/s)
Average Elevation 552.59 (100 Yr - 3.5 ft/s 1000Yr - 4.8 ft/s)
Pre-Construction Topography
100 Year Flood Volume from 2007 Flood Study - 27800 CFS
1000 Year Flood Volume based on % Precip Increase - 37454 CFS
580
570
560
550
540
530
520
510
500
490
Precon
Drone
545

Appendix G

Select Closure Plan Drawings and Sections

ISSUED FOR BID - ISSUED 05-19-2026

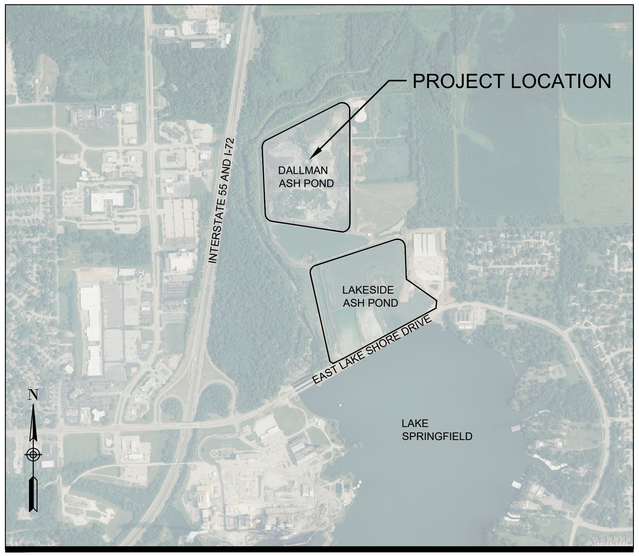
CONTRACT # UE27-03-14

CCR SURFACE IMPOUNDMENT DEWATERING WELL INSTALLATION

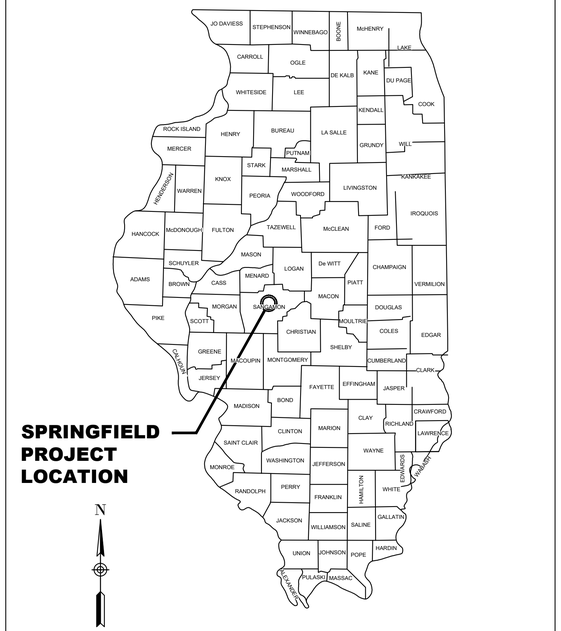
CWLP
CITY WATER, LIGHT AND POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

SHEET INDEX	
SHEET	TITLE
G001	COVER SHEET
G002	GENERAL NOTES
C100	SITE OVERVIEW
C101	DALLMAN ASH POND INTERIM GRADING PLAN
C501	PUMP STATION DETAILS
E100	ELECTRICAL LAYOUT
E101	ELECTRICAL ONELINE
E102	ELECTRICAL TYPICAL
E103	ELECTRICAL DETAILS

VICINITY MAP



LOCATION MAP



HANSON PROFESSIONAL SERVICES INC.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Telephone: 217.788.2450
Fax: 217.788.2503

LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
BARRY ROWE
062-066380

EXP. 11/30/27

5/12/2026
BARRY ROWE, P.E.
Electrical Engineer
Date

HANSON PROFESSIONAL SERVICES INC.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Telephone: 217.788.2450
Fax: 217.788.2503

DAVID B. HOOTS
062-055737
LICENSED PROFESSIONAL ENGINEER
OF
ILLINOIS

EXP. 11/30/27

5/12/2026
BRAD HOOTS, P.E.
Civil Engineer
Date

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Offices Nationwide
www.hanson-inc.com

CONTRACT # UE27-03-14

CCR SURFACE IMPOUNDMENT DEWATERING WELL INSTALLATION

CWLP ASH PONDS

MARK	DATE	DESCRIPTION		
		DES	DRN	REV

ISSUE: 04-10-2026
PROJECT NO: 25E0006
CAD FILE:
DESIGN BY: DBH
DRAWN BY: DBH
REVIEWED BY: MH

SHEET TITLE

COVER SHEET

G001

MAY 12, 2026 1:06 PM HASEN01154
I:\25JOBS\25E0006_00\CAD\SITE\SHEET\G001-DEWATERING.DWG

GENERAL NOTES:

1. "IDOT STANDARD SPECIFICATIONS", WHERE REFERENCED IN THE PLANS OR TECHNICAL SPECIFICATIONS, REFERS TO THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2022, AND THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JANUARY 1, 2026 PUBLISHED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT).

2. COORDINATES ARE SHOWN IN THE ILLINOIS STATE PLANE WEST ZONE COORDINATE SYSTEM. ELEVATIONS ARE BASED ON NAVD88.

3. FINISH GRADES SHALL BE SMOOTHLY TRANSITIONED TO ENSURE POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES.

4. ALL OPEN EXCAVATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA 29 CFR 1926, SUBPART P- "EXCAVATIONS". THE SUBCONTRACTOR SHALL DESIGNATE A QUALIFIED "COMPETENT PERSON" AS DEFINED IN OSHA SECTION 1926.650(b) PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION ACTIVITIES.

5. ALL DEWATERING OF THE INFRASTRUCTURE EXCAVATIONS SHALL BE CONTAINED WITHIN THE DALLMAN ASH POND. WATER SHALL BE PUMPED TO DITCHES FOR THE WATER TO FLOW INTO THE CLARIFICATION POND. AT NO TIME WILL WATER BE ALLOWED TO BE PUMPED OVER THE BERMS AND OUTSIDE OF THE DALLMAN ASH POND.

6. EXCAVATED CCR MATERIAL WILL BE UTILIZED FOR ALL TRENCH AND STRUCTURE BACKFILL. COMPACTION WITH AN EXCAVATOR BUCKET OR SOME OTHER NON-CONVENTIONAL COMPACTIVE EFFORT WILL BE ALLOWED.

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1525 S. 6th Street
Springfield, IL 62568
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fax: 217-788-2503
Offices Nationwide
www.hanson-inc.com

CONTRACT # UE27-03-14

CCR SURFACE IMPOUNDMENT
DEWATERING WELL INSTALLATION

CWLP ASH PONDS

MARK	DATE	DESCRIPTION		
		DES	DRN	REV

ISSUE: 04-10-2026
PROJECT NO: 25E0006
CAD FILE:
DESIGN BY: DBH
DRAWN BY: DBH
REVIEWED BY: MH

SHEET TITLE

GENERAL NOTES

G002

SHEET 2 OF 9

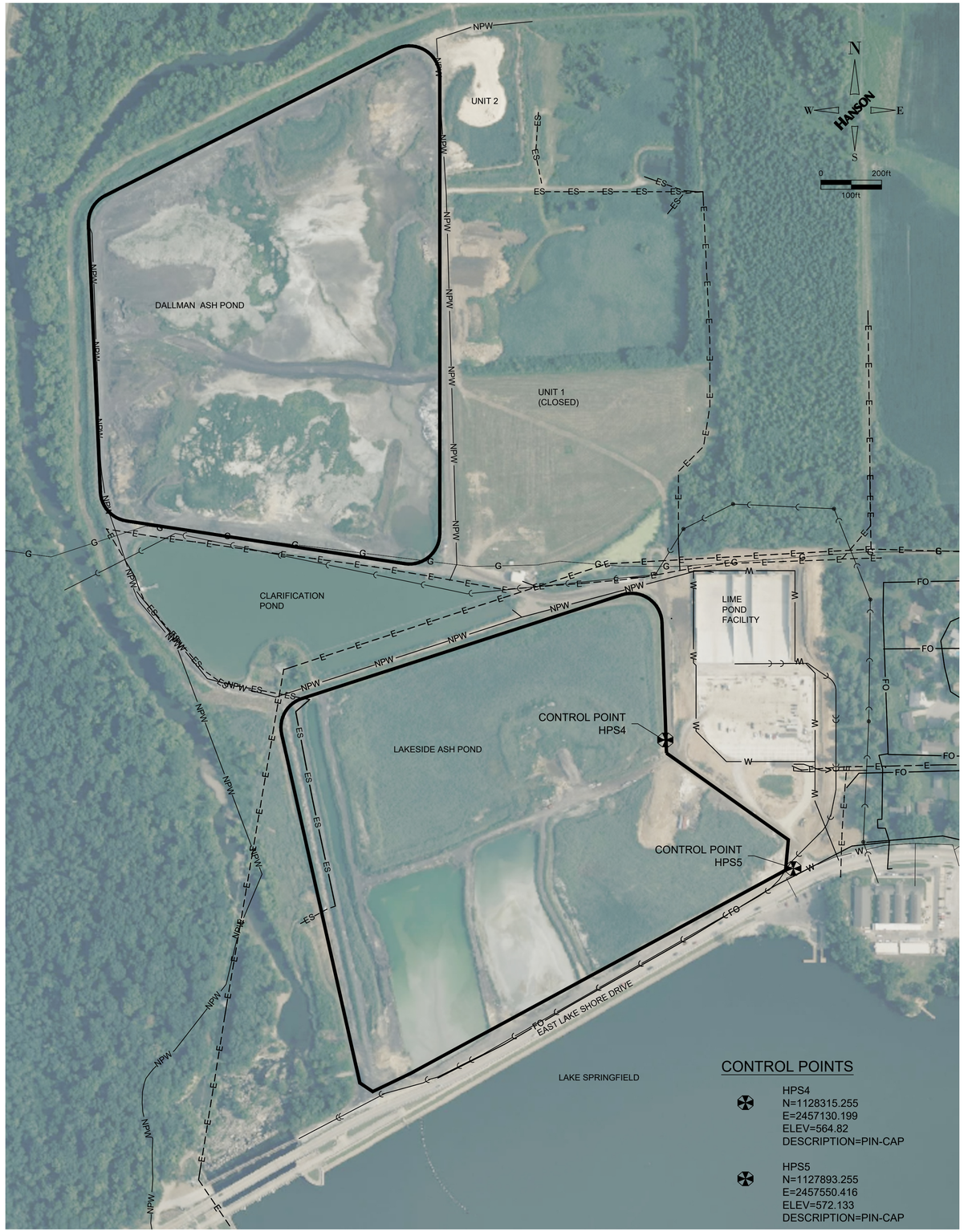
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GENERAL NOTES

1. "IDOT STANDARD SPECIFICATIONS", WHERE REFERENCED IN THE PLANS OR TECHNICAL SPECIFICATIONS, REFERS TO THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2022, PUBLISHED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT).
2. ALL SECTIONS, DETAILS, AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE STARTING WORK. IF CONDITIONS VARY FROM THOSE INDICATED ON THE DRAWINGS, OWNER SHALL BE NOTIFIED AND NO WORK SHALL BE DONE IN THE AREA WITHOUT APPROVAL.
4. SCALE FOR THE DRAWINGS IS FOR GENERAL INFORMATION ONLY. LOCATIONS AND DIMENSIONS SHALL BE TAKEN AS SHOWN AND NOT SCALED.
5. IT IS CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS PROJECT, ORDERING MATERIALS, OR BEGINNING CONSTRUCTION.
6. CONTRACTOR'S WORK ACTIVITIES SHALL BE RESTRICTED TO AREAS WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTOR'S ACTIVITIES AND VEHICLES SHALL NOT BE ALLOWED OUTSIDE OF THESE LIMITS UNLESS APPROVED BY OWNER.
7. DISTURBED EARTH SURFACES SHALL BE SEEDED PER THE PROJECT SPECIFICATIONS.
8. CONTRACTOR IS RESPONSIBLE FOR THE SITE RESTORATION.
9. TEMPORARY EROSION CONTROL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH IDOT STANDARD DRAWING 280001-07 TEMPORARY EROSION CONTROL SYSTEMS. AND ARTICLE 280 OF THE IDOT STANDARD SPECIFICATIONS.
10. ALL OPEN EXCAVATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA 29 CFR 1926, SUBPART P- "EXCAVATIONS". THE SUBCONTRACTOR SHALL DESIGNATE A QUALIFIED "COMPETENT PERSON" AS DEFINED IN OSHA SECTION 1926.650(b) PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION ACTIVITIES.

SURVEY AND LAYOUT

1. THE DESIGN PLANS INCLUDED WERE BASED UPON A HORIZONTAL COORDINATE SYSTEM BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83), ILLINOIS STATE PLANE WEST ZONE AND VERTICAL ELEVATIONS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING ANY PROPERTY MONUMENTS THAT BECOME DAMAGED OR DESTROYED DURING CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER ALIGNMENT (VERTICAL AND HORIZONTAL) AT ALL INTERFACES BETWEEN NEW AND EXISTING WORK TO ASSURE PROPER INSTALLATION AND USAGE.
4. MONITORING WELLS IDENTIFIED ON THE PLAN SHEETS SHALL BE PROTECTED FROM DAMAGE DURING THE SITE WORK, EXCEPT THOSE IDENTIFIED FOR REMOVAL.



CONTROL POINTS

HPS4
N=1128315.255
E=2457130.199
ELEV=564.82
DESCRIPTION=PIN-CAP

HPS5
N=1127893.255
E=2457550.416
ELEV=572.133
DESCRIPTION=PIN-CAP

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DALLMAN ASH POND CLOSURE

SPRINGFIELD, ILLINOIS

MARK	DATE	DESCRIPTION	DES	DRN	REV

ISSUE: 09-20-2025
PROJECT NO: 25E0006
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DRAWN BY: BR
REVIEWED BY: MH

SHEET TITLE
GENERAL NOTES AND SURVEY DATA

G002

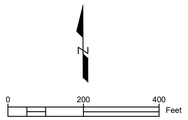
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D

C

B

A



CONSTRUCTION SEQUENCE:

STEP 1
INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.

STEP 2
GRADE THE EXISTING SURFACE OF DALLMAN ASH POND TO DRAIN TOWARD THE OUTSIDE EDGES PRIOR TO PLACING FILTER BAGS.

STEP 3
PUMP WATER FROM THE 10 NEW DEWATERING WELLS TO LOWER WATER CONTENT OF THE DALLMAN ASH POND.

STEP 4A
MOVE ENOUGH DRY LAKESIDE ASH POND CCR TO STOCK PILES ON DALLMAN ASH POND SO SLURRY OPERATIONS CAN BEGIN.

STEP 4B
SLURRY LAKESIDE ASH POND AND PUMP INTO FILTER BAGS INSTALLED ON THE SURFACE OF THE DALLMAN ASH POND.

STEP 4C
RAISE THE DEWATERING WELLS AS BAGS ARE BUILT UP AROUND THE WELLS.

STEP 5
USE DRY CCR MATERIAL OR LAKESIDE ASH POND BERM MATERIAL TO COVER THE FILTER BAGS AND GRADE TO THE ELEVATIONS SHOWN ON THE FINAL COMPLETION PLAN.

STEP 6A
COMMENCE ALTERNATE FINAL COVER INSTALLATION (CLOSURETURF) ONCE ALL MATERIAL IS TRANSFERRED FROM THE LAKESIDE ASH POND TO THE DALLMAN ASH POND. THE DEWATERING WELLS WILL BE RAISED TO THE FINAL SURFACE ELEVATION AND WILL REMAIN IN PLACE TO FACILITATE FUTURE DEWATERING OPERATIONS.

STEP 6B
CONSTRUCT LAKESIDE CHANNEL OUTFALL
GRADE THE LAKESIDE ASH POND TO DRAIN VISIBLY REMOVING ALL CCR.
APPLY FERTILIZER, SEED AND MULCH.

STEP 7
ONCE FINAL SEEDING IS ESTABLISHED, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS.



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DALLMAN ASH POND CLOSURE

SPRINGFIELD, ILLINOIS

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SHEET TITLE

CONSOLIDATION PLAN

C101

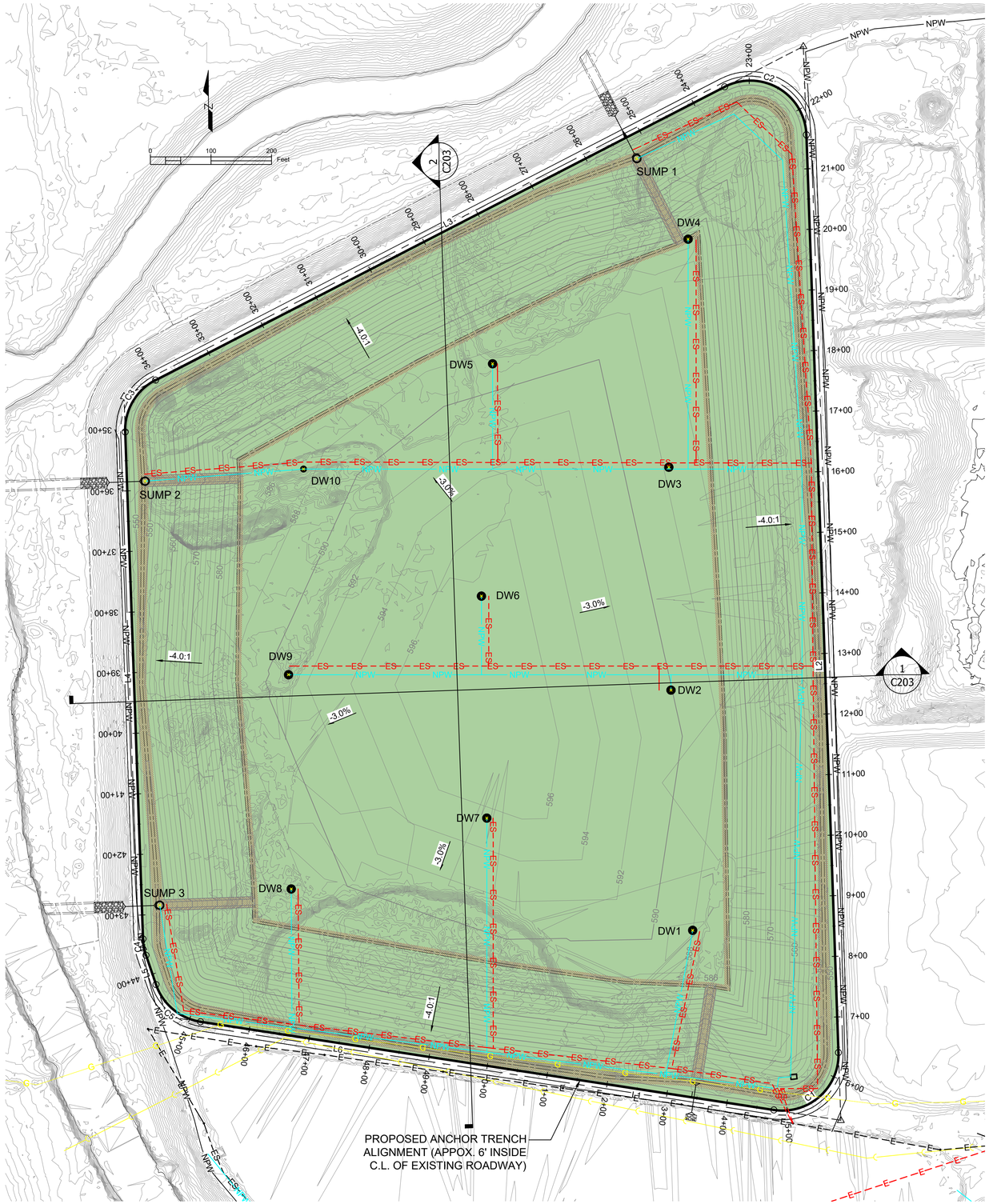
SHEET 3 OF 14

LINE TABLE: ALIGNMENTS								
LINE #	LENGTH	DIRECTION	START STA	START NORTHING	START EASTING	END STA	END NORTHING	END EASTING
L1	478.43'	S81° 15' 03.50"E	0+00.00	1128949.28	2455851.68	4+78.43	1128876.51	2456324.53
L2	1514.99'	N02° 00' 08.01"W	6+41.08	1128971.17	2456431.05	21+56.07	1130485.23	2456378.12
L3	1055.98'	S62° 44' 13.04"W	23+42.15	1130564.22	2456243.30	33+98.13	1130080.50	2455304.63
L4	836.98'	S02° 00' 08.01"E	35+02.64	1129995.04	2455254.56	43+39.62	1129158.58	2455283.80
L5	51.12'	S19° 00' 09.65"E	43+67.07	1129131.69	2455288.78	44+18.18	1129083.36	2455305.43
L6	478.43'	S81° 15' 03.50"E	45+18.68	1129022.05	2455378.82	49+97.10	1128949.28	2455851.68

CURVE TABLE: ALIGNMENTS					
CURVE #	LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	162.66'	92.50'	100°45'05"	N48° 22' 24.24"E	142.49'
C2	186.08'	92.50'	115°15'39"	N59° 37' 57.49"W	156.25'
C3	104.52'	92.50'	64°44'21"	S30° 22' 02.51"W	99.05'
C4	27.45'	92.50'	17°00'02"	S10° 30' 08.83"E	27.35'
C5	100.50'	92.50'	62°14'54"	S50° 07' 36.57"E	95.63'

NOTES:

1. SEE SHEET C201 FOR ANCHOR TRENCH AND PERIMETER DITCH PROFILES.



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DALLMAN ASH POND CLOSURE

SPRINGFIELD, ILLINOIS

MARK	DATE	DESCRIPTION		
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DALLMAN ASH POND ALIGNMENT PLAN

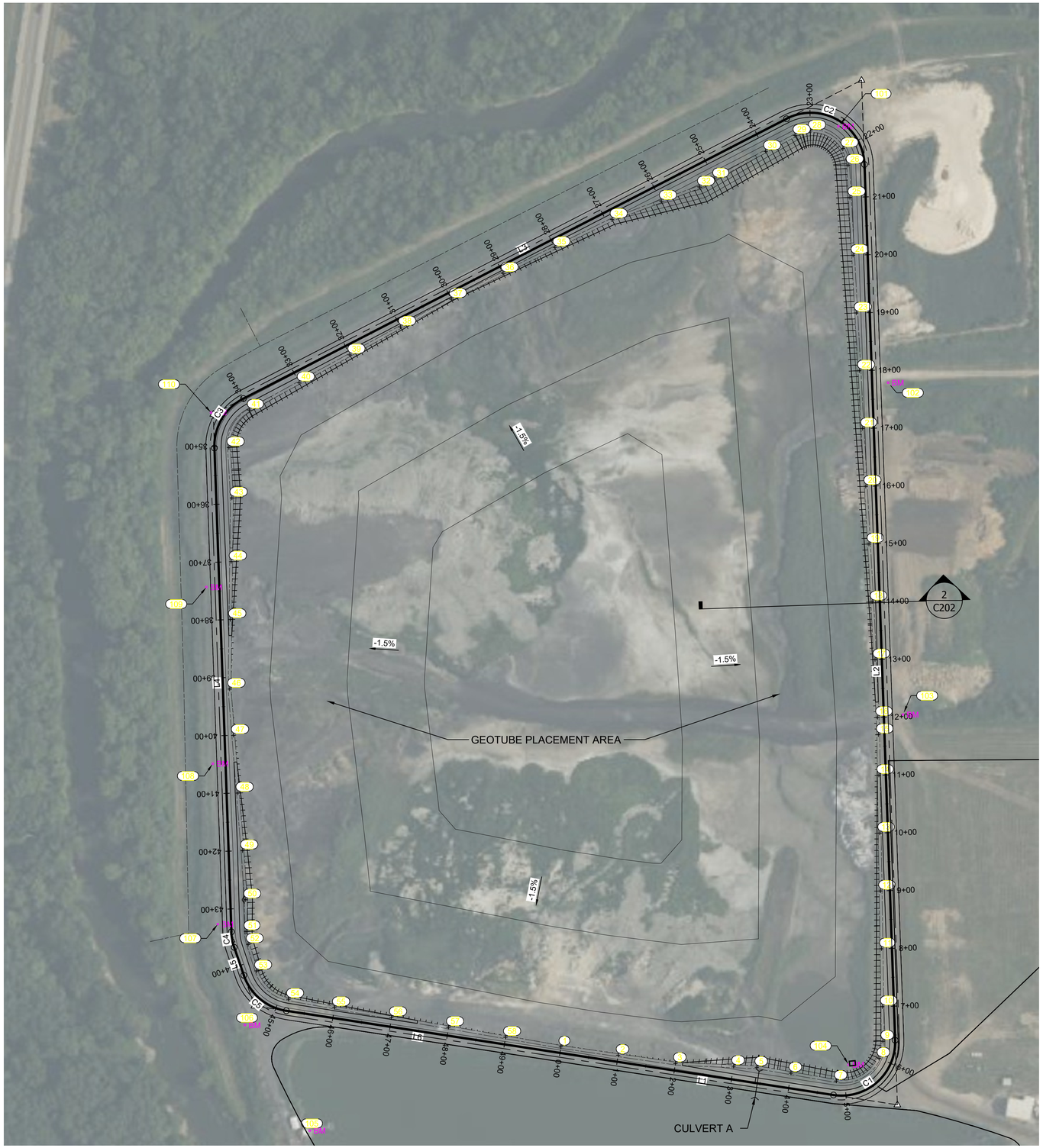
C102

SHEET 4 OF 14

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LEGEND:

- EXISTING UNDERGROUND PRIMARY ELECTRICAL
- EXISTING UNDERGROUND SECONDARY ELECTRICAL
- PROPOSED UNDERGROUND SECONDARY ELECTRICAL
- EXISTING OVERHEAD PRIMARY ELECTRICAL
- EXISTING OVERHEAD SECONDARY ELECTRICAL
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING NON-POTABLE WATER LINE
- PROPOSED NON POTABLE WATER LINE
- EXISTING SEWER LINE
- EXISTING COMMUNICATION LINE
- EXISTING POWER POLE
- PROPOSED DEWATERING WELLS
- PROPOSED INTERIM DITCH SUMP
- EXISTING MONITORING WELLS



N

0 100 200 Feet

NOTES:

1. CONTOURS REPRESENT PERIMETER DRAINAGE DITCH CONSTRUCTION AND GRADING OF EXISTING CCR TO PROMOTE POSITIVE DRAINAGE DURING DEWATERING AND FILL PLACEMENT VIA GEOTUBE.
2. SEE SHEET C102 FOR ANCHOR TRENCH ALIGNMENT AND SHEET C201 FOR PERIMETER DITCH PROFILE.

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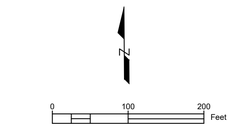
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DALLMAN ASH POND INTERIM GRADING PLAN

C103

SHEET 5 OF 14

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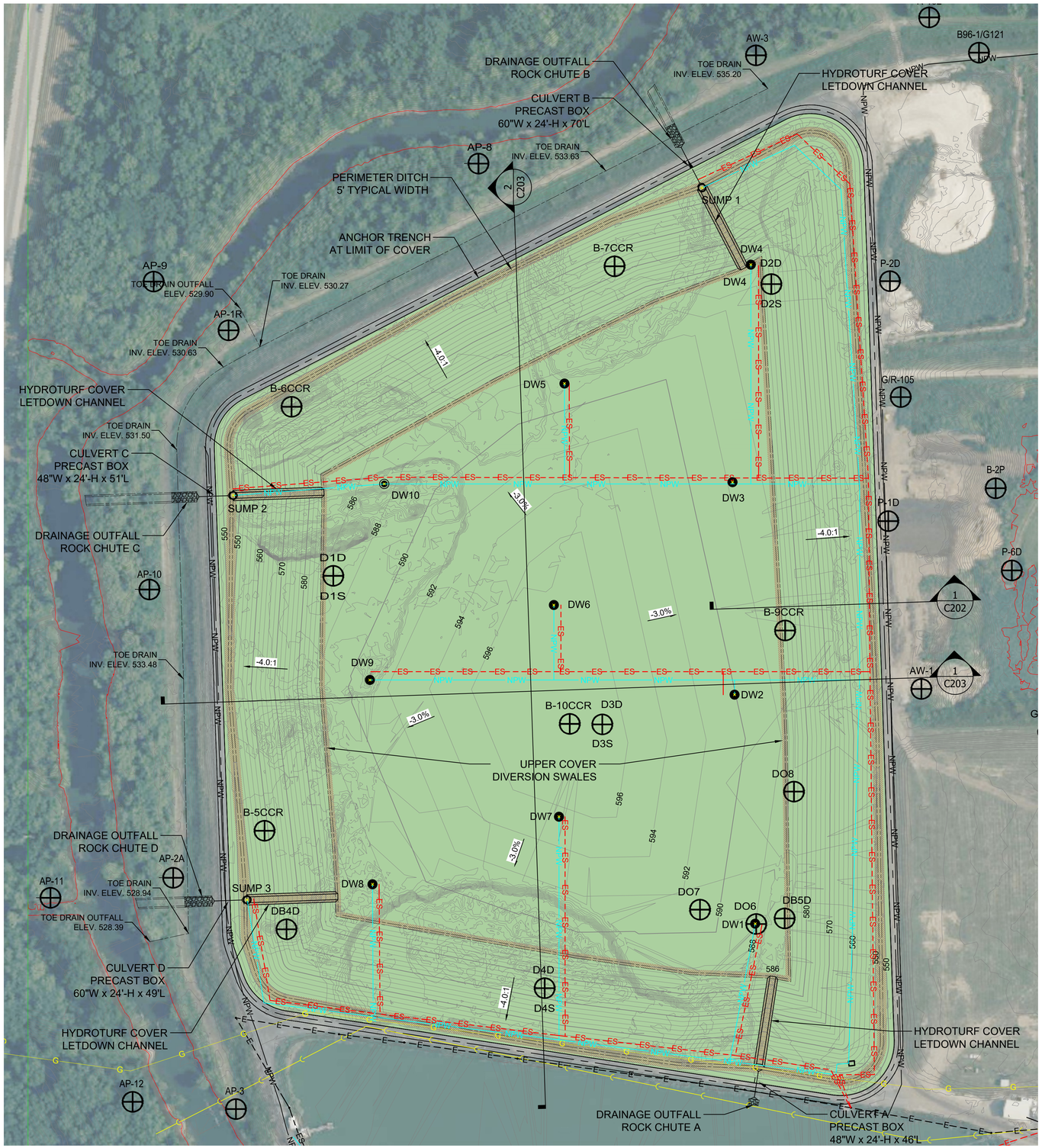
LEGEND

- CLOSURE TURF
- HYDROTURF
- PERMANENT SEEDING
- RIPRAP

NOTES:

1. SEE SHEET C102 FOR ANCHOR TRENCH ALIGNMENT AND SHEET C201 FOR PERIMETER DITCH PROFILE.

DALLMAN MONITORING WELLS		
Short ID	Northing	Easting
D1D	1,129,774.646	2,455,460.387
D2D	1,130,279.471	2,456,218.172
D3D	1,129,517.696	2,455,925.821
D4	1,129,061.184	2,455,862.181
DB4D	1,129,163.191	2,455,379.61
DB5D	1,129,181.966	2,456,241.368
DW1	1,129,174.103	2,456,191.27
DO6	1,129,172.348	2,456,192.204
DO7	1,129,197.213	2,456,094.954
DO8	1,129,401.38	2,456,257.44
B-5CCR	1,129,333.75	2,455,341.56
B-6CCR	1,130,067.17	2,455,388.17
B-7CCR	1,130,310.33	2,455,947.06
B-9CCR	1,129,680.19	2,456,242.16
B-10CCR	1,129,518.55	2,455,869.56
D1S	1,129,777.846	2,455,464.375
D2S	1,130,282.963	2,456,222.602
D3S	1,129,514.675	2,455,930.029
DB4S	1,129,157.327	2,455,380.777
DB5S	1,129,176.576	2,456,240.522



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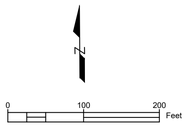
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DALLMAN ASH POND CLOSURE PLAN

C104

SHEET 6 OF 14

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LEGEND

- CLOSURE TURF
- HYDROTURF
- PERMANENT SEEDING
- RIPRAP

NOTES:

1. SEE SHEET C102 FOR ANCHOR TRENCH ALIGNMENT AND SHEET C201 FOR PERIMETER DITCH PROFILE.

LAKESIDE MONITORING WELLS		
Short ID	Northing	Easting
L1D	1,127,471.500	2,456,543.151
LB2D	1,127,826.170	2,456,727.264
L3D	1,128,216.985	2,456,765.964
L4	1,127,968.131	2,457,141.149
L5D	1,128,308.427	2,456,118.312
B-1CCR	1,127,387.376	2,456,173.675
B-2CCR	1,128,059.370	2,456,087.510
B-3CCR	1,128,336.730	2,456,638.090
B-4CCR	1,127,834.100	2,456,152.870
L1S	1,127,476.295	2,456,541.736
LB2S	1,127,821.347	2,456,728.788
L3S	1,128,212.801	2,456,770.611
L5S	1,128,304.992	2,456,121.932



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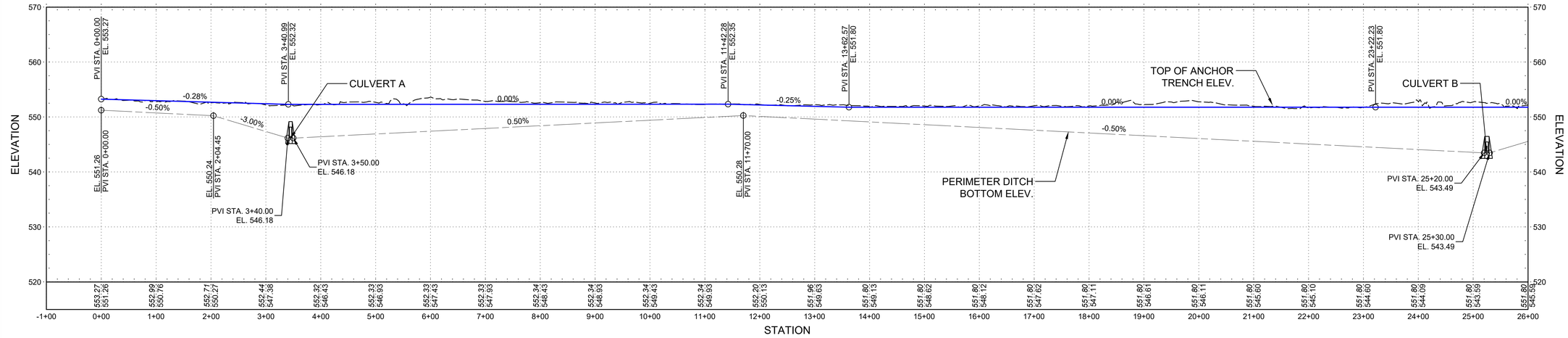
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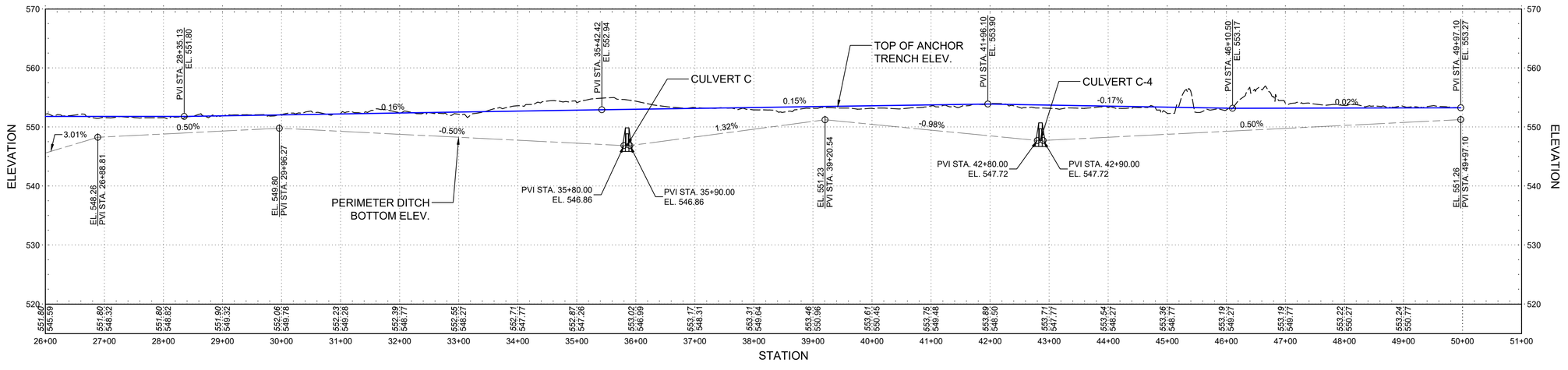
LAKESIDE ASH POND CLOSURE PLAN

C105

SHEET 7 OF 14

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SCALES

VERTICAL 0 10 20

HORIZONTAL 0 100 200

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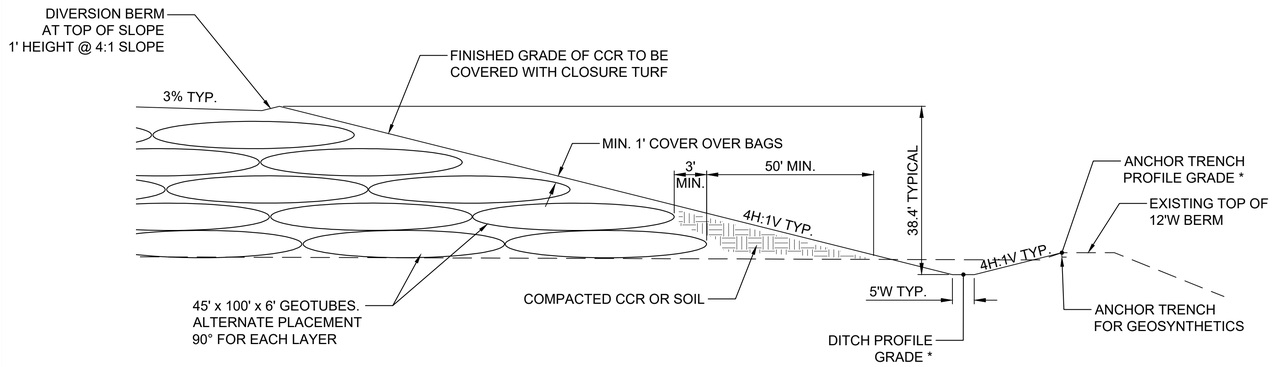
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DALLMAN ASH POND VERTICAL ALIGNMENTS

C201

SHEET 9 OF 100

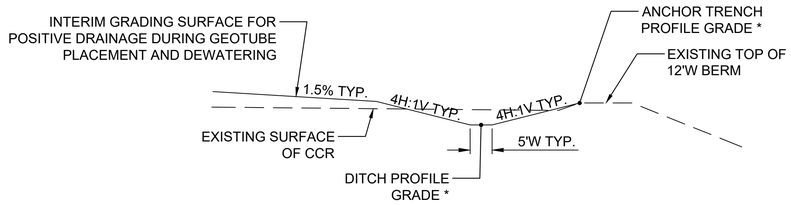
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1 DALLMAN FINAL COVER
SECTION - NOT TO SCALE

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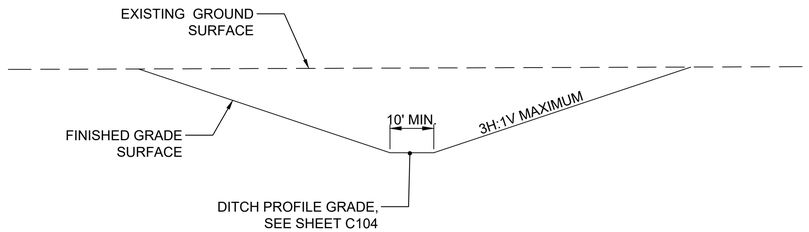
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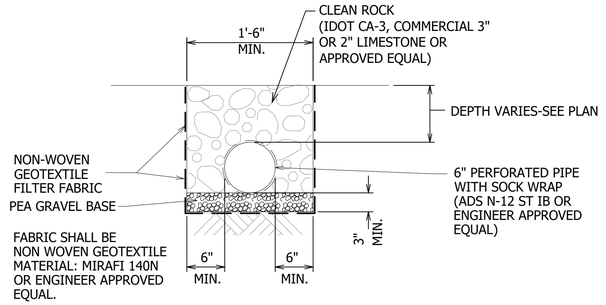
2 DALLMAN INTERIM GRADING
SECTION - NOT TO SCALE

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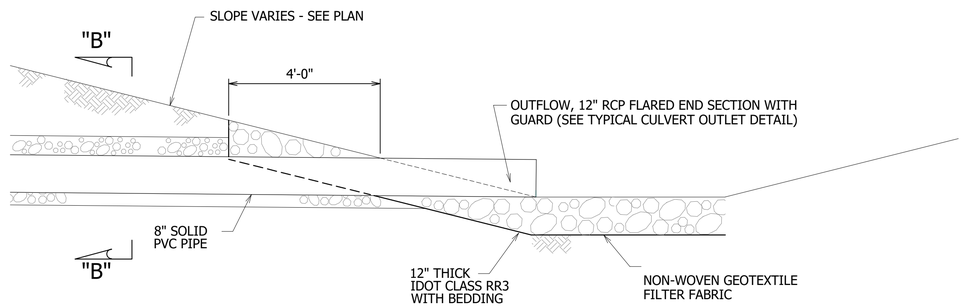
* SEE SHEET C102 FOR ANCHOR TRENCH ALIGNMENT AND SHEET C201 FOR VERTICAL ALIGNMENT AND DITCH PROFILE GRADES.



3 LAKESIDE OUTFALL CHANNEL
SECTION - NOT TO SCALE



4 TOE DRAIN
SECTION - NOT TO SCALE



6 TOE DRAIN OUTFALL
SECTION - NOT TO SCALE

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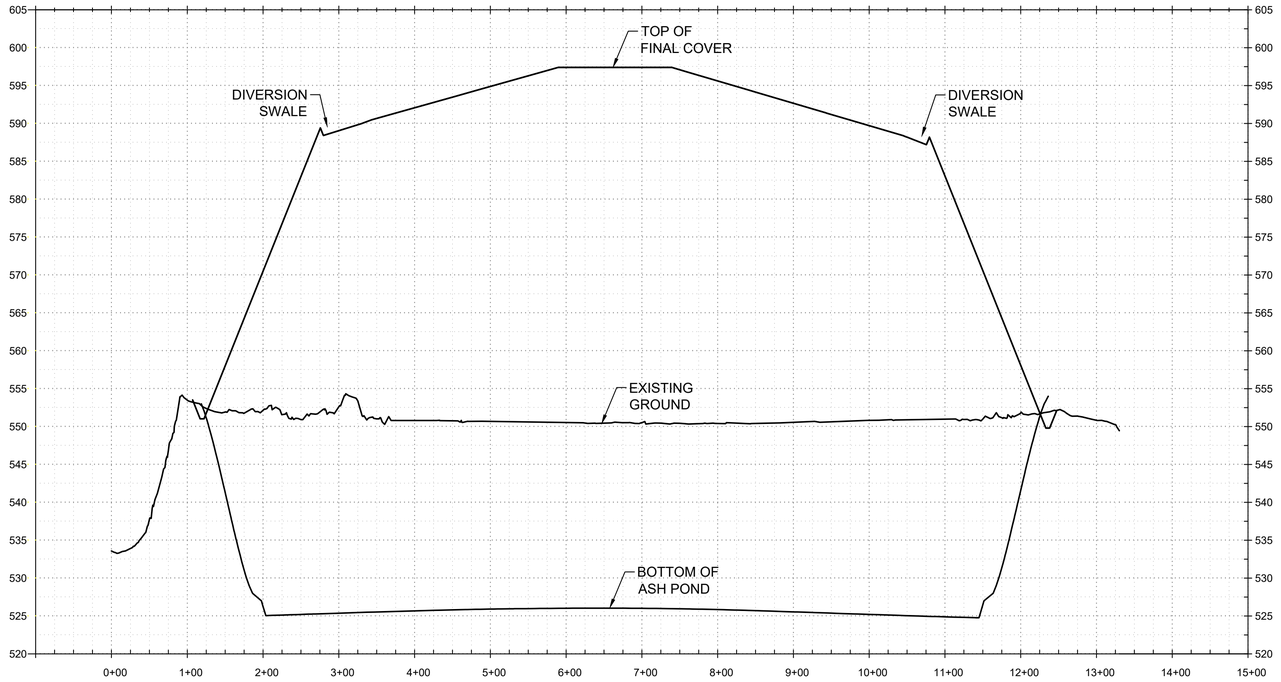
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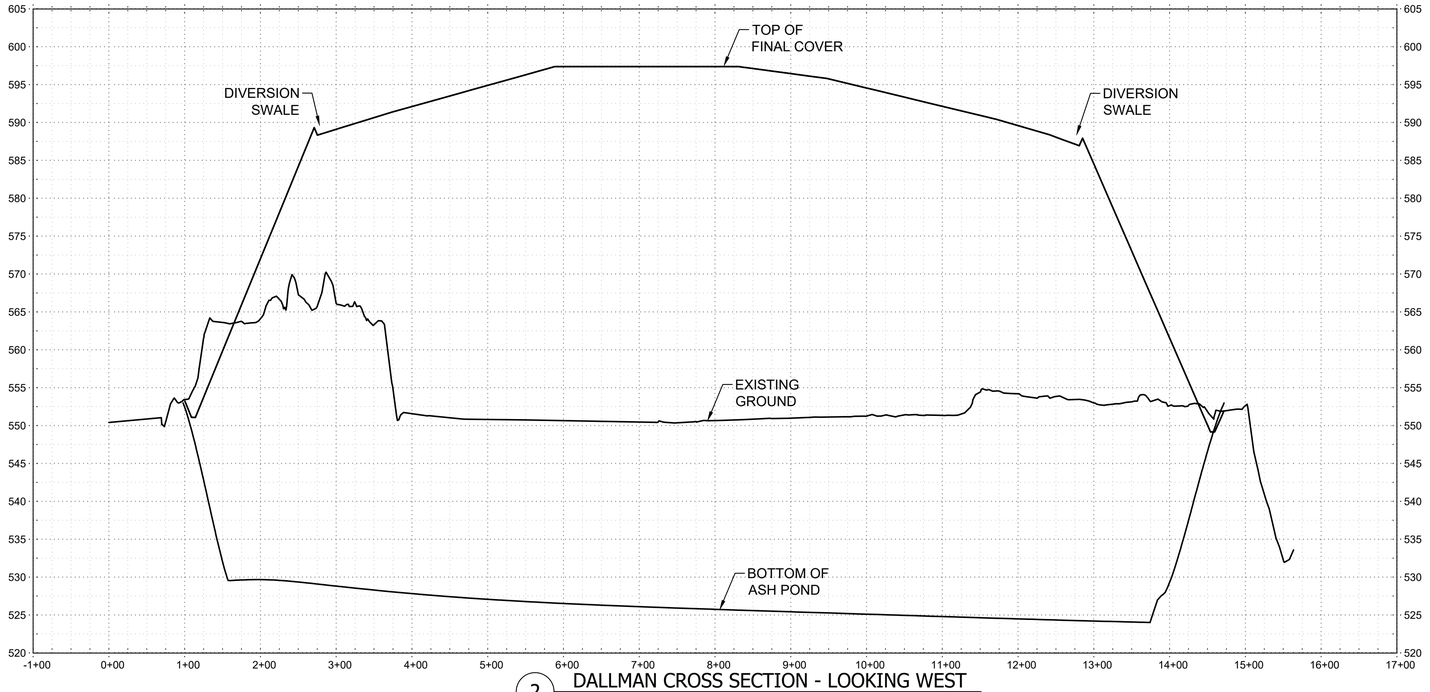
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TYPICAL SECTIONS

C202
SHEET 10 OF 14



1 DALLMAN CROSS SECTION - LOOKING NORTH



2 DALLMAN CROSS SECTION - LOOKING WEST

SCALES

VERTICAL 0 10 20

HORIZONTAL 0 100 200

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BRAD HOOTS, P.E
LIC: IL 062-055737
DATE: 08/27/2025

MARK	DATE	DESCRIPTION		
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ISSUE: 09-20-2025
PROJECT NO: 25E0006
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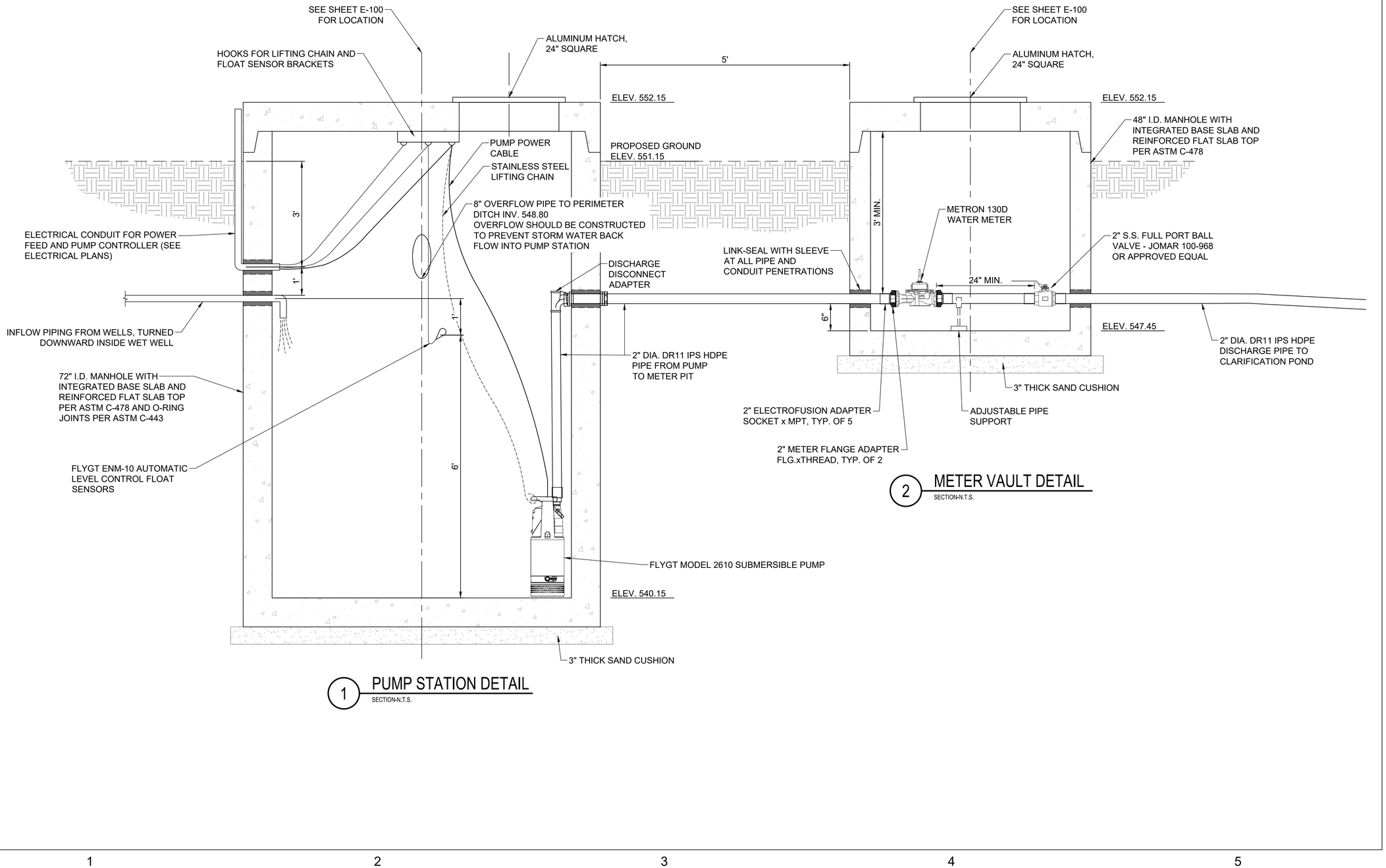
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DALLMAN ASH POND
CROSS SECTIONS

C203

SHEET 11 OF 100

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CONTRACT # UE27-03-14

CCR SURFACE IMPOUNDMENT DEWATERING WELL INSTALLATION

CWLP ASH PONDS

MARK	DATE	DESCRIPTION		
		DES	DRN	REV

ISSUE: 04-10-2026
PROJECT NO: 25E0006
CAD FILE:
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REVIEWED BY: MH

SHEET TITLE

PUMP STATION DETAILS

C501

SHEET 5 OF 9

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LEGEND:

- EXISTING UNDERGROUND PRIMARY ELECTRICAL
- EXISTING UNDERGROUND SECONDARY ELECTRICAL
- PROPOSED UNDERGROUND SECONDARY ELECTRICAL
- EXISTING OVERHEAD PRIMARY ELECTRICAL
- EXISTING OVERHEAD SECONDARY ELECTRICAL
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING NON-POTABLE WATER LINE
- PROPOSED NON POTABLE WATER LINE
- EXISTING SEWER LINE
- EXISTING COMMUNICATION LINE
- EXISTING POWER POLE
- PROPOSED DEWATERING WELLS
- PROPOSED PEIZOMETERS
- EXISTING PIEZOMETERS

CONTROL POINTS				
POINT #	DESCRIPTION	NORTHING	EASTING	
1	DW1	1,129,172.89	2,456,190.50	INSTALLED
2	DW2	1,129,569.14	2,456,154.75	
3	DW3	1,129,936.80	2,456,151.23	
4	DW4	1,130,313.07	2,456,182.95	
5	DW5	1,130,107.46	2,455,860.46	
6	DW6	1,129,724.22	2,455,842.10	
7	DW7	1,129,357.98	2,455,850.94	
8	DW8	1,129,241.10	2,455,528.40	
9	DW9	1,129,594.51	2,455,523.84	
10	DW10	1,129,933.80	2,455,548.64	
11	PUMP STATION	1,129,155.67	2,456,384.60	
12	METER VAULT	1,129,145.67	2,456,384.60	
13	DP09	1,129,444.90	2,455,580.85	
14	DP10	1,129,743.95	2,456,074.55	
15	DP11	1,129,928.80	2,455,838.55	
16	DP12	1,130,095.60	2,455,662.50	
17	DP13	1,130,110.00	2,456,136.50	
18	DP14	1,130,432.75	2,456,271.85	



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CONTRACT # UE27-03-14

CCR SURFACE IMPOUNDMENT DEWATERING WELL INSTALLATION

CWLP ASH PONDS

MARK	DATE	DESCRIPTION		
		DES	DRN	REV

ISSUE: 04-10-2026
PROJECT NO: 25E0006
CAD FILE:
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DRAWN BY: BR
REVIEWED BY: MH

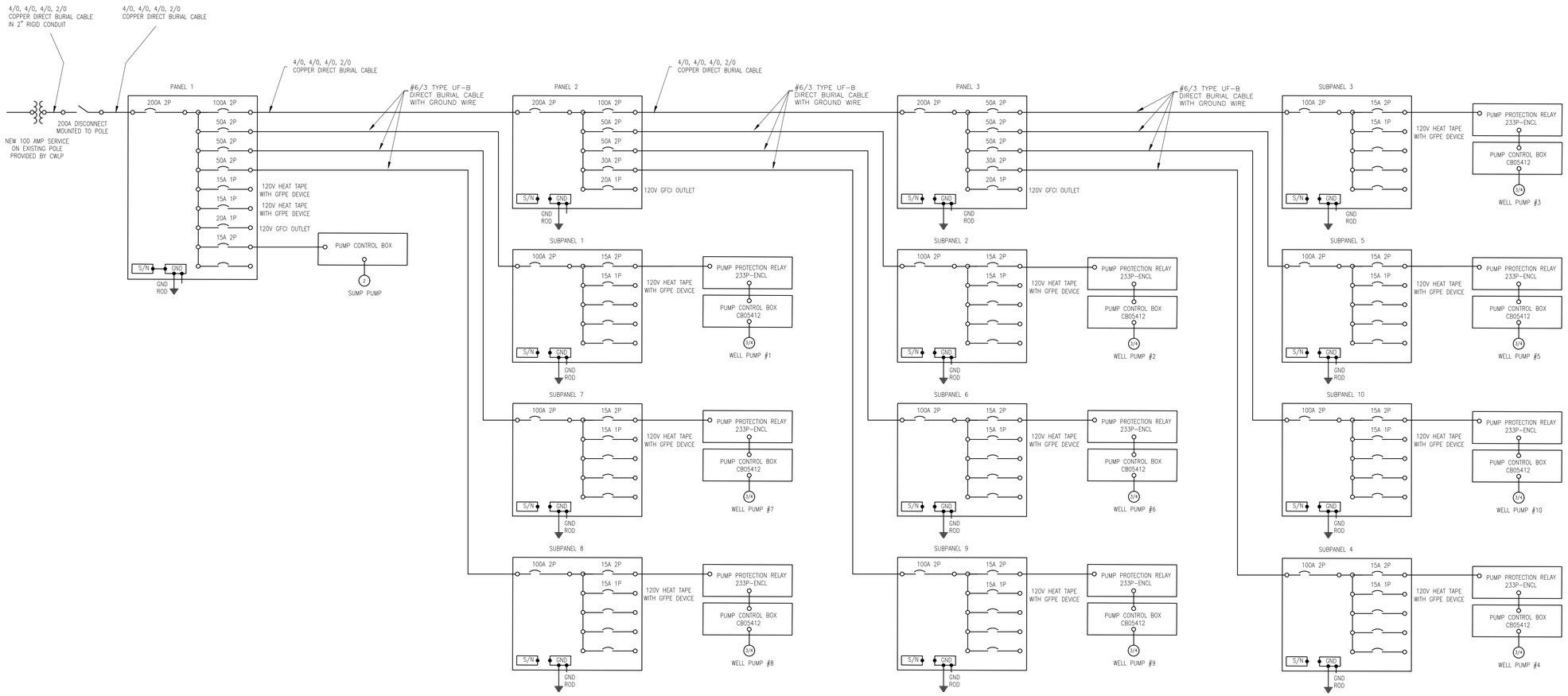
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ELECTRICAL LAYOUT

E100

SHEET 6 OF 9

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CCR SURFACE IMPOUNDMENT DEWATERING WELL INSTALLATION

CWLP ASH PONDS

MARK	DATE	DESCRIPTION		
		DES	DRN	REV

ISSUE: 04-10-2026
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REVIEWED BY: MH

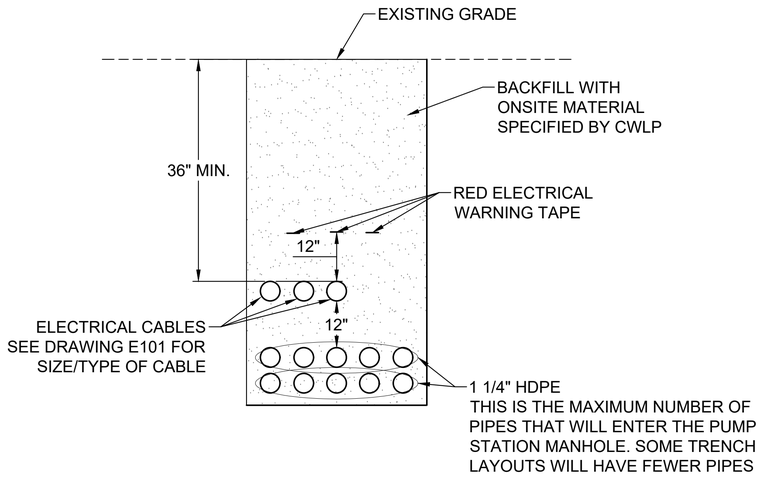
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ELECTRICAL ONELINE

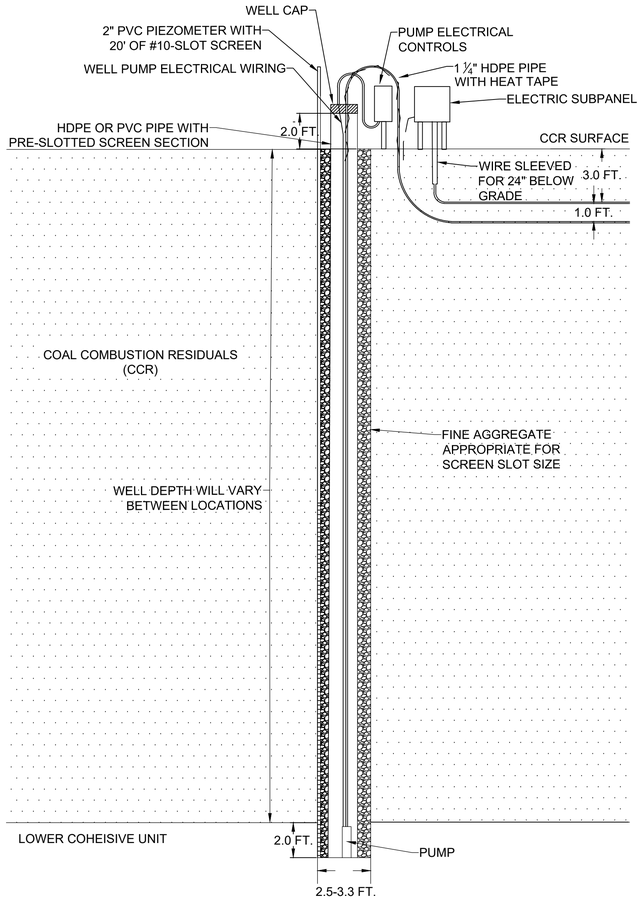
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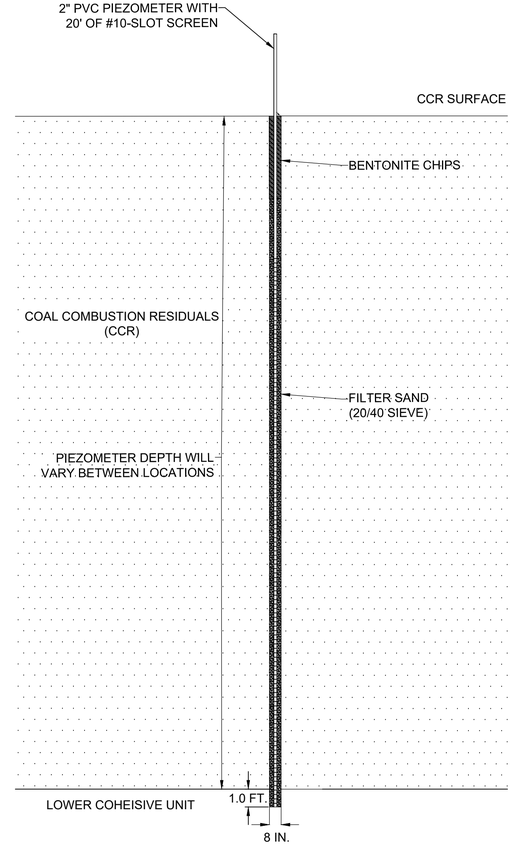
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TYPICAL TRENCH DETAIL



INITIAL WELL INSTALLATION DETAIL



PIEZOMETER INSTALLATION DETAIL

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CITY WATER LIGHT AND POWER · SPRINGFIELD, IL

CONTRACT # UE27-03-14

CCR SURFACE IMPOUNDMENT DEWATERING WELL INSTALLATION

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		DES	DRN	REV

ISSUE: 04-10-2026
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SHEET TITLE

ELECTRICAL TYPICAL

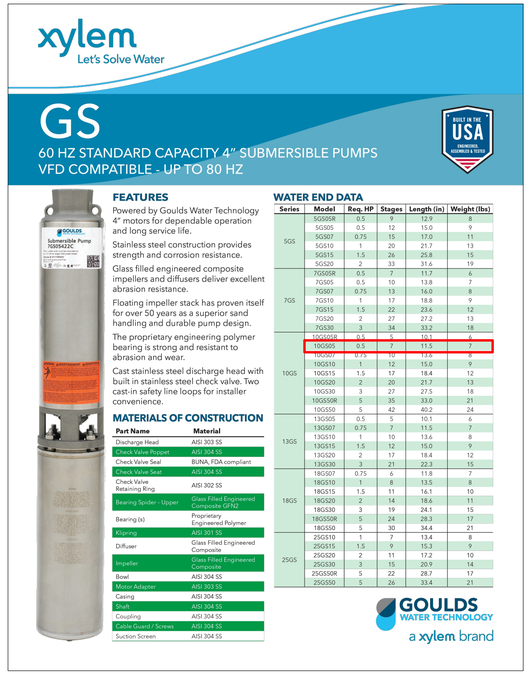
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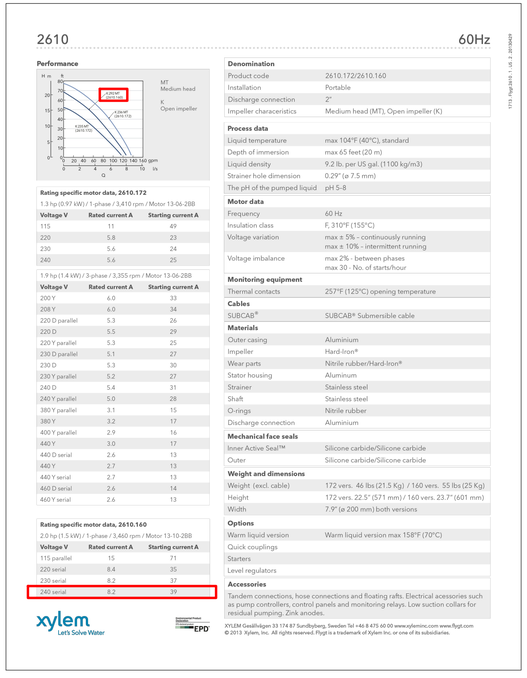
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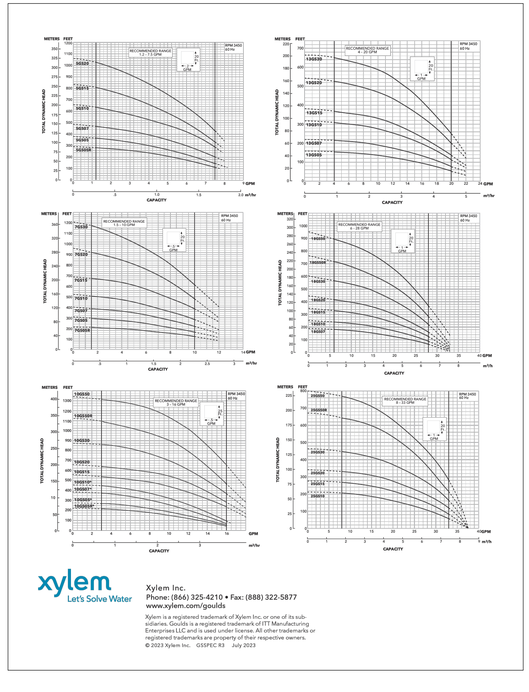
SUMP PUMP DETAILS



WELL PUMP DETAILS



SUMP PUMP DETAILS



WELL PUMP DETAILS

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CCR SURFACE IMPOUNDMENT DEWATERING WELL INSTALLATION

CWLP ASH PONDS

MARK	DATE	DESCRIPTION		
		DES	DRN	REV

ISSUE: 04-10-2026
PROJECT NO: 25E0006
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ELECTRICAL DETAILS

E103

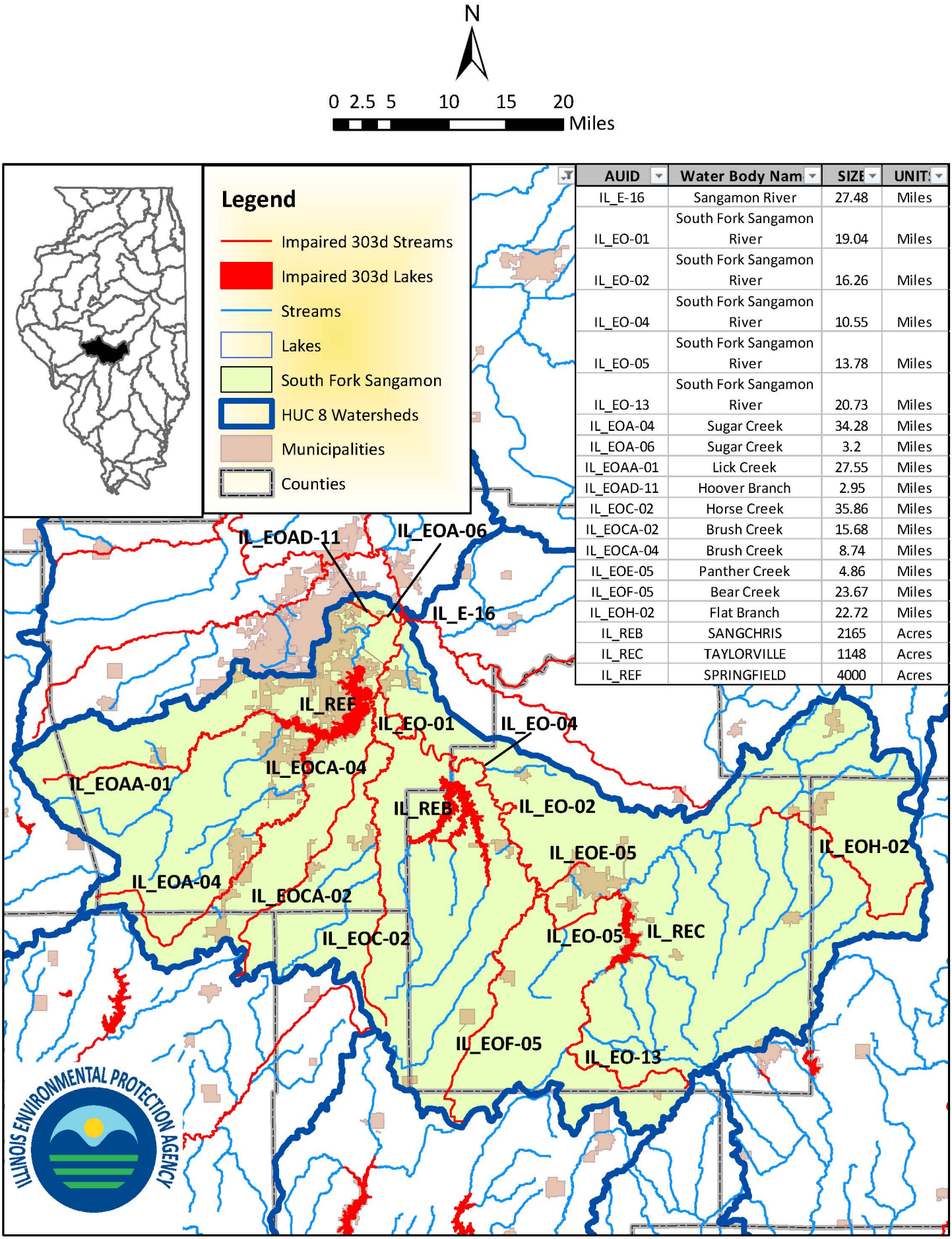
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Appendix H

Illinois EPA Section 303(d) Stream Listings

South Fork Sangamon Watershed (HUC 07130007) 2026



AUID	Water Body Nam	SIZE	UNIT
IL_E-16	Sangamon River	27.48	Miles
IL_EO-01	South Fork Sangamon River	19.04	Miles
IL_EO-02	South Fork Sangamon River	16.26	Miles
IL_EO-04	South Fork Sangamon River	10.55	Miles
IL_EO-05	South Fork Sangamon River	13.78	Miles
IL_EO-13	South Fork Sangamon River	20.73	Miles
IL_EOA-04	Sugar Creek	34.28	Miles
IL_EOA-06	Sugar Creek	3.2	Miles
IL_EOAA-01	Lick Creek	27.55	Miles
IL_EOAD-11	Hoover Branch	2.95	Miles
IL_EOC-02	Horse Creek	35.86	Miles
IL_EOCA-02	Brush Creek	15.68	Miles
IL_EOCA-04	Brush Creek	8.74	Miles
IL_EOE-05	Panther Creek	4.86	Miles
IL_EOF-05	Bear Creek	23.67	Miles
IL_EOH-02	Flat Branch	22.72	Miles
IL_REB	SANGCHRIS	2165	Acres
IL_REC	TAYLORVILLE	1148	Acres
IL_REF	SPRINGFIELD	4000	Acres

Appendix A-1. Specific Assessment Information for Streams, 2026

Code	
Abbreviation	***Use Attainment***
*Any causes listed	Not Supporting
F	Fully Supporting
*Blank	Not Assessed

Designated Uses	
Abbreviation	***Use***
ALU	Aquatic Life Use
AQU	Aesthetic Quality Use
FCU	Fish Consunption Use
PCU	Primary Contact Use
PFPWS	Public and Food Processing Water Supply
CAWS ALU A	Chicago Area Waterway System Aquatic Life Use A
CAWS ALU B	Chicago Area Waterway System and Brandon Pool Aquatic Life Use B
UDIP ALU	Upper Dresden Island Pool Aquatic Life Use
IALU	Indigenous Aquatic Life Use

Cause Abbreviations	
Abbreviation	***Parameter***
2,4-D	2,4-DINITROPHENOL
Aldrin	ALDRIN
Algae	ALGAE
A-BHC	ALPHA-BHC
StreamAlt	ALTERATION IN STREAM-SIDE OR LITTORAL VEGETATIVE COVERS
Ammonia (tot)	AMMONIA, TOTAL
AqPlants	AQUATIC PLANTS (MACROPHYTES)
As	ARSENIC
Atrazine	ATRAZINE
Ba	BARIUM
Be	BERYLLIUM
B	BORON
BotDep	BOTTOM DEPOSITS

Cause Abbreviations (cont.)	
Abbreviation	***Parameter***
Cd	CADMIUM
CauseUnk	CAUSE UNKNOWN
Chlordane	CHLORDANE
Chloride	CHLORIDE
2,4-D	CHLOROPHENOXY HERBICIDES (2,4-D)
Cr	CHROMIUM, TOTAL
Color	COLOR
Cu	COPPER
CN	CYANIDE
DDT	DDT (DICHLORODIPHENYLTRICHLOROETHANE)
Trash	DEBRIS/FLOATABLES/TRASH
Dieldrin	DIELDRIN
Dioxin	DIOXIN (INCLUDING 2,3,7,8-TCDD)
DO	DISSOLVED OXYGEN
Endrin	ENDRIN
E. coli	ESCHERICHIA COLI (E. COLI)
EtOH	ETHANOL
FC	FECAL COLIFORM
FishKill	FISH KILL(S)
FishBarrier	FISH PASSAGE BARRIER
FlowAlt	FLOW ALTERATION-CHANGES IN DEPTH AND FLOW VELOCITY
FlowMod	FLOW REGIME MODIFICATION
Fl	FLUORIDE
HabAlt	HABITAT ALTERATIONS
Heptachlor	HEPTACHLOR
HCB	HEXACHLOROBENZENE
Fe	IRON
Pb	LEAD
Lindane	LINDANE
CoverLoss	LOSS OF INSTREAM COVER
LowFlow	LOW FLOW ALTERATIONS

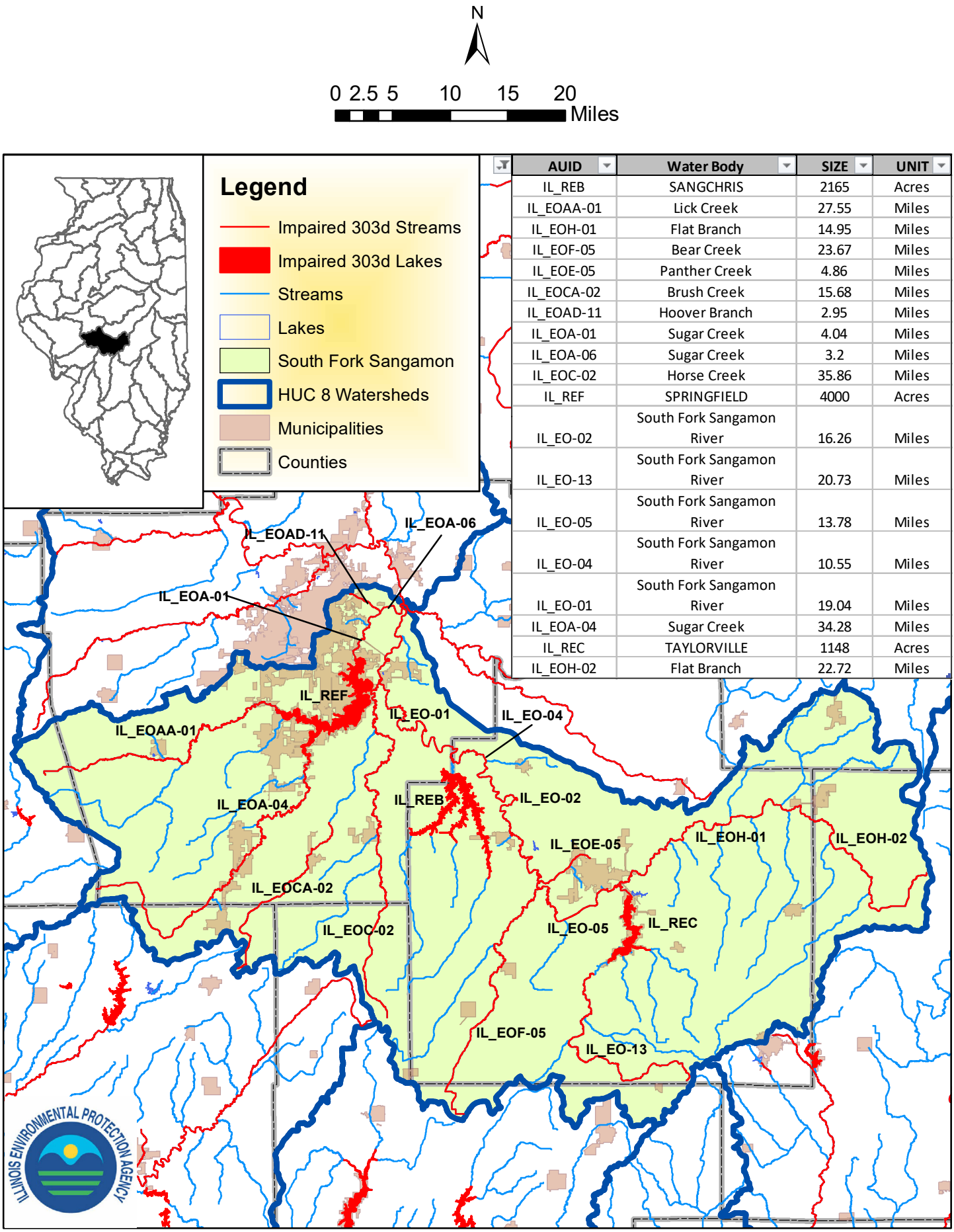
Appendix A-1. Specific Assessment Information for Streams, 2026

Cause Abbreviations (cont.)	
Abbreviation	***Parameter***
Mn	MANGANESE
Hg	MERCURY
Methoxychlor	METHOXYCHLOR
Metolachlor	METOLACHLOR
Mirex	MIREX
Ni	NICKEL
N	NITROGEN
N-Nitrate	NITROGEN, NITRATE
TN	NITROGEN, TOTAL
NonNativePlants	NON-NATIVE AQUATIC PLANTS
NonNativeOrg	NON-NATIVE FISH/SHELLFISH/ZOOPLANKTON
Odor	ODOR
Oil	OIL
OilGrease	OIL AND GREASE
Petroleum	PETROLEUM HYDROCARBONS
pH	PH
TP	PHOSPHORUS, TOTAL
PCBs	POLYCHLORINATED BIPHENYLS (PCBS)
SedODemand	SEDIMENT OXYGEN DEMAND
Sed/Silt	SEDIMENTATION/SILTATION
Se	SELENIUM
Ag	SILVER
Simazine	SIMAZINE
Sludge	SLUDGE
SO2	SULFATE
Temp	TEMPERATURE
Terbufos	TERBUFOS
TDS	TOTAL DISSOLVED SOLIDS (TDS)
TSS	TOTAL SUSPENDED SOLIDS (TSS)
Toxaphene	TOXAPHENE
Turb	TURBIDITY
Zn	ZINC

Appendix A-1. Specific Assessment Information for Streams, 2026

Water Body Name	Assessment Unit ID	Hydrologic Unit Code	Category	ALU	AQU	FCU	PCU	PFPWS	CAWS ALU A	CAWS ALU B	UDIP ALU	IALU
Steward Creek	IL_PLC-01	0709000503	2	F								
Stillhouse Creek	IL_ATHT-01	0514020403	5	pH, DO, SO2								
Stillman Creek	IL_PP-01	0709000504	2	F	F							
Stinking Creek	IL_CZH	0512011409	3									
Stone Creek	IL_ONC	0714020203	3									
Stony Creek	IL_BPJB-02	0512010904	2	F	F							
Stony Creek	IL_BPF-01	0512010909	2	F								
Stony Creek	IL_BPJB-01	0512010906, 0512010904	3									
Stony Creek	IL_DGF	0713001010	3									
Stony Creek	IL_DTFAA	0712000701	3									
Stony Creek-East	IL_HJ	0712000304	3									
Stony Creek-West	IL_HG	0712000304	3									
Stookey Creek	IL_JMAABA-C1	0714010105	5	StreamAlt, TP								
Storckman Creek	IL_BZKC	0512011301	3									
Straddle Creek	IL_MJBA-01	0706000509	5	StreamAlt, TP								
Strawn Creek	IL_DZL	0713000113	3									
Stringtown Branch	IL_OTE	0714020106	3									
Suck Creek	IL_OZZC-01	0714020206	3									
Sugar Camp Creek	IL_NHH	0714010604	5	DO	F							
Sugar Camp Creek	IL_JQIA	0714010101	3									
Sugar Creek	IL_CG	0512011408	5	CauseUnk	F							
Sugar Creek	IL_ATHG-02	0514020401	5	DO	F							
Sugar Creek	IL_ATHG-05	0514020401	5	DO, Mn	F		FC					
Sugar Creek	IL_EOA-04	0713000707	5	DO, TP	F							
Sugar Creek	IL_FLI-02	0712000210, 0712000207	5	F	F	Hg	FC					
Sugar Creek	IL_FLI-03	0712000207	5	F	F	Hg	FC					
Sugar Creek	IL_DH-01	0713000310, 0713000309	4A	F	F		FC					
Sugar Creek	IL_EID-04	0713000907	4A	F	F		FC					
Sugar Creek	IL_EID-C1	0713000907	2	F	F							
Sugar Creek	IL_EID-07	0713000908, 0713000907	2	F	F							
Sugar Creek	IL_EOA-01	0713000707	2	F	F							
Sugar Creek	IL_PHB-01	0709000507	2	F	F							
Sugar Creek	IL_ATHG-07	0514020401	2	F								
Sugar Creek	IL_EID-C8	0713000907	2	F								
Sugar Creek	IL_ATHG-01	0514020401	5	Fe, Zn, TP, Cd, Ni, pH, TSS, Mn, DO, StreamAlt	Color, Sludge, Trash		F					

South Fork Sangamon Watershed (HUC 07130007) 2024



AUID	Water Body	SIZE	UNIT
IL_REB	SANGCHRIS	2165	Acres
IL_EOAA-01	Lick Creek	27.55	Miles
IL_EOH-01	Flat Branch	14.95	Miles
IL_EOF-05	Bear Creek	23.67	Miles
IL_EOE-05	Panther Creek	4.86	Miles
IL_EOCA-02	Brush Creek	15.68	Miles
IL_EOAD-11	Hoover Branch	2.95	Miles
IL_EOA-01	Sugar Creek	4.04	Miles
IL_EOA-06	Sugar Creek	3.2	Miles
IL_EOC-02	Horse Creek	35.86	Miles
IL_REF	SPRINGFIELD	4000	Acres
IL_EO-02	South Fork Sangamon River	16.26	Miles
IL_EO-13	South Fork Sangamon River	20.73	Miles
IL_EO-05	South Fork Sangamon River	13.78	Miles
IL_EO-04	South Fork Sangamon River	10.55	Miles
IL_EO-01	South Fork Sangamon River	19.04	Miles
IL_EOA-04	Sugar Creek	34.28	Miles
IL_REC	TAYLORVILLE	1148	Acres
IL_EOH-02	Flat Branch	22.72	Miles

Appendix A-1. Specific Assessment Information for Streams, 2024

Code	
Abbreviation	*Use Attainment*
*Any causes listed	Not Supporting
F	Fully Supporting
X	Not Assessed

Cause Abbreviations	
Abbreviation	*Parameter*
2,4-D	2,4-DINITROPHENOL
Aldrin	ALDRIN
Algae	ALGAE
A-BHC	ALPHA-BHC
StreamAlt	ALTERATION IN STREAM-SIDE OR LITTORAL VEGETATIVE COVERS
Ammonia (tot)	AMMONIA, TOTAL
AqPlants	AQUATIC PLANTS (MACROPHYTES)
As	ARSENIC
Atrazine	ATRAZINE
Ba	BARIUM
Be	BERYLLIUM
B	BORON
BotDep	BOTTOM DEPOSITS
Cd	CADMIUM
CauseUnk	CAUSE UNKNOWN
Chlordane	CHLORDANE
Chloride	CHLORIDE
ChlorHerbs(2,4-D)	CHLOROPHENOXY HERBICIDES (2,4-D)
Cr	CHROMIUM TOTAL
Color	COLOR
Cu	COPPER
CN	CYANIDE
DDT	DDT (DICHLORODIPHENYLTRICHLOROETHANE)
Trash	DEBRIS/FLOATABLES/TRASH

Cause Abbreviations	
Abbreviation	*Parameter*
Methoxychlor	METHOXYCHLOR
Mirex	MIREX
Ni	NICKEL
N	NITROGEN
N-Nitrate	NITROGEN, NITRATE
TN	NITROGEN, TOTAL
NonNativePlants	NON-NATIVE AQUATIC PLANTS
NonNativeOrg	NON-NATIVE FISH/SHELLFISH/ZOOPLANKTON
Odor	ODOR
Oil	OIL
OilGrease	OIL AND GREASE
Petroleum	PETROLEUM HYDROCARBONS
pH	PH
TP	PHOSPHORUS, TOTAL
PCBs	POLYCHLORINATED BIPHENYLS (PCBS)
SedODemand	SEDIMENT OXYGEN DEMAND
Sed/Silt	SEDIMENTATION/SILTATION
Ag	SILVER
Simazine	SIMAZINE
Sludge	SLUDGE
SO2	SULFATE
TEMP	TEMPERATURE
Terbufos	TERBUFOS
TDS	TOTAL DISSOLVED SOLIDS (TDS)

Appendix A-1. Specific Assessment Information for Streams, 2024

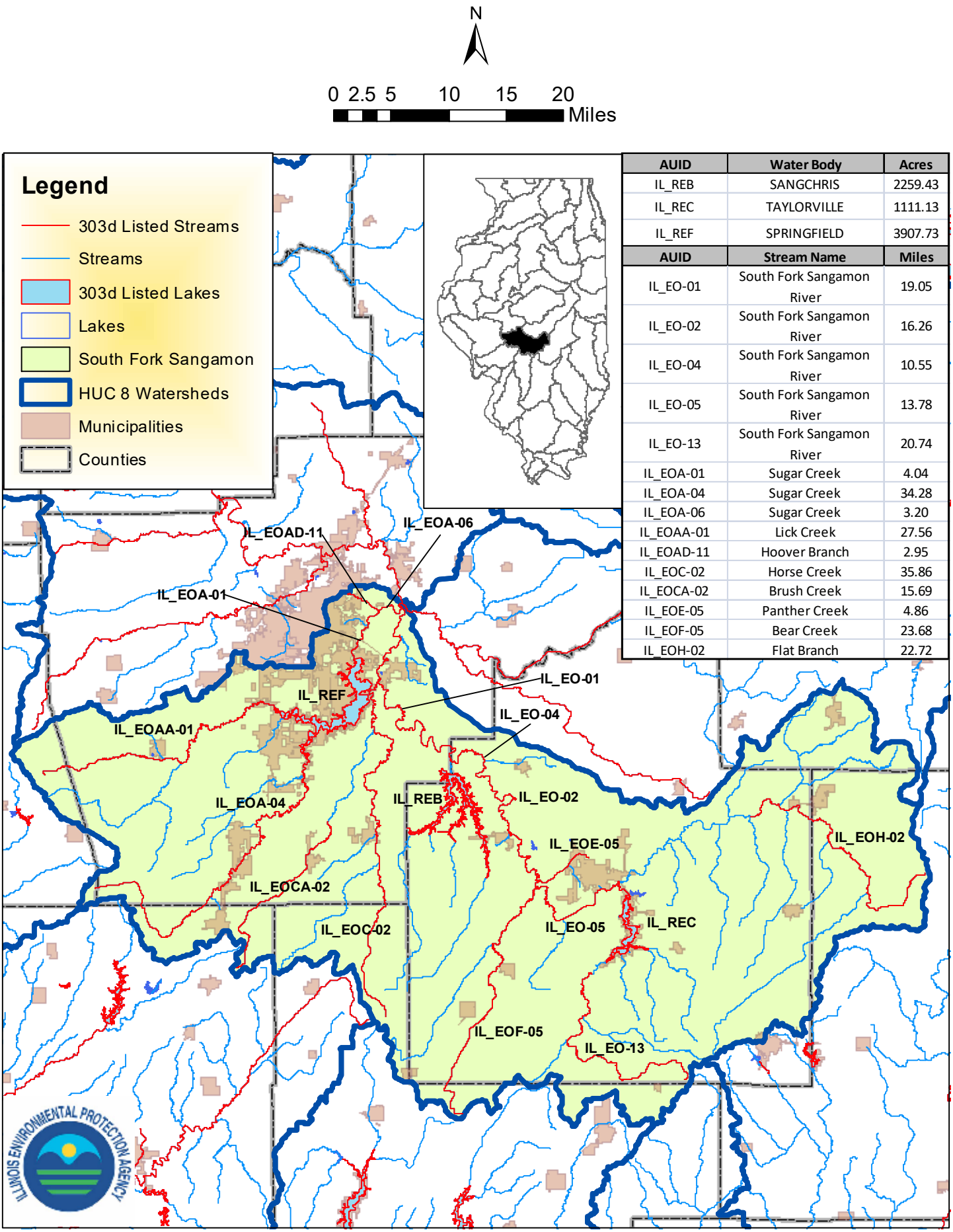
Dieldrin	DIELDRIN
Dioxin	DIOXIN (INCLUDING 2,3,7,8,-TCDD)
DO	DISSOLVED OXYGEN
Endrin	ENDRIN
E. coli	ESCHERICHIA COLI (E. COLI)
EtOH	ETHANOL
FC	FECAL COLIFORM
FishKill	FISH KILL(S)
FishBarrier	FISH PASSAGE BARRIER
FlowAlt	FLOW ALTERATION-CHANGES IN DEPTH AND FLOW VELOCITY
FlowMod	FLOW REGIME MODIFICATION
F	FLUORIDE
HabAlt	HABITAT ALTERATIONS
Heptachlor	HEPTACHLOR
HCB	HEXACHLOROBENZENE
Fe	IRON
Pb	LEAD
Lindane	LINDANE
CoverLoss	LOSS OF INSTREAM COVER
LowFlow	LOW FLOW ALTERATIONS
Mn	MANGANESE
Hg	MERCURY
TSS	TOTAL SUSPENDED SOLIDS (TSS)
Toxaphene	TOXAPHENE
TURB	TURBIDITY
Zn	ZINC

Designated Uses	
Abbreviation	*Use*
ALU	Aquatic Life Use
AQU	Aesthetic Quality Use
FCU	Fish Consunption Use
PCU	Primary Contact Use
PFPWS	Public and Food Processing Water Supply
IALU	Indigenous Aquatic Life Use

Appendix A-1. Specific Assessment Information for Streams, 2024

Water Body Name	Assessment Unit ID	Hydrologic Unit Code	Category	ALU	AQU	FCU	PCU	PFPWS	IALU
Sugar Creek	IL_OH-HL-D1	0714020401	5	DO, TP	X	X	X		
Sugar Creek	IL_EOA-06	0713000707	5	StreamAlt, TP, B	X	X	X		
Sugar Creek	IL_EOA-01	0713000707	5	B	X	X	X		
Sugar Creek	IL_FLI-03	0712000207	5	F	F	Hg	FC		
Sugar Creek	IL_OH-01	0714020409, 0714020401	5	TP	F	Aldrin, Endrin, Mirex, Toxaphene,	FC		
Sugar Creek	IL_ATHG-01	0514020401	5	TP, StreamAlt, TSS	BotDep, Color	X	F		
Sugar Creek	IL_ATHG-05	0514020401	5	Mn, DO	F	X	FC		
Sugar Creek	IL_FLI-02	0712000210, 0712000207	5	F	F	Hg	FC		
Sugar Creek	IL_BF-01	0512011114, 0512011116	5	TP, TSS	F	X	FC		
Sugar Creek	IL_EID-04	0713000907	4A	F	F	X	FC		
Sugar Creek	IL_ATHG-07	0514020401	2	F	X	X	X		
Sugar Creek	IL_NZP	0714010607	3	X	X	X	X		
Sugar Creek	IL_NDJA	0714010608	3	X	X	X	X		
Sugar Creek	IL_NCNA	0714010610	3	X	X	X	X		
Sugar Creek	IL_NCQ	0714010610	3	X	X	X	X		
Sugar Creek	IL_NAJ	0714010612	3	X	X	X	X		
Sugar Creek	IL_OPABA	0714020201	3	X	X	X	X		
Sugar Creek	IL_OCG	0714020406	3	X	X	X	X		
Sugar Creek	IL_DAB	0713001206	3	X	X	X	X		
Sugar Creek	IL_DJJA-02	0713000505	3	X	X	X	X		
Sugar Creek	IL_EID-C8	0713000907	2	F	X	X	X		
Sugar Creek	IL_EID-07	0713000908, 0713000907	2	F	F	X	X		
Sugar Creek	IL_DAZO	0713001201	3	X	X	X	X		
Sugar Creek	IL_JQJ	0714010101	3	X	X	X	X		
Sugar Creek	IL_PHB-01	0709000507	2	F	F	X	X		
Sugar Creek	IL_BPKK-01	0512010905	3	X	X	X	X		
Sugar Creek	IL_BF-22	0512011114	2	X	F	X	X		

South Fork Sangamon Watershed (HUC 07130007) 2022



AUID	Water Body	Acres
IL_REB	SANGCHRIS	2259.43
IL_REC	TAYLORVILLE	1111.13
IL_REF	SPRINGFIELD	3907.73

AUID	Stream Name	Miles
IL_EO-01	South Fork Sangamon River	19.05
IL_EO-02	South Fork Sangamon River	16.26
IL_EO-04	South Fork Sangamon River	10.55
IL_EO-05	South Fork Sangamon River	13.78
IL_EO-13	South Fork Sangamon River	20.74
IL_EOA-01	Sugar Creek	4.04
IL_EOA-04	Sugar Creek	34.28
IL_EOA-06	Sugar Creek	3.20
IL_EOAA-01	Lick Creek	27.56
IL_EOAD-11	Hoover Branch	2.95
IL_EOC-02	Horse Creek	35.86
IL_EOCA-02	Brush Creek	15.69
IL_EOE-05	Panther Creek	4.86
IL_EOF-05	Bear Creek	23.68
IL_EOH-02	Flat Branch	22.72

No 2020 Integrated Water Quality Report was prepared.

Appendix B-2. Specific Assessment Information for Streams, 2018

Legend

Code	Description
F	Fully Supporting
N	Not Supporting
I	Insufficient Information
X	Not Assessed

USE ID	Use Description
582	Aquatic Life
583	Fish Consumption
584	Public and Food Processing Water Supplies
585	Primary Contact Recreation
587	Indigenous Aquatic Life
590	Aesthetic Quality

Cause ID	Cause Description
1	.alpha.-BHC
79	Aldrin
84	Alteration in stream-side or littoral vegetative covers
85	Alterations in wetland habitats
91	Ammonia (Un-ionized)
96	Arsenic
99	Atrazine
104	Barium
123	Boron
127	Cadmium
137	Chlordane
138	Chloride
139	Chlorine
154	Chromium (total)
160	Color
163	Copper
177	DDT
181	Debris/Floatables/Trash
198	Dieldrin
203	Dioxin (including 2,3,7,8-TCDD)
213	Endrin
228	Fish-Passage Barrier
229	Fish Kills
234	Fluoride
244	Heptachlor
246	Hexachlorobenzene
260	Iron
267	Lead
268	Lindane
270	Low flow alterations
273	Manganese
274	Mercury
277	Methoxychlor

Cause ID	Cause Description
301	Nickel
308	Ammonia (Total)
313	Nonnative Fish, Shellfish, or Zooplankton
317	Oil and Grease
319	Other flow regime alterations
322	Oxygen, Dissolved
348	Polychlorinated biphenyls
371	Sedimentation/Siltation
375	Silver
376	Simazine
385	Sulfates
388	Temperature, water
390	Terbufos
399	Total Dissolved Solids
400	Fecal Coliform
403	Total Suspended Solids (TSS)
413	Turbidity
423	Zinc
441	pH
452	Nitrogen, Nitrate
462	Phosphorus (Total)
463	Cause Unknown
471	Bottom Deposits
478	Aquatic Plants (Macrophytes)
479	Aquatic Algae
480	Petroleum Hydrocarbons
500	Changes in Stream Depth and Velocity Patterns
501	Loss of Instream Cover
502	Sludge
519	Visible Oil
520	Odor
521	Ethanol

Appendix B-2. Specific Assessment Information for Streams, 2018

Legend

Source ID	Description
2	Acid Mine Drainage
4	Animal Feeding Operations (NPS)
10	Atmospheric Deposition - Toxics
20	Channelization
23	Combined Sewer Overflows
28	Contaminated Sediments
36	Drainage/Filling/Loss of Wetlands
38	Dredging (E.g., for Navigation Channels)
45	Golf Courses
49	Highway/Road/Bridge Runoff (Non-construction Related)
50	Highways, Roads, Bridges, Infrastructure (New Construction)
56	Impacts from Abandoned Mine Lands (Inactive)
58	Impacts from Hydrostructure Flow Regulation/modification
61	Industrial Land Treatment
62	Industrial Point Source Discharge
66	Irrigated Crop Production
69	Landfills
72	Loss of Riparian Habitat
73	Managed Pasture Grazing
82	Mine Tailings
84	Municipal (Urbanized High Density Area)
85	Municipal Point Source Discharges
87	Non-irrigated Crop Production
95	Other Recreational Pollution Sources
102	Petroleum/natural Gas Activities

Source ID	Description
109	Rcra Hazardous Waste Sites
115	Sanitary Sewer Overflows (Collection System Failures)
119	Silviculture Harvesting
122	Site Clearance (Land Development or Redevelopment)
124	Spills from Trucks or Trains
125	Streambank Modifications/destabilization
126	Subsurface (Hardrock) Mining
127	Surface Mining
130	Unpermitted Discharge (Domestic Wastes)
132	Upstream Impoundments (e.g., Pl-566 NRCS Structures)
135	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)
140	Source Unknown
142	Dam or Impoundment
143	Livestock (Grazing or Feeding Operations)
144	Crop Production (Crop Land or Dry Land)
149	Sediment Resuspension (Contaminated Sediment)
155	Natural Sources
156	Agriculture
157	Habitat Modification - other than Hydromodification
160	Inappropriate Waste Disposal
161	Pesticide Application
177	Urban Runoff/Storm Sewers
178	Coal Mining (Subsurface)
181	Runoff from Forest/Grassland/Parkland

Appendix B-2. Specific Assessment Information for Streams, 2018

Name	Assessment-Unit ID	10-Digit HUC	IEPA Basin	Category	Length (miles)	Use Attainment	Causes	Sources
Sugar Creek	IL_ATHG-05	0514020401	32	4A	0.92	F582, X583, N585, X590	400	N/A
Sugar Creek	IL_ATHG-07	0514020401	32	2	7.46	F582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_BCEB	0512011304	31	3	2.82	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_BDA	0512011215	30	3	3.32	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_BF-01	0512011114	30	5	4.84	N582, X583, N585, N590	138, 403, 462, 400, 480, 520	62, 85, 177, 20, 72, 156, 140
Sugar Creek	IL_BF-22	0512011114	30	3	9.46	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_BPKK-01	0512010905	29	3	13.89	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_CG	0512011408	31	2	14.12	F582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_CHD	0512011406	31	3	11.2	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_CJB	0512011405	31	3	12.96	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_DAB	0713001206	18	3	4.95	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_DAZO	0713001201	18	3	6.88	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_DH-01	0713000309	13	5	42.55	F582, X583, N585, F590	400	140
Sugar Creek	IL_DJJA-02	0713000505	15	3	6.29	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_EID-04	0713000907	22	2	9.92	F582, X583, F590	N/A	N/A
Sugar Creek	IL_EID-07	0713000907	22	2	13.7	F582, X583, X585, F590	N/A	N/A
Sugar Creek	IL_EID-C1	0713000907	22	5	23.91	N582, X583, X585, F590	462, 501	85, 20
Sugar Creek	IL_EID-C8	0713000906	22	2	12.66	F582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_EOA-01	0713000707	20	5	4.04	N582, X583, X590	123	62
Sugar Creek	IL_EOA-04	0713000707	20	5	34.28	N582, X583, X585, F590	322, 462	140, 85, 144
Sugar Creek	IL_EOA-06	0713000707	20	5	3.2	N582, X583, X585, X590	84, 123, 462	132, 144, 62, 85
Sugar Creek	IL_FLI-02	0712000207	10	5	23.65	F582, N583, N585, F590	274, 400	10, 140
Sugar Creek	IL_FLI-03	0712000207	10	5	15.11	F582, N583, N585, F590	274, 400	10, 140
Sugar Creek	IL_JQJ	0714010101	27	3	3.25	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_NAJ	0714010612	26	3	4.2	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_NCNA	0714010610	26	3	3.67	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_NCQ	0714010610	26	3	6.02	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_NDJA	0714010608	26	3	5.51	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_NZP	0714010607	26	3	3.03	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_OCG	0714020406	25	3	5.23	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_OH-01	0714020401	25	5	23.91	N582, X583, N585, F590	84, 322, 462, 400	4, 72, 156, 140
Sugar Creek	IL_OH-05	0714020401	25	5	5.79	N582, X583, X585, F590	84, 213, 322, 371, 462	85, 144
Sugar Creek	IL_OH-HL-D1	0714020401	25	5	11.89	N582, X583, X585, X590	322, 462	140, 144
Sugar Creek	IL_OPABA	0714020201	24	3	6.26	X582, X583, X585, X590	N/A	N/A
Sugar Creek	IL_PHB-01	0709000507	6	2	14.71	F582, X583, X585, X590	N/A	N/A
Sugar Creek-Central	IL_BI	0512011108	30	3	7.61	X582, X583, X585, X590	N/A	N/A
Sugar Creek-North	IL_BM	0512011105	30	3	4.73	X582, X583, X585, X590	N/A	N/A
Sugar Creek-North	IL_BM-02	0512011105	30	2	14.33	F582, X583, F590	N/A	N/A
Sugar Creek-North	IL_BM-A1	0512011105	30	3	1.11	X582, X583, X585, X590	N/A	N/A
Sugar Creek-North	IL_BM-C2	0512011105	30	5	2.18	N582, X583, X585, X590	319, 322, 371, 462	58, 85
Sugar Creek-South	IL_BEBB	0512011214	30	3	6.83	X582, X583, X585, X590	N/A	N/A
Sugar Creek-South	IL_BZW	0512011117	30	3	7.29	X582, X583, X585, X590	N/A	N/A
Sugar Fork	IL_ODLA-01	0714020404	25	5	18.56	N582, X583, X585, X590	273, 322	4, 66, 102, 143, 156
Sugar River	IL_PWB-01	0709000408	7	5	5.65	F582, N583, X585, X590	348	140
Sugar River	IL_PWB-03	0709000408	7	5	4.67	F582, N583, X585, F590	348	140
Sugar Run	IL_GF-01	0712000409	2	5	7.32	N582, X583, X585, X590	96, 273, 322, 371, 441	28, 177, 122, 144
Sullivan Branch	IL_NHJ	0714010604	26	3	6.59	X582, X583, X585, X590	N/A	N/A
Sulphur Branch	IL_OJFA	0714020208	24	3	2.69	X582, X583, X585, X590	N/A	N/A
Sumner Creek	IL_PWH-02	0709000314	7	2	12.97	F582, X583, X585, F590	N/A	N/A
Sunfish Slough	IL_MF	0708010102	9	3	0.41	X582, X583, X585, X590	N/A	N/A
Susan Branch	IL_CHC	0512011406	31	3	2.26	X582, X583, X585, X590	N/A	N/A
Sutphens Run	IL_DTAC	0712000705	4	2	12.98	F582, X583, X585, X590	N/A	N/A
Sutton Creek	IL_CAZB	0512011502	31	3	7.5	X582, X583, X585, X590	N/A	N/A
Swab Run	IL_DJIA	0713000506	15	4C	11.54	N582, X583, X585, X590	84	20, 125, 144
Swafford Branch	IL_OSA	0714020108	23	3	5.99	X582, X583, X585, X590	N/A	N/A
Swan Creek	IL_DJFB-01	0713000509	15	2	30.78	F582, X583, X585, F590	N/A	N/A
Swank Creek	IL_BOE	0512010810	29	3	8.55	X582, X583, X585, X590	N/A	N/A
Swanwick Creek	IL_NCK-01	0714010610	26	5	20.7	N582, X583, X585, X590	322, 463	140, 143, 156
Sweetwater Creek	IL_BENB	0512011206	30	3	2.74	X582, X583, X585, X590	N/A	N/A
Swegle Creek	IL_DJZJ	0713000510	15	3	10.32	X582, X583, X585, X590	N/A	N/A
Sycamore Creek	IL_CDE	0512011407	31	3	4.57	X582, X583, X585, X590	N/A	N/A
Sycamore Creek	IL_LZX	0708010416	16	3	3.35	X582, X583, X585, X590	N/A	N/A
Sycamore Creek	IL_NDCA	0714010608	26	5	5.66	N582, X583, X585, F590	322, 441	2, 56, 72, 144, 156
Tadlock Branch	IL_CAWE	0512011502	31	3	3.67	X582, X583, X585, X590	N/A	N/A
Talbot Creek	IL_LDDB	0708010408	16	3	10.68	X582, X583, X585, X590	N/A	N/A
Tallula Creek	IL_EGD	0713000806	20	3	2.86	X582, X583, X585, X590	N/A	N/A
Tar Creek	IL_EZC	0713000806	20	3	9.8	X582, X583, X585, X590	N/A	N/A
Tar Hollow	IL_DAZA	0713001206	18	3	5.44	X582, X583, X585, X590	N/A	N/A
Tater Creek	IL_DJZA	0713000514	15	2	14.63	F582, X583, X585, F590	N/A	N/A
Taylor Branch	IL_CZZH	0512011408	31	3	4.25	X582, X583, X585, X590	N/A	N/A
Taylor Branch	IL_NHHB	0714010604	26	3	4.63	X582, X583, X585, X590	N/A	N/A
Taylor Creek	IL_DAF-01	0713001203	18	5	24.1	N582, X583, X585, X590	273, 403	140, 144
Tenmile Creek	IL_ATFI-MC-C4	0514020404	32	5	3.02	N582, X583, X585, X590	84, 463	20
Tenmile Creek	IL_ATFI-MC-D1	0514020404	32	5	8.94	N582, X583, X585, F590	84, 319, 322, 500, 501	20, 72, 144, 156
Tenmile Creek	IL_DZZS	0713000117	11	3	8.28	X582, X583, X585, X590	N/A	N/A
Tenmile Creek	IL_EIH-01	0713000904	22	2	18.9	F582, X583, X585, F590	N/A	N/A
Terry Creek	IL_FD	0712000118	10	3	6.97	X582, X583, X585, X590	N/A	N/A
The Discharge	IL_JA	0714010109	27	3	8.71	X582, X583, X585, X590	N/A	N/A
The Slough	IL_BEAA-01	0512011213	30	3	15.7	X582, X583, X585, X590	N/A	N/A
The Slough	IL_DSLA	0713000206	12	3	2.56	X582, X583, X585, X590	N/A	N/A

Appendix B-2. Specific Assessment Information for Streams, 2016.

Legend

Support Code	Use Support Level
F	Fully Supporting
N	Not Supporting
I	Insufficient Information
X	Not Assessed

Use ID	Use Description
582	Aquatic Life
583	Fish Consumption
584	Public and Food Processing Water Supplies
585	Primary Contact
586	Secondary Contact
587	Indigenous Aquatic Life
590	Aesthetic Quality

Cause ID	Description
N/A	No Cause Identified
79	Aldrin
84	Alteration in stream-side or littoral vegetative covers
85	Alterations in wetland habitats
91	Ammonia (Un-ionized)
96	Arsenic
99	Atrazine
104	Barium
123	Boron
127	Cadmium
137	Chlordane
138	Chloride
139	Chlorine
154	Chromium (total)
160	Color
163	Copper
177	DDT
181	Debris/Floatables/Trash
198	Dieldrin
203	Dioxin (including 2,3,7,8-TCDD)
213	Endrin
228	Fish-Passage Barrier
229	Fish Kills
234	Fluoride
244	Heptachlor
246	Hexachlorobenzene
260	Iron
267	Lead
268	Lindane
270	Low flow alterations
273	Manganese
274	Mercury
277	Methoxychlor

Cause ID	Description
301	Nickel
308	Ammonia (Total)
313	Nonnative Fish, Shellfish, or Zooplankton
317	Oil and Grease
319	Other flow regime alterations
322	Oxygen, Dissolved
339	Phenols
348	Polychlorinated biphenyls
371	Sedimentation/Siltation
375	Silver
376	Simazine
385	Sulfates
388	Temperature, water
390	Terbufos
399	Total Dissolved Solids
400	Fecal Coliform
403	Total Suspended Solids (TSS)
413	Turbidity
423	Zinc
441	pH
452	Nitrogen, Nitrate
462	Phosphorus (Total)
463	Cause Unknown
471	Bottom Deposits
478	Aquatic Plants (Macrophytes)
479	Aquatic Algae
480	Petroleum Hydrocarbons
500	Changes in Stream Depth and Velocity Patterns
501	Loss of Instream Cover
502	Sludge
519	Visible Oil
520	Odor
521	Ethanol

Appendix B-2. Specific Assessment Information for Streams, 2016.

Legend

Source ID	Description
N/A	No Source Identified
2	Acid Mine Drainage
4	Animal Feeding Operations (NPS)
10	Atmospheric Deposition - Toxics
20	Channelization
23	Combined Sewer Overflows
28	Contaminated Sediments
36	Drainage/Filling/Loss of Wetlands
37	Dredge Mining
38	Dredging (E.g., for Navigation Channels)
45	Golf Courses
49	Highway/Road/Bridge Runoff (Non-construction Related)
50	Highways, Roads, Bridges, Infrastructure (New Construction)
56	Impacts from Abandoned Mine Lands (Inactive)
58	Impacts from Hydrostructure Flow Regulation/modification
61	Industrial Land Treatment
62	Industrial Point Source Discharge
66	Irrigated Crop Production
69	Landfills
72	Loss of Riparian Habitat
73	Managed Pasture Grazing
82	Mine Tailings
84	Municipal (Urbanized High Density Area)
85	Municipal Point Source Discharges
87	Non-irrigated Crop Production
92	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)

Source ID	Description
95	Other Recreational Pollution Sources
102	Petroleum/natural Gas Activities
109	Rcra Hazardous Waste Sites
115	Sanitary Sewer Overflows (Collection System Failures)
119	Silviculture Harvesting
122	Site Clearance (Land Development or Redevelopment)
124	Spills from Trucks or Trains
125	Streambank Modifications/destabilization
126	Subsurface (Hardrock) Mining
127	Surface Mining
130	Unpermitted Discharge (Domestic Wastes)
132	Upstream Impoundments (e.g., Pl-566 NRCS Structures)
135	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)
140	Source Unknown
142	Dam or Impoundment
143	Livestock (Grazing or Feeding Operations)
144	Crop Production (Crop Land or Dry Land)
149	Sediment Resuspension (Contaminated Sediment)
155	Natural Sources
156	Agriculture
157	Habitat Modification - other than Hydromodification
160	Inappropriate Waste Disposal
161	Pesticide Application
177	Urban Runoff/Storm Sewers
178	Coal Mining (Subsurface)
181	Runoff from Forest/Grassland/Parkland

Appendix B-2. Specific Assessment Information for Streams, 2016.

Name	Assessment Unit ID	10-Digit HUC	IEPA Basin	Cat.	Size (miles)	Use Attainment	Causes	Sources
Stony Creek	IL_DTFAA	0712000701	4	3	5.55	X582, X583, X585, X586, X590	N/A	N/A
Stony Creek	IL_DGF	0713001010	17	3	11.19	X582, X583, X585, X586, X590	N/A	N/A
Stony Creek-East	IL_HJ	0712000304	1	3	4.13	X582, X583, X585, X586, X590	N/A	N/A
Stony Creek-West	IL_HG	0712000304	1	3	5.92	X582, X583, X585, X586, X590	N/A	N/A
Stookey Creek	IL_JMAABA-C1	0714010105	27	5	1.17	N582, X583, X585, X586, X590	84, 462	125, 85, 144, 177
Storckman Creek	IL_BZKC	0512011301	31	3	4.25	X582, X583, X585, X586, X590	N/A	N/A
Straddle Creek	IL_MJBA-01	0706000509	9	5	11.91	N582, X583, X585, X586, X590	84, 462	20, 143, 144
Strawn Creek	IL_DZL	0713000113	11	3	12.33	X582, X583, X585, X586, X590	N/A	N/A
Stringtown Branch	IL_OTE	0714020106	23	3	8.43	X582, X583, X585, X586, X590	N/A	N/A
Suck Creek	IL_OZZC-01	0714020206	24	3	10.87	X582, X583, X585, X586, X590	N/A	N/A
Sugar Camp Creek	IL_JQIA	0714010101	27	3	2.43	X582, X583, X585, X586, X590	N/A	N/A
Sugar Camp Creek	IL_NHH	0714010604	26	2	14.87	F582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_BPKK-01	0512010905	29	3	13.89	X582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_BF-01	0512011114	30	5	4.84	N582, X583, N585, X586, N590	138, 403, 462, 400, 480, 520	62, 85, 177, 20, 72, 156, 140
Sugar Creek	IL_BF-22	0512011114	30	3	9.46	X582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_BDA	0512011303	31	3	3.32	X582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_BCEB	0512011304	31	3	2.82	X582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_CJB	0512011405	31	3	12.96	X582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_CHD	0512011406	31	3	11.2	X582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_CG	0512011408	31	2	14.12	F582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_AJD-15	0514020308	32	4C	12.12	N582, X583, X585, X586, F590	228	72, 132, 144, 156
Sugar Creek	IL_ATHG-01	0514020401	32	4A	4.24	N582, X583, F585, F586, X590	84, 127, 260, 273, 301, 322, 385, 403, 423, 441, 462	2, 82, 127, 140
Sugar Creek	IL_ATHG-02	0514020401	32	5	11.86	N582, X583, X585, X586, F590	322	140, 155
Sugar Creek	IL_ATHG-05	0514020401	32	4A	0.92	F582, X583, N585, X586, X590	400	N/A
Sugar Creek	IL_ATHG-07	0514020401	32	2	7.46	F582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_PHB-01	0709000507	6	2	14.71	F582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_FLI-02	0712000207	10	5	23.65	F582, N583, N585, X586, F590	274, 400	10, 140
Sugar Creek	IL_FLI-03	0712000207	10	5	15.11	N582, N583, N585, X586, F590	84, 500, 274, 400	20, 10, 140
Sugar Creek	IL_DH-01	0713000309	13	5	42.55	F582, X583, N585, X586, F590	400	140
Sugar Creek	IL_DJJA-02	0713000505	15	3	6.29	X582, X583, X585, X586, X590	N/A	N/A
Sugar Creek	IL_EOA-01	0713000707	20	5	4.04	N582, X583, X586, X590	123	62
Sugar Creek	IL_EOA-04	0713000707	20	5	34.28	N582, X583, X585, X586, F590	322, 462	140, 85, 144

Appendix B-2. Specific Assessment Information for Streams, 2014.

Legend

Support Code	Use Support Level
F	Fully Supporting
N	Not Supporting
I	Insufficient Information
X	Not Assessed

Use ID	Use Description
582	Aquatic Life
583	Fish Consumption
584	Public and Food Processing Water Supplies
585	Primary Contact
586	Secondary Contact
587	Indigenous Aquatic Life
590	Aesthetic Quality

Cause ID	Description
N/A	No Cause Identified
1	.alpha.-BHC
34	2,4-D
79	Aldrin
84	Alteration in stream-side or littoral vegetative covers
85	Alterations in wetland habitats
91	Ammonia (Un-ionized)
96	Arsenic
99	Atrazine
104	Barium
123	Boron
127	Cadmium
137	Chlordane
138	Chloride
139	Chlorine
154	Chromium (total)
160	Color
163	Copper
168	Cyanide
177	DDT
198	Dieldrin
203	Dioxin (including 2,3,7,8-TCDD)
213	Endrin
228	Fish-Passage Barrier
229	Fish Kills
234	Fluoride
244	Heptachlor
246	Hexachlorobenzene
260	Iron
267	Lead
268	Lindane
270	Low flow alterations
273	Manganese
274	Mercury

Cause ID	Description
277	Methoxychlor
301	Nickel
308	Ammonia (Total)
313	Nonnative Fish, Shellfish, or Zooplankton
317	Oil and Grease
319	Other flow regime alterations
322	Oxygen, Dissolved
339	Phenols
348	Polychlorinated biphenyls
371	Sedimentation/Siltation
375	Silver
376	Simazine
385	Sulfates
388	Temperature, water
390	Terbufos
399	Total Dissolved Solids
400	Fecal Coliform
403	Total Suspended Solids (TSS)
413	Turbidity
423	Zinc
441	pH
452	Nitrogen, Nitrate
462	Phosphorus (Total)
463	Cause Unknown
471	Bottom Deposits
478	Aquatic Plants (Macrophytes)
479	Aquatic Algae
500	Changes in Stream Depth and Velocity Patterns
501	Loss of Instream Cover
502	Sludge
519	Visible Oil
520	Odor
521	Ethanol

Appendix B-2. Specific Assessment Information for Streams, 2014.

Legend

Source ID	Description
N/A	No Source Identified
2	Acid Mine Drainage
4	Animal Feeding Operations (NPS)
10	Atmospheric Deposition - Toxics
20	Channelization
23	Combined Sewer Overflows
28	Contaminated Sediments
36	Drainage/Filling/Loss of Wetlands
37	Dredge Mining
38	Dredging (E.g., for Navigation Channels)
45	Golf Courses
49	Highway/Road/Bridge Runoff (Non-construction Related)
50	Highways, Roads, Bridges, Infrastructure (New Construction)
56	Impacts from Abandoned Mine Lands (Inactive)
58	Impacts from Hydrostructure Flow Regulation/modification
61	Industrial Land Treatment
62	Industrial Point Source Discharge
66	Irrigated Crop Production
69	Landfills
72	Loss of Riparian Habitat
73	Managed Pasture Grazing
82	Mine Tailings
84	Municipal (Urbanized High Density Area)
85	Municipal Point Source Discharges
87	Non-irrigated Crop Production

Source ID	Description
92	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
95	Other Recreational Pollution Sources
102	Petroleum/natural Gas Activities
115	Sanitary Sewer Overflows (Collection System Failures)
122	Site Clearance (Land Development or Redevelopment)
124	Spills from Trucks or Trains
125	Streambank Modifications/destabilization
126	Subsurface (Hardrock) Mining
127	Surface Mining
130	Unpermitted Discharge (Domestic Wastes)
132	Upstream Impoundments (e.g., Pl-566 NRCS Structures)
135	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)
140	Source Unknown
142	Dam or Impoundment
143	Livestock (Grazing or Feeding Operations)
144	Crop Production (Crop Land or Dry Land)
149	Sediment Resuspension (Contaminated Sediment)
155	Natural Sources
156	Agriculture
157	Habitat Modification - other than Hydromodification
161	Pesticide Application
177	Urban Runoff/Storm Sewers
178	Coal Mining (Subsurface)
181	Runoff from Forest/Grassland/Parkland

Appendix B-2. Specific Assessment Information for Streams, 2014.

Name	Assessment Unit ID	10-Digit HUC	IEPA Basin	Cat.	Size (miles)	Use Attainment	Causes	Sources
Sugar Cr.	IL_ATHG-07	0514020401	32	2	7.46	F582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_ATHG-05	0514020401	32	4A	0.92	F582, X583, N585, X586, X590	400	N/A
Sugar Cr.	IL_OPABA	0714020201	24	3	6.26	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_CHD	0512011406	31	3	11.2	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_EID-04	0713000907	22	2	9.92	F582, X583, X586, X590	N/A	N/A
Sugar Cr.	IL_BM-C2	0512011105	30	5	2.18	N582, X583, X585, X586, X590	319, 322, 371, 462	58, 85
Sugar Cr.	IL_BM-A1	0512011105	30	3	1.11	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_BM-02	0512011105	30	2	14.17	F582, X583, X586, F590	N/A	N/A
Sugar Cr.	IL_BM	0512011105	30	3	4.73	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_EID-07	0713000907	22	5	13.7	N582, X583, X585, X586, X590	322	140
Sugar Cr.	IL_NZP	0714010607	26	3	3.03	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_CG	0512011408	31	2	14.12	F582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_EID-C1	0713000907	22	5	23.91	N582, X583, X585, X586, X590	462, 501	85, 20
Sugar Cr.	IL_EOA-06	0713000707	20	5	3.2	N582, X583, X585, X586, X590	84, 123, 462	132, 144, 62, 85
Sugar Cr.	IL_EID-C8	0713000907	22	2	12.66	F582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_BF-22	0512011114	30	3	9.46	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_BF-01	0512011114	30	5	4.84	N582, X583, N585, X586, X590	138, 322, 403, 462, 400	62, 85, 177, 140
Sugar Cr.	IL_CJB	0512011405	31	3	12.96	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_EOA-01	0713000707	20	5	4.04	N582, X583, X586, X590	123	62
Sugar Cr.	IL_AJD-15	0514020308	32	4C	12.12	N582, X583, X585, X586, F590	228	72, 132, 144, 156
Sugar Cr.	IL_EOA-04	0713000707	20	5	34.28	N582, X583, X585, X586, X590	462	85, 144
Sugar Cr.	IL_JQJ	0714010101	27	3	3.25	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr. Central	IL_BI	0512011111	30	3	7.61	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr. South	IL_BZW	0512011117	30	3	7.29	X582, X583, X585, X586, X590	N/A	N/A
Sugar Fk.	IL_ODLA-01	0714020404	25	5	18.56	N582, X583, X585, X586, X590	273, 322	4, 66, 102, 143, 156
Sugar R.	IL_PWB-03	0709000408	7	5	4.57	F582, N583, X585, X586, X590	348	140
Sugar R.	IL_PWB-01	0709000408	7	5	5.65	F582, N583, X585, X586, X590	348	140
Sugar Run	IL_GF-01	0712000409	2	5	7.32	N582, X583, X585, X586, X590	96, 273, 322, 371, 441	28, 177, 122, 144
Sullivan Branch	IL_NHJ	0714010604	26	3	6.56	X582, X583, X585, X586, X590	N/A	N/A
Sulphur Branch	IL_OJFA	0714020208	24	3	2.69	X582, X583, X585, X586, X590	N/A	N/A
Sumner Cr.	IL_PWH-02	0709000314	7	2	12.97	F582, X583, X585, X586, X590	N/A	N/A
Sunfish Slough	IL_MF	0708010102	9	3	0.98	X582, X583, X585, X586, X590	N/A	N/A
Susan Branch	IL_CHC	0512011406	31	3	2.26	X582, X583, X585, X586, X590	N/A	N/A
Sutphens Run	IL_DTAC	0712000705	4	2	12.98	F582, X583, X585, X586, X590	N/A	N/A
Sutton Cr.	IL_CAZB	0512011502	31	3	7.5	X582, X583, X585, X586, X590	N/A	N/A

Appendix B-2. Specific Assessment Information for Streams, 2012.

Legend

Support Code	Use Support Level
F	Fully Supporting
N	Not Supporting
I	Insufficient Information
X	Not Assessed

Use ID	Use Description
582	Aquatic Life
583	Fish Consumption
584	Public and Food Processing Water Supplies
585	Primary Contact
586	Secondary Contact
587	Indigenous Aquatic Life
590	Aesthetic Quality

Cause ID	Description
N/A	No Cause Identified
1	.alpha.-BHC
34	2,4-D
79	Aldrin
84	Alteration in stream-side or littoral vegetative covers
91	Ammonia (Un-ionized)
96	Arsenic
99	Atrazine
104	Barium
123	Boron
127	Cadmium
137	Chlordane
138	Chloride
139	Chlorine
154	Chromium (total)
160	Color
163	Copper
168	Cyanide
177	DDT
198	Dieldrin
203	Dioxin (including 2,3,7,8-TCDD)
213	Endrin
228	Fish-Passage Barrier
229	Fish Kills
234	Fluoride
244	Heptachlor
246	Hexachlorobenzene
260	Iron
267	Lead
268	Lindane
270	Low flow alterations
273	Manganese
274	Mercury

Cause ID	Description
277	Methoxychlor
301	Nickel
308	Ammonia (Total)
313	Nonnative Fish, Shellfish, or Zooplankton
317	Oil and Grease
319	Other flow regime alterations
322	Oxygen, Dissolved
339	Phenols
348	Polychlorinated biphenyls
371	Sedimentation/Siltation
375	Silver
385	Sulfates
388	Temperature, water
390	Terbufos
399	Total Dissolved Solids
400	Fecal Coliform
403	Total Suspended Solids (TSS)
413	Turbidity
423	Zinc
441	pH
452	Nitrogen, Nitrate
462	Phosphorus (Total)
463	Cause Unknown
471	Bottom Deposits
478	Aquatic Plants (Macrophytes)
479	Aquatic Algae
500	Changes in Stream Depth and Velocity Patterns
501	Loss of Instream Cover
502	Sludge
519	Visible Oil
520	Odor
521	Ethanol

Appendix B-2. Specific Assessment Information for Streams, 2012.

Legend

Source ID	Description
N/A	No Source Identified
2	Acid Mine Drainage
4	Animal Feeding Operations (NPS)
10	Atmospheric Deposition - Toxics
20	Channelization
23	Combined Sewer Overflows
28	Contaminated Sediments
36	Drainage/Filling/Loss of Wetlands
37	Dredge Mining
38	Dredging (E.g., for Navigation Channels)
45	Golf Courses
49	Highway/Road/Bridge Runoff (Non-construction Related)
50	Highways, Roads, Bridges, Infrastructure (New Construction)
56	Impacts from Abandoned Mine Lands (Inactive)
58	Impacts from Hydrostructure Flow Regulation/modification
61	Industrial Land Treatment
62	Industrial Point Source Discharge
66	Irrigated Crop Production
69	Landfills
72	Loss of Riparian Habitat
73	Managed Pasture Grazing
82	Mine Tailings
84	Municipal (Urbanized High Density Area)
85	Municipal Point Source Discharges

Source ID	Description
87	Non-irrigated Crop Production
92	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)
95	Other Recreational Pollution Sources
102	Petroleum/natural Gas Activities
115	Sanitary Sewer Overflows (Collection System Failures)
122	Site Clearance (Land Development or Redevelopment)
124	Spills from Trucks or Trains
125	Streambank Modifications/destabilization
126	Subsurface (Hardrock) Mining
127	Surface Mining
130	Unpermitted Discharge (Domestic Wastes)
132	Upstream Impoundments (e.g., Pl-566 NRCS Structures)
135	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)
140	Source Unknown
142	Dam or Impoundment
143	Livestock (Grazing or Feeding Operations)
144	Crop Production (Crop Land or Dry Land)
155	Natural Sources
156	Agriculture
157	Habitat Modification - other than Hydromodification
161	Pesticide Application
177	Urban Runoff/Storm Sewers
178	Coal Mining (Subsurface)
181	Runoff from Forest/Grassland/Parkland

Appendix B-2. Specific Assessment Information for Streams, 2012.

Name	Assessment Unit ID	10-Digit HUC	IEPA Basin	Cat.	Size (miles)	Use Attainment	Causes	Sources
Sugar Cr.	IL_CHD	0512011406	31	3	11.2	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_CJB	0512011405	31	3	12.96	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_DAB	0713001206	18	3	4.95	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_DAZO	0713001201	18	3	6.88	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_DH-01	0713000309	13	5	42.55	F582, X583, N585, X586, X590	400	140
Sugar Cr.	IL_DJJA-02	0713000505	15	3	4.82	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_EID-04	0713000907	22	2	9.92	F582, X583, X586, X590	N/A	N/A
Sugar Cr.	IL_EID-07	0713000907	22	5	13.7	N582, X583, X585, X586, X590	322	140
Sugar Cr.	IL_EID-C1	0713000907	22	5	23.91	N582, X583, X585, X586, X590	462, 501	85, 20
Sugar Cr.	IL_EID-C8	0713000907	22	2	12.66	F582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_EOA-01	0713000707	20	5	4.04	N582, X583, X586, X590	123	62
Sugar Cr.	IL_EOA-04	0713000707	20	5	34.28	N582, X583, X585, X586, X590	462	85, 144
Sugar Cr.	IL_EOA-06	0713000707	20	5	3.2	N582, X583, X585, X586, X590	84, 123, 462	132, 144, 62, 85
Sugar Cr.	IL_FLI-02	0712000207	10	5	23.65	F582, N583, N585, X586, F590	274, 400	10, 140
Sugar Cr.	IL_FLI-03	0712000207	10	5	15.11	N582, N583, N585, X586, F590	84, 500, 274, 400	20, 10, 140
Sugar Cr.	IL_JQJ	0714010101	27	3	3.25	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_NAJ	0714010612	26	3	4.2	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_NCNA	0714010610	26	3	3.67	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_NCQ	0714010610	26	3	6.02	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_NDJA	0714010608	26	3	5.51	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_NZP	0714010607	26	3	3.03	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_OCG	0714020406	25	3	5.23	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_OH-01	0714020401	25	5	23.91	N582, X583, N585, X586, X590	84, 273, 322, 462, 500, 400	20, 144, 85, 177, 140
Sugar Cr.	IL_OH-05	0714020401	25	5	5.79	N582, X583, X585, X586, X590	84, 213, 371, 462	20, 85, 144
Sugar Cr.	IL_OH-HL-D1	0714020401	25	5	11.89	N582, X583, X585, X586, X590	322, 462	140, 144
Sugar Cr.	IL_OPABA	0714020201	24	3	6.26	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr.	IL_PHB-01	0709000507	6	2	14.71	F582, X583, X585, X586, X590	N/A	N/A
Sugar Cr. Central	IL_BI	0512011111	30	3	7.61	X582, X583, X585, X586, X590	N/A	N/A
Sugar Cr. South	IL_BZW	0512011117	30	3	7.29	X582, X583, X585, X586, X590	N/A	N/A
Sugar Fk.	IL_ODLA-01	0714020404	25	5	18.56	N582, X583, X585, X586, X590	273, 322	4, 66, 102, 143, 156
Sugar R.	IL_PWB-01	0709000408	7	5	5.65	F582, N583, X585, X586, X590	348	140
Sugar R.	IL_PWB-03	0709000408	7	5	4.57	F582, N583, X585, X586, X590	348	140
Sugar Run	IL_GF-01	0712000409	2	5	7.32	N582, X583, X585, X586, X590	96, 273, 322, 371, 441	28, 177, 122, 144
Sullivan Branch	IL_NHJ	0714010604	26	3	6.56	X582, X583, X585, X586, X590	N/A	N/A
Sulphur Branch	IL_OJFA	0714020208	24	3	2.69	X582, X583, X585, X586, X590	N/A	N/A
Sumner Cr.	IL_PWH-02	0709000314	7	2	12.97	F582, X583, X585, X586, X590	N/A	N/A

Water Name	Water ID	HUC- 10	Miles/Acres	Designated Use	Impairement Listing	TMDL Status
Stookey Cr.	IL_JMAABA-C1	0714010105	1.16	Aquatic Life	Phosphorus (Total)	
STOREY	IL_RLB	0708010410	132.00	Aesthetic Quality	Total Suspended Solids (TSS), Phosphorus (Total)	
STOREY	IL_RLB	0708010410	132.00	Fish Consumption	Mercury	
Straddle Cr.	IL_MJBA-01	0706000509	11.87	Aquatic Life	Phosphorus (Total)	
STREATOR RESERVOIR	IL_WDA	0713000208	25.00	Aesthetic Quality	Total Suspended Solids (TSS), Phosphorus (Total)	
Sugar Cr.	IL_ATHG-01	0514020401	4.21	Aquatic Life	Chloride	
Sugar Cr.	IL_BF-01	0512011114	4.81	Aquatic Life	Chloride, Fluoride, Manganese, Total Suspended Solids (TSS), Phosphorus (Total)	
Sugar Cr.	IL_BF-01	0512011114	4.81	Primary Contact Recreation	Fecal Coliform	
Sugar Cr.	IL_BM-C2	0512011105	2.16	Aquatic Life	Sedimentation/Siltation, Phosphorus (Total)	
Sugar Cr.	IL_DH-01	0713000309	42.33	Primary Contact Recreation	Fecal Coliform	
Sugar Cr.	IL_EID-07	0713000907	13.63	Aquatic Life	Cause Unknown	
Sugar Cr.	IL_EID-C1	0713000907	23.79	Aquatic Life	Phosphorus (Total)	
Sugar Cr.	IL_EOA-01	0713000707	4.02	Aquatic Life	Boron	
Sugar Cr.	IL_EOA-04	0713000707	34.10	Aquatic Life	Phosphorus (Total)	
Sugar Cr.	IL_EOA-06	0713000707	3.18	Aquatic Life	Boron, Phosphorus (Total)	
Sugar Cr.	IL_FLI-02	0712000207	23.52	Fish Consumption	Mercury	
Sugar Cr.	IL_FLI-03	0712000207	15.03	Fish Consumption	Mercury	
Sugar Cr.	IL_OH-01	0714020401	23.78	Aquatic Life	Manganese, Phosphorus (Total)	
Sugar Cr.	IL_OH-01	0714020401	23.78	Primary Contact Recreation	Fecal Coliform	(TMDL Ongoing)
Sugar Cr.	IL_OH-05	0714020401	5.76	Aquatic Life	Endrin, Sedimentation/Siltation, Phosphorus (Total)	
Sugar Cr.	IL_OH-HL-D1	0714020401	11.82	Aquatic Life	Phosphorus (Total)	
SUGAR CREEK LAKE	IL_RAZO	0514020308	94.00	Aesthetic Quality	Total Suspended Solids (TSS)	
Sugar Fk.	IL_ODLA-01	0714020404	18.46	Aquatic Life	Manganese, Cause Unknown	
Sugar R.	IL_PWB-01	0709000408	5.63	Fish Consumption	Polychlorinated biphenyls	
Sugar R.	IL_PWB-03	0709000408	4.56	Fish Consumption	Polychlorinated biphenyls	
Sugar Run	IL_GF-01	0712000409	7.29	Aquatic Life	Arsenic, Manganese, Sedimentation/Siltation, pH	
SULLIVAN LAKE	IL_RTZL	0712000610	58.00	Aesthetic Quality	Cause Unknown	