



**CITY WATER, LIGHT AND POWER**  
**CITY OF SPRINGFIELD, ILLINOIS**  
**MISTY BUSCHER, MAYOR**  
**DOUG BROWN, CHIEF UTILITY ENGINEER**

October 30, 2024

Mr. Darin LeCrone, P.E.  
Manager, Permit Section  
Division of Water Pollution Control  
1021 North Grand Avenue East  
PO Box 19276  
Springfield, IL 62794-9276

Re: City Water, Light and Power – Lakeside and Dallman Ash Ponds  
Log No. 2021-100001  
Bureau ID #W1671200052  
Coal Combustion Residuals Surface Impoundment Operating and Construction Permit  
Application Review Letter  
Supplemental Response

Dear Mr. LeCrone:

Provided herein are supplemental responses and supporting documentation to address comments in the Coal Combustion Residuals (CCR) Surface Impoundment Operating and Construction Permit Application Review Letter dated October 10, 2023 and the Comments on Statistical Methods Proposed in the Initial Operating Permit dated January 17, 2024.

CWLP provided our initial response to the referenced Illinois EPA application review letters on September 9, 2024. At that time, analytical data of porewater from monitoring wells within the impoundments to support waste characterization and analytical data supporting calculation of a background and proposed Groundwater Protection Standard for arsenic were not available.

The porewater analytical results are provided in Attachment A. These analytical results represent samples collected from the completed monitoring wells within Lakeside Ash Pond identified as L1, L3, L4 and L5 as well as the completed monitoring wells within Dallman Ash Ponds identified as D1, D2, D3 and D4. The boring location map, boring logs and well completion reports for these wells were originally provided in the Hydrogeologic Report, Groundwater Monitoring Program and Statistical Procedures provided as Appendix C of Attachment A in the September 9, 2024 response. The information provided in Attachment A herein is intended to supplement Appendix B and Appendix C of the September 9, 2024 response.

At the time of the September 9, 2024 response, CWLP was in the process of calculating a background for arsenic based on eight consecutive sampling events between July 2023 and August 2024. The background value calculations and proposed Groundwater Protection Standard for arsenic and accompanying laboratory analytical reports are provided in Attachment B. These background calculations and laboratory reports are intended to supplement Appendix H and I, respectively of the

Hydrogeologic Report, Groundwater Monitoring Program and Statistical Procedures originally included in Appendix C of Attachment A of the September 9, 2024 response.

Application forms and certifications were provided in the original Operating Permit Application received by the Illinois EPA on October 28, 2021 and the Closure Construction Permit Application received by the Illinois EPA on February 1, 2022. The certifications required per 35 IAC 845.630(g) Groundwater Monitoring Systems and 845.640(f)(2) Statistical Method selection were provided in the September 9, 2024 response.

Documents cited in this response previously submitted separately to Illinois EPA as well as cited documents posted to our public Illinois CCR Rule Compliance and Data Information web site at [www.cwlp.com/IllinoisCCRCCompliance.aspx](http://www.cwlp.com/IllinoisCCRCCompliance.aspx) are incorporated by reference in this response and are intended to amend the original applications.

If you have any questions or need additional information please contact Eric Staley of my staff at 217-757-8610 (ext. 1102).

Sincerely,



PJ Becker  
Environmental Health and Safety Manager

Cc: Andrews Engineering

**ATTACHMENT A**

Porewater Sample Analytical Results

August 16, 2024

Colleen Grey  
Andrews Engineering, Inc.  
3300 Ginger Creek Drive  
Springfield, IL 62711-7233  
TEL: (217) 787-2334  
FAX: (217) 787-9495



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE: CWLP CCR GW**

**WorkOrder: 24071773**

Dear Colleen Grey:

TEKLAB, INC received 8 samples on 7/22/2024 12:48:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
[SHennessy@teklabinc.com](mailto:SHennessy@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

**Client:** Andrews Engineering, Inc.

**Work Order:** 24071773

**Client Project:** CWLP CCR GW

**Report Date:** 16-Aug-24

**This reporting package includes the following:**

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Chain of Custody	Appended

**Client:** Andrews Engineering, Inc.

**Work Order:** 24071773

**Client Project:** CWLP CCR GW

**Report Date:** 16-Aug-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count ( > 200 CFU )

**Client:** Andrews Engineering, Inc.

**Work Order:** 24071773

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**Report Date:** 16-Aug-24

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### Qualifiers

- |   |  |
|---|--|
| # - Unknown hydrocarbon                               | B - Analyte detected in associated Method Blank              |
| C - RL shown is a Client Requested Quantitation Limit | E - Value above quantitation range                           |
| H - Holding times exceeded                            | I - Associated internal standard was outside method criteria |
| J - Analyte detected below quantitation limits        | M - Manual Integration used to determine area response       |
| ND - Not Detected at the Reporting Limit              | R - RPD outside accepted recovery limits                     |
| S - Spike Recovery outside recovery limits            | T - TIC(Tentatively identified compound)                     |
| X - Value exceeds Maximum Contaminant Level           |  |



# Case Narrative

<http://www.teklabinc.com/>

**Client:** Andrews Engineering, Inc.

**Work Order:** 24071773

**Client Project:** CWLP CCR GW

**Report Date:** 16-Aug-24

**Cooler Receipt Temp:** 1.3 °C

Radium 226 and Radium 228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

## Locations

### Collinsville

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

### Collinsville Air

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

### Springfield

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

### Chicago

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

### Kansas City

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

**Client:** Andrews Engineering, Inc.

**Work Order:** 24071773

**Client Project:** CWLP CCR GW

**Report Date:** 16-Aug-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-001

Client Sample ID: D-1

Matrix: GROUNDWATER

Collection Date: 07/18/2024 14:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		2120	mg/L	2.5	07/23/2024 9:09	R350690
<b>SW-846 9036 (DISSOLVED)</b>									
Sulfate	NELAP	307	500		1150	mg/L	50	07/26/2024 22:16	R350878
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	307	500		1120	mg/L	50	07/26/2024 23:25	R350878
<b>SW-846 9040B, LABORATORY ANALYZED</b>									
Lab pH	NELAP	0	1.00	H	10.1		1	07/23/2024 12:34	R350588
<b>SW-846 9214 (DISSOLVED)</b>									
Fluoride	NELAP	0.04	0.10	J	0.06	mg/L	1	07/23/2024 9:59	R350609
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10	J	0.07	mg/L	1	07/23/2024 10:25	R350609
<b>SW-846 9251 (DISSOLVED)</b>									
Chloride	NELAP	1	4		46	mg/L	1	07/26/2024 11:39	R350886
<b>SW-846 9251 (TOTAL)</b>									
Chloride	NELAP	1	4		48	mg/L	1	07/26/2024 13:28	R350886
<b>SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)</b>									
Barium	NELAP	0.0007	0.0025		0.0541	mg/L	1	07/23/2024 10:58	226024
Beryllium	NELAP	0.0002	0.0005		< 0.0005	mg/L	1	07/23/2024 10:58	226024
Boron	NELAP	0.0900	0.200		30.7	mg/L	10	07/23/2024 15:39	226024
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 10:58	226024
Chromium	NELAP	0.0028	0.0050		< 0.0050	mg/L	1	07/23/2024 10:58	226024
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 10:58	226024
Lead	NELAP	0.0040	0.0075		< 0.0075	mg/L	1	07/23/2024 10:58	226024
Molybdenum	NELAP	0.0370	0.100		10.4	mg/L	10	07/23/2024 15:39	226024
Selenium	NELAP	0.017	0.040	J	0.032	mg/L	1	07/23/2024 10:58	226024
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.118	mg/L	1	07/23/2024 17:12	226025
Beryllium	NELAP	0.0002	0.0005		0.0020	mg/L	1	07/23/2024 17:12	226025
Boron	NELAP	0.0900	0.200		34.0	mg/L	10	07/25/2024 13:57	226025
Cadmium	NELAP	0.0005	0.0020	J	0.0016	mg/L	1	07/23/2024 17:12	226025
Chromium	NELAP	0.0028	0.0050		0.0277	mg/L	1	07/23/2024 17:12	226025
Cobalt	NELAP	0.0020	0.0050	J	0.0029	mg/L	1	07/23/2024 17:12	226025
Lead	NELAP	0.0040	0.0075		0.0415	mg/L	1	07/23/2024 17:12	226025
Molybdenum	NELAP	0.0370	0.100		11.7	mg/L	10	07/25/2024 13:57	226025
Selenium	NELAP	0.017	0.040	J	0.036	mg/L	1	07/23/2024 17:12	226025
<b>SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)</b>									
Antimony	NELAP	0.0008	0.0010		0.0025	mg/L	5	07/23/2024 17:06	226024
Arsenic	NELAP	0.0004	0.0010		0.0829	mg/L	5	07/23/2024 17:06	226024
Lithium	*	0.0015	0.0030		0.207	mg/L	5	07/23/2024 17:06	226024
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	07/23/2024 17:06	226024
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		0.0026	mg/L	5	07/25/2024 18:20	226025
Arsenic	NELAP	0.0004	0.0010		0.171	mg/L	5	07/24/2024 19:41	226025
Lithium	*	0.0015	0.0030		0.273	mg/L	5	07/24/2024 19:41	226025
Thallium	NELAP	0.0010	0.0020		0.0035	mg/L	5	07/24/2024 19:41	226025



## Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-001

Client Sample ID: D-1

Matrix: GROUNDWATER

Collection Date: 07/18/2024 14:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 7470A (DISSOLVED)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/23/2024 13:41	226026
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/23/2024 13:39	226026
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	08/13/2024 0:00	R351803
Radium-228	*	0	0		See Attached	pci/L	1	08/13/2024 0:00	R351803



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-002

Client Sample ID: D-2

Matrix: GROUNDWATER

Collection Date: 07/19/2024 10:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		3080	mg/L	2.5	07/24/2024 9:48	R350752
<b>SW-846 9036 (DISSOLVED)</b>									
Sulfate	NELAP	307	500		1640	mg/L	50	07/26/2024 22:21	R350878
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	307	500		1680	mg/L	50	07/26/2024 23:28	R350878
<b>SW-846 9040B, LABORATORY ANALYZED</b>									
Lab pH	NELAP	0	1.00	H	9.70		1	07/23/2024 10:17	R350588
<b>SW-846 9214 (DISSOLVED)</b>									
Fluoride	NELAP	0.04	0.10	J	0.09	mg/L	1	07/23/2024 10:01	R350609
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10	J	0.10	mg/L	1	07/23/2024 10:28	R350609
<b>SW-846 9251 (DISSOLVED)</b>									
Chloride	NELAP	5	40		67	mg/L	10	07/26/2024 11:52	R350886
<b>SW-846 9251 (TOTAL)</b>									
Chloride	NELAP	5	40		64	mg/L	10	07/29/2024 22:12	R350942
<b>SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)</b>									
Barium	NELAP	0.0007	0.0025		0.0376	mg/L	1	07/23/2024 13:52	226024
Beryllium	NELAP	0.0002	0.0005		< 0.0005	mg/L	1	07/23/2024 13:52	226024
Boron	NELAP	0.180	0.400		66.5	mg/L	20	07/25/2024 10:57	226024
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 13:52	226024
Chromium	NELAP	0.0028	0.0050		< 0.0050	mg/L	1	07/23/2024 13:52	226024
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 13:52	226024
Lead	NELAP	0.0040	0.0075		< 0.0075	mg/L	1	07/23/2024 13:52	226024
Molybdenum	NELAP	0.0037	0.0100		6.58	mg/L	1	07/23/2024 13:52	226024
Selenium	NELAP	0.017	0.040	J	0.036	mg/L	1	07/23/2024 13:52	226024
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0997	mg/L	1	07/23/2024 17:14	226025
Beryllium	NELAP	0.0002	0.0005		0.0035	mg/L	1	07/23/2024 17:14	226025
Boron	NELAP	0.180	0.400		73.2	mg/L	20	07/25/2024 13:58	226025
Cadmium	NELAP	0.0005	0.0020	J	0.0014	mg/L	1	07/23/2024 17:14	226025
Chromium	NELAP	0.0028	0.0050		0.0426	mg/L	1	07/23/2024 17:14	226025
Cobalt	NELAP	0.0020	0.0050	J	0.0029	mg/L	1	07/23/2024 17:14	226025
Lead	NELAP	0.0040	0.0075		0.0135	mg/L	1	07/23/2024 17:14	226025
Molybdenum	NELAP	0.0037	0.0100		7.04	mg/L	1	07/23/2024 17:14	226025
Selenium	NELAP	0.017	0.040	J	0.024	mg/L	1	07/23/2024 17:14	226025
<b>SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)</b>									
Antimony	NELAP	0.0008	0.0010		0.0044	mg/L	5	07/23/2024 17:11	226024
Arsenic	NELAP	0.0004	0.0010		0.111	mg/L	5	07/23/2024 17:11	226024
Lithium	*	0.0015	0.0030		0.0963	mg/L	5	07/23/2024 17:11	226024
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	07/23/2024 17:11	226024
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		0.0058	mg/L	5	07/25/2024 18:26	226025
Arsenic	NELAP	0.0004	0.0010		0.160	mg/L	5	07/24/2024 19:47	226025
Lithium	*	0.0015	0.0030		0.110	mg/L	5	07/24/2024 19:47	226025
Thallium	NELAP	0.0010	0.0020		0.0044	mg/L	5	07/24/2024 19:47	226025



## Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-002

Client Sample ID: D-2

Matrix: GROUNDWATER

Collection Date: 07/19/2024 10:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 7470A (DISSOLVED)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 9:29	226064
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/23/2024 13:44	226026
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	08/13/2024 0:00	R351803
Radium-228	*	0	0		See Attached	pci/L	1	08/13/2024 0:00	R351803



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-003

Client Sample ID: D-3

Matrix: GROUNDWATER

Collection Date: 07/19/2024 11:05

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		1720	mg/L	2.5	07/24/2024 9:48	R350752
<b>SW-846 9036 (DISSOLVED)</b>									
Sulfate	NELAP	307	500		860	mg/L	50	07/26/2024 22:24	R350878
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	307	500		838	mg/L	50	07/26/2024 23:33	R350878
<b>SW-846 9040B, LABORATORY ANALYZED</b>									
Lab pH	NELAP	0	1.00	H	9.89		1	07/23/2024 10:18	R350588
<b>SW-846 9214 (DISSOLVED)</b>									
Fluoride	NELAP	0.04	0.10		0.12	mg/L	1	07/23/2024 10:04	R350609
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.12	mg/L	1	07/23/2024 10:30	R350609
<b>SW-846 9251 (DISSOLVED)</b>									
Chloride	NELAP	1	4		45	mg/L	1	07/26/2024 12:11	R350886
<b>SW-846 9251 (TOTAL)</b>									
Chloride	NELAP	1	4		44	mg/L	1	07/29/2024 22:17	R350942
<b>SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)</b>									
Barium	NELAP	0.0007	0.0025		0.0676	mg/L	1	07/23/2024 13:53	226024
Beryllium	NELAP	0.0002	0.0005		< 0.0005	mg/L	1	07/23/2024 13:53	226024
Boron	NELAP	0.0900	0.200		28.3	mg/L	10	07/25/2024 10:59	226024
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 13:53	226024
Chromium	NELAP	0.0028	0.0050		< 0.0050	mg/L	1	07/23/2024 13:53	226024
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 13:53	226024
Lead	NELAP	0.0040	0.0075		< 0.0075	mg/L	1	07/23/2024 13:53	226024
Molybdenum	NELAP	0.0037	0.0100		2.78	mg/L	1	07/23/2024 13:53	226024
Selenium	NELAP	0.0170	0.0400		< 0.0400	mg/L	1	07/23/2024 13:53	226024
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0823	mg/L	1	07/23/2024 17:15	226025
Beryllium	NELAP	0.0002	0.0005		0.0010	mg/L	1	07/23/2024 17:15	226025
Boron	NELAP	0.0900	0.200		32.2	mg/L	10	07/25/2024 14:00	226025
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 17:15	226025
Chromium	NELAP	0.0028	0.0050		0.0121	mg/L	1	07/23/2024 17:15	226025
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 17:15	226025
Lead	NELAP	0.0040	0.0075	J	0.0046	mg/L	1	07/23/2024 17:15	226025
Molybdenum	NELAP	0.0037	0.0100		2.89	mg/L	1	07/23/2024 17:15	226025
Selenium	NELAP	0.017	0.040	J	0.028	mg/L	1	07/23/2024 17:15	226025
<b>SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)</b>									
Antimony	NELAP	0.0008	0.0010		0.0034	mg/L	5	07/23/2024 17:17	226024
Arsenic	NELAP	0.0004	0.0010		0.0797	mg/L	5	07/23/2024 17:17	226024
Lithium	*	0.0015	0.0030		0.117	mg/L	5	07/23/2024 17:17	226024
Thallium	NELAP	0.0010	0.0020		0.0021	mg/L	5	07/23/2024 17:17	226024
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		0.0047	mg/L	5	07/25/2024 18:55	226025
Arsenic	NELAP	0.0004	0.0010		0.104	mg/L	5	07/24/2024 20:55	226025
Lithium	*	0.0015	0.0030		0.110	mg/L	5	07/24/2024 20:55	226025
Thallium	NELAP	0.0010	0.0020		0.0030	mg/L	5	07/24/2024 20:55	226025



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-003

Client Sample ID: D-3

Matrix: GROUNDWATER

Collection Date: 07/19/2024 11:05

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 7470A (DISSOLVED)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 9:38	226064
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 9:36	226064
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	08/13/2024 0:00	R351803
Radium-228	*	0	0		See Attached	pci/L	1	08/13/2024 0:00	R351803



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-004

Client Sample ID: D-4

Matrix: GROUNDWATER

Collection Date: 07/19/2024 11:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		3920	mg/L	2.5	07/24/2024 9:49	R350752
<b>SW-846 9036 (DISSOLVED)</b>									
Sulfate	NELAP	614	1000		2140	mg/L	100	07/26/2024 22:42	R350878
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	614	1000		2150	mg/L	100	07/26/2024 23:35	R350878
<b>SW-846 9040B, LABORATORY ANALYZED</b>									
Lab pH	NELAP	0	1.00	H	10.2		1	07/23/2024 10:19	R350588
<b>SW-846 9214 (DISSOLVED)</b>									
Fluoride	NELAP	0.04	0.10	J	0.09	mg/L	1	07/23/2024 10:07	R350609
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.12	mg/L	1	07/23/2024 10:37	R350609
<b>SW-846 9251 (DISSOLVED)</b>									
Chloride	NELAP	5	40		177	mg/L	10	07/26/2024 12:24	R350886
<b>SW-846 9251 (TOTAL)</b>									
Chloride	NELAP	5	40		175	mg/L	10	07/29/2024 22:20	R350942
<b>SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)</b>									
Barium	NELAP	0.0007	0.0025		0.0843	mg/L	1	07/23/2024 13:55	226024
Beryllium	NELAP	0.0002	0.0005		< 0.0005	mg/L	1	07/23/2024 13:55	226024
Boron	NELAP	0.180	0.400		58.3	mg/L	20	07/25/2024 11:00	226024
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 13:55	226024
Chromium	NELAP	0.0028	0.0050		< 0.0050	mg/L	1	07/23/2024 13:55	226024
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 13:55	226024
Lead	NELAP	0.0040	0.0075		< 0.0075	mg/L	1	07/23/2024 13:55	226024
Molybdenum	NELAP	0.0037	0.0100		3.61	mg/L	1	07/23/2024 13:55	226024
Selenium	NELAP	0.0170	0.0400		0.143	mg/L	1	07/23/2024 13:55	226024
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.186	mg/L	1	07/23/2024 17:17	226025
Beryllium	NELAP	0.0002	0.0005		0.0056	mg/L	1	07/23/2024 17:17	226025
Boron	NELAP	0.180	0.400		66.2	mg/L	20	07/25/2024 14:01	226025
Cadmium	NELAP	0.0005	0.0020		0.0035	mg/L	1	07/23/2024 17:17	226025
Chromium	NELAP	0.0028	0.0050		0.0645	mg/L	1	07/23/2024 17:17	226025
Cobalt	NELAP	0.0020	0.0050		0.0062	mg/L	1	07/23/2024 17:17	226025
Lead	NELAP	0.0040	0.0075		0.0262	mg/L	1	07/23/2024 17:17	226025
Molybdenum	NELAP	0.0037	0.0100		3.77	mg/L	1	07/23/2024 17:17	226025
Selenium	NELAP	0.0170	0.0400		0.158	mg/L	1	07/23/2024 17:17	226025
<b>SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)</b>									
Antimony	NELAP	0.0008	0.0010		0.0021	mg/L	5	07/23/2024 17:22	226024
Arsenic	NELAP	0.0004	0.0010		0.0231	mg/L	5	07/23/2024 17:22	226024
Lithium	*	0.0015	0.0030		0.261	mg/L	5	07/23/2024 17:22	226024
Thallium	NELAP	0.0010	0.0020	J	0.0017	mg/L	5	07/23/2024 17:22	226024
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		0.0059	mg/L	5	07/25/2024 19:00	226025
Arsenic	NELAP	0.0004	0.0010		0.0629	mg/L	5	07/24/2024 21:00	226025
Lithium	*	0.0015	0.0030		0.298	mg/L	5	07/24/2024 21:00	226025
Thallium	NELAP	0.0010	0.0020		0.0071	mg/L	5	07/24/2024 21:00	226025



## Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-004

Client Sample ID: D-4

Matrix: GROUNDWATER

Collection Date: 07/19/2024 11:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 7470A (DISSOLVED)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 9:42	226064
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 9:40	226064
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	08/13/2024 0:00	R351803
Radium-228	*	0	0		See Attached	pci/L	1	08/13/2024 0:00	R351803



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-005

Client Sample ID: L-1

Matrix: GROUNDWATER

Collection Date: 07/18/2024 11:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		3820	mg/L	2.5	07/23/2024 9:09	R350690
<b>SW-846 9036 (DISSOLVED)</b>									
Sulfate	NELAP	614	1000		1560	mg/L	100	07/26/2024 22:45	R350878
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	614	1000		1610	mg/L	100	07/26/2024 23:41	R350878
<b>SW-846 9040B, LABORATORY ANALYZED</b>									
Lab pH	NELAP	0	1.00	H	9.58		1	07/23/2024 12:36	R350588
<b>SW-846 9214 (DISSOLVED)</b>									
Fluoride	NELAP	0.04	0.10		0.10	mg/L	1	07/23/2024 10:09	R350609
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.11	mg/L	1	07/23/2024 10:39	R350609
<b>SW-846 9251 (DISSOLVED)</b>									
Chloride	NELAP	5	40		334	mg/L	10	07/26/2024 12:40	R350886
<b>SW-846 9251 (TOTAL)</b>									
Chloride	NELAP	10	80		316	mg/L	20	07/29/2024 22:49	R350942
<b>SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)</b>									
Barium	NELAP	0.0007	0.0025		0.130	mg/L	1	07/23/2024 13:56	226024
Beryllium	NELAP	0.0002	0.0005		< 0.0005	mg/L	1	07/23/2024 13:56	226024
Boron	NELAP	0.0900	0.200		30.7	mg/L	10	07/25/2024 11:02	226024
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 13:56	226024
Chromium	NELAP	0.0028	0.0050		< 0.0050	mg/L	1	07/23/2024 13:56	226024
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 13:56	226024
Lead	NELAP	0.0040	0.0075		< 0.0075	mg/L	1	07/23/2024 13:56	226024
Molybdenum	NELAP	0.0037	0.0100		0.0903	mg/L	1	07/23/2024 13:56	226024
Selenium	NELAP	0.0170	0.0400		< 0.0400	mg/L	1	07/23/2024 13:56	226024
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.161	mg/L	1	07/23/2024 17:19	226025
Beryllium	NELAP	0.0002	0.0005	J	0.0003	mg/L	1	07/23/2024 17:19	226025
Boron	NELAP	0.0900	0.200		33.4	mg/L	10	07/25/2024 14:03	226025
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 17:19	226025
Chromium	NELAP	0.0028	0.0050		0.0053	mg/L	1	07/23/2024 17:19	226025
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 17:19	226025
Lead	NELAP	0.0040	0.0075		< 0.0075	mg/L	1	07/23/2024 17:19	226025
Molybdenum	NELAP	0.0037	0.0100		0.0942	mg/L	1	07/23/2024 17:19	226025
Selenium	NELAP	0.017	0.040	J	0.026	mg/L	1	07/23/2024 17:19	226025
<b>SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)</b>									
Antimony	NELAP	0.0008	0.0010		< 0.0010	mg/L	5	07/23/2024 17:28	226024
Arsenic	NELAP	0.0004	0.0010		0.0076	mg/L	5	07/23/2024 17:28	226024
Lithium	*	0.0015	0.0030		0.0408	mg/L	5	07/23/2024 17:28	226024
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	07/23/2024 17:28	226024
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		0.0011	mg/L	5	07/25/2024 19:06	226025
Arsenic	NELAP	0.0004	0.0010		0.0139	mg/L	5	07/24/2024 21:06	226025
Lithium	*	0.0015	0.0030		0.0562	mg/L	5	07/24/2024 21:06	226025
Thallium	NELAP	0.0010	0.0020	J	0.0010	mg/L	5	07/24/2024 21:06	226025



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Andrews Engineering, Inc.

**Work Order:** 24071773

**Client Project:** CWLP CCR GW

**Report Date:** 16-Aug-24

**Lab ID:** 24071773-005

**Client Sample ID:** L-1

**Matrix:** GROUNDWATER

**Collection Date:** 07/18/2024 11:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 7470A (DISSOLVED)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 9:47	226064
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 9:45	226064
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	08/13/2024 0:00	R351803
Radium-228	*	0	0		See Attached	pci/L	1	08/13/2024 0:00	R351803



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-006

Client Sample ID: L-3

Matrix: GROUNDWATER

Collection Date: 07/19/2024 9:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		3640	mg/L	2.5	07/24/2024 9:49	R350752
<b>SW-846 9036 (DISSOLVED)</b>									
Sulfate	NELAP	614	1000		1550	mg/L	100	07/29/2024 11:56	R350922
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	1230	2000		2050	mg/L	200	07/27/2024 0:16	R350878
<b>SW-846 9040B, LABORATORY ANALYZED</b>									
Lab pH	NELAP	0	1.00	H	8.01		1	07/23/2024 10:20	R350588
<b>SW-846 9214 (DISSOLVED)</b>									
Fluoride	NELAP	0.04	0.10		0.35	mg/L	1	07/23/2024 10:12	R350609
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.36	mg/L	1	07/23/2024 10:42	R350609
<b>SW-846 9251 (DISSOLVED)</b>									
Chloride	NELAP	5	40		292	mg/L	10	07/26/2024 13:09	R350886
<b>SW-846 9251 (TOTAL)</b>									
Chloride	NELAP	5	40		292	mg/L	10	07/29/2024 23:00	R350942
<b>SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)</b>									
Barium	NELAP	0.0007	0.0025		0.0912	mg/L	1	07/23/2024 14:22	226024
Beryllium	NELAP	0.0002	0.0005		< 0.0005	mg/L	1	07/23/2024 14:22	226024
Boron	NELAP	0.0900	0.200		21.0	mg/L	10	07/25/2024 11:26	R350786
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 14:22	226024
Chromium	NELAP	0.0028	0.0050		< 0.0050	mg/L	1	07/23/2024 14:22	226024
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 14:22	226024
Lead	NELAP	0.0040	0.0075		< 0.0075	mg/L	1	07/23/2024 14:22	226024
Molybdenum	NELAP	0.0037	0.0100		0.0571	mg/L	1	07/23/2024 14:22	226024
Selenium	NELAP	0.017	0.040	J	0.022	mg/L	1	07/23/2024 14:22	226024
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.128	mg/L	1	07/23/2024 17:31	226025
Beryllium	NELAP	0.0002	0.0005	J	0.0004	mg/L	1	07/23/2024 17:31	226025
Boron	NELAP	0.0900	0.200	S	25.3	mg/L	10	07/25/2024 14:04	226025
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 17:31	226025
Chromium	NELAP	0.0028	0.0050		0.0068	mg/L	1	07/23/2024 17:31	226025
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 17:31	226025
Lead	NELAP	0.0040	0.0075		< 0.0075	mg/L	1	07/23/2024 17:31	226025
Molybdenum	NELAP	0.0037	0.0100		0.0611	mg/L	1	07/23/2024 17:31	226025
Selenium	NELAP	0.017	0.040	J	0.027	mg/L	1	07/23/2024 17:31	226025
<i>Matrix spike control limits are not applicable due to high sample/spike ratio.</i>									
<b>SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)</b>									
Antimony	NELAP	0.0008	0.0010	J	0.0010	mg/L	5	07/23/2024 17:34	226024
Arsenic	NELAP	0.0004	0.0010		0.0142	mg/L	5	07/23/2024 17:34	226024
Lithium	*	0.0015	0.0030		0.0553	mg/L	5	07/23/2024 17:34	226024
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	07/23/2024 17:34	226024
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010	J	0.0008	mg/L	5	07/25/2024 19:34	226025
Arsenic	NELAP	0.0004	0.0010		0.0328	mg/L	5	07/24/2024 19:53	226025
Lithium	*	0.0015	0.0030		0.0899	mg/L	5	07/24/2024 19:53	226025
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	07/24/2024 19:53	226025



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-006

Client Sample ID: L-3

Matrix: GROUNDWATER

Collection Date: 07/19/2024 9:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 7470A (DISSOLVED)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 9:51	226064
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 9:49	226064
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	08/12/2024 0:00	R351803
Radium-228	*	0	0		See Attached	pci/L	1	08/12/2024 0:00	R351803



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-007

Client Sample ID: L-4

Matrix: GROUNDWATER

Collection Date: 07/19/2024 8:55

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		5660	mg/L	2.5	07/24/2024 9:59	R350752
<b>SW-846 9036 (DISSOLVED)</b>									
Sulfate	NELAP	614	1000		2950	mg/L	100	07/26/2024 23:04	R350878
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	614	1000		2770	mg/L	100	07/27/2024 0:21	R350878
<b>SW-846 9040B, LABORATORY ANALYZED</b>									
Lab pH	NELAP	0	1.00	H	8.97		1	07/23/2024 10:22	R350588
<b>SW-846 9214 (DISSOLVED)</b>									
Fluoride	NELAP	0.04	0.10		0.62	mg/L	1	07/23/2024 10:17	R350609
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.64	mg/L	1	07/23/2024 10:44	R350609
<b>SW-846 9251 (DISSOLVED)</b>									
Chloride	NELAP	10	80		483	mg/L	20	07/29/2024 22:09	R350942
<b>SW-846 9251 (TOTAL)</b>									
Chloride	NELAP	10	80		479	mg/L	20	07/29/2024 23:05	R350942
<b>SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)</b>									
Barium	NELAP	0.0007	0.0025		0.101	mg/L	1	07/23/2024 14:24	226024
Beryllium	NELAP	0.0002	0.0005		< 0.0005	mg/L	1	07/23/2024 14:24	226024
Boron	NELAP	0.0090	0.0200		13.3	mg/L	1	07/23/2024 14:24	226024
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 14:24	226024
Chromium	NELAP	0.0028	0.0050		< 0.0050	mg/L	1	07/23/2024 14:24	226024
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 14:24	226024
Lead	NELAP	0.0040	0.0075		< 0.0075	mg/L	1	07/23/2024 14:24	226024
Molybdenum	NELAP	0.0037	0.0100		< 0.0100	mg/L	1	07/23/2024 14:24	226024
Selenium	NELAP	0.0170	0.0400		0.0456	mg/L	1	07/23/2024 14:24	226024
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.497	mg/L	1	07/23/2024 17:20	226025
Beryllium	NELAP	0.0002	0.0005		0.0045	mg/L	1	07/23/2024 17:20	226025
Boron	NELAP	0.0900	0.200		15.8	mg/L	10	07/25/2024 14:09	226025
Cadmium	NELAP	0.0005	0.0020		0.0097	mg/L	1	07/23/2024 17:20	226025
Chromium	NELAP	0.0028	0.0050		0.0773	mg/L	1	07/23/2024 17:20	226025
Cobalt	NELAP	0.0020	0.0050		0.0194	mg/L	1	07/23/2024 17:20	226025
Lead	NELAP	0.0040	0.0075		0.160	mg/L	1	07/23/2024 17:20	226025
Molybdenum	NELAP	0.0037	0.0100		0.0100	mg/L	1	07/23/2024 17:20	226025
Selenium	NELAP	0.0170	0.0400		0.0428	mg/L	1	07/29/2024 14:43	226025
<b>SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)</b>									
Antimony	NELAP	0.0008	0.0010		0.0025	mg/L	5	07/23/2024 17:39	226024
Arsenic	NELAP	0.0004	0.0010		0.185	mg/L	5	07/24/2024 15:52	226024
Lithium	*	0.0015	0.0030		0.0071	mg/L	5	07/23/2024 17:39	226024
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	07/23/2024 17:39	226024
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		0.0051	mg/L	5	07/25/2024 19:12	226025
Arsenic	NELAP	0.0004	0.0010		0.453	mg/L	5	07/24/2024 21:12	226025
Lithium	*	0.0015	0.0030		0.0522	mg/L	5	07/24/2024 21:12	226025
Thallium	NELAP	0.0010	0.0020		0.0055	mg/L	5	07/24/2024 21:12	226025



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-007

Client Sample ID: L-4

Matrix: GROUNDWATER

Collection Date: 07/19/2024 8:55

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 7470A (DISSOLVED)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 9:56	226064
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		0.00030	mg/L	1	07/24/2024 9:54	226064
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	08/12/2024 0:00	R351803
Radium-228	*	0	0		See Attached	pci/L	1	08/12/2024 0:00	R351803



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-008

Client Sample ID: L-5

Matrix: GROUNDWATER

Collection Date: 07/19/2024 9:55

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		3960	mg/L	2.5	07/24/2024 9:59	R350752
<b>SW-846 9036 (DISSOLVED)</b>									
Sulfate	NELAP	1230	2000		2190	mg/L	200	07/26/2024 23:06	R350878
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	1230	2000		2190	mg/L	200	07/27/2024 0:24	R350878
<b>SW-846 9040B, LABORATORY ANALYZED</b>									
Lab pH	NELAP	0	1.00	H	8.27		1	07/23/2024 10:23	R350588
<b>SW-846 9214 (DISSOLVED)</b>									
Fluoride	NELAP	0.04	0.10		0.37	mg/L	1	07/23/2024 10:23	R350609
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.38	mg/L	1	07/23/2024 10:52	R350609
<b>SW-846 9251 (DISSOLVED)</b>									
Chloride	NELAP	5	40		302	mg/L	10	07/26/2024 13:25	R350886
<b>SW-846 9251 (TOTAL)</b>									
Chloride	NELAP	5	40		299	mg/L	10	07/29/2024 23:10	R350942
<b>SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)</b>									
Barium	NELAP	0.0007	0.0025		0.0523	mg/L	1	07/23/2024 14:25	226024
Beryllium	NELAP	0.0002	0.0005		< 0.0005	mg/L	1	07/23/2024 14:25	226024
Boron	NELAP	0.0900	0.200		37.5	mg/L	10	07/25/2024 11:27	226024
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 14:25	226024
Chromium	NELAP	0.0028	0.0050		< 0.0050	mg/L	1	07/23/2024 14:25	226024
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 14:25	226024
Lead	NELAP	0.0040	0.0075		< 0.0075	mg/L	1	07/23/2024 14:25	226024
Molybdenum	NELAP	0.0037	0.0100		0.366	mg/L	1	07/23/2024 14:25	226024
Selenium	NELAP	0.017	0.040	J	0.034	mg/L	1	07/23/2024 14:25	226024
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0877	mg/L	1	07/23/2024 17:36	226025
Beryllium	NELAP	0.0002	0.0005		0.0005	mg/L	1	07/23/2024 17:36	226025
Boron	NELAP	0.0900	0.200		39.8	mg/L	10	07/25/2024 14:25	226025
Cadmium	NELAP	0.0005	0.0020		< 0.0020	mg/L	1	07/23/2024 17:36	226025
Chromium	NELAP	0.0028	0.0050		0.0078	mg/L	1	07/23/2024 17:36	226025
Cobalt	NELAP	0.0020	0.0050		< 0.0050	mg/L	1	07/23/2024 17:36	226025
Lead	NELAP	0.0040	0.0075	J	0.0043	mg/L	1	07/23/2024 17:36	226025
Molybdenum	NELAP	0.0037	0.0100		0.378	mg/L	1	07/23/2024 17:36	226025
Selenium	NELAP	0.017	0.040	J	0.028	mg/L	1	07/23/2024 17:36	226025
<b>SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)</b>									
Antimony	NELAP	0.0008	0.0010		0.0014	mg/L	5	07/23/2024 19:16	226024
Arsenic	NELAP	0.0004	0.0010		0.0217	mg/L	5	07/23/2024 19:16	226024
Lithium	*	0.0015	0.0030		0.144	mg/L	5	07/23/2024 19:16	226024
Thallium	NELAP	0.0010	0.0020		0.0023	mg/L	5	07/23/2024 19:16	226024
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010	J	0.0009	mg/L	5	07/25/2024 19:17	226025
Arsenic	NELAP	0.0004	0.0010		0.0473	mg/L	5	07/24/2024 21:17	226025
Lithium	*	0.0015	0.0030		0.217	mg/L	5	07/24/2024 21:17	226025
Thallium	NELAP	0.0010	0.0020		0.0036	mg/L	5	07/24/2024 21:17	226025



# Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Lab ID: 24071773-008

Client Sample ID: L-5

Matrix: GROUNDWATER

Collection Date: 07/19/2024 9:55

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 7470A (DISSOLVED)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 10:05	226064
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	07/24/2024 10:03	226064
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	08/12/2024 0:00	R351803
Radium-228	*	0	0		See Attached	pci/L	1	08/12/2024 0:00	R351803



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R350690		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	07/23/2024	

Batch R350690		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		962	1000	0	96.2	90	110	07/23/2024	

Batch R350690		SampType: DUP		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24061962-018ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids		20		1340				1320	1.20	07/23/2024		

Batch R350752		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	07/24/2024	

Batch R350752		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		1010	1000	0	101.2	90	110	07/24/2024	

Batch R350752		SampType: DUP		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24071773-006ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids		50		3340				3635	8.61	07/24/2024		

### SW-846 9036 (DISSOLVED)

Batch R350878		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071773-005BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		1000		3400	2000	1559	92.2	85	115	07/26/2024	



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9036 (DISSOLVED)

Batch R350878		SampType: MSD		Units mg/L				RPD Limit 10			Date Analyzed
SampID: 24071773-005BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		1000		<b>3410</b>	2000	1559	92.5	3403	0.17	07/26/2024	

Batch R350922		SampType: MS		Units mg/L				Low Limit	High Limit	Date Analyzed
SampID: 24061962-008BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		50		<b>166</b>	100.0	75.94	89.6	85	115	07/29/2024

Batch R350922		SampType: MSD		Units mg/L				RPD Limit 10			Date Analyzed
SampID: 24061962-008BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		50		<b>164</b>	100.0	75.94	88.3	165.5	0.75	07/29/2024	

### SW-846 9036 (TOTAL)

Batch R350878		SampType: MBLK		Units mg/L				Low Limit	High Limit	Date Analyzed
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		<b>&lt; 10</b>	6.140	0	0	-100	100	07/26/2024

Batch R350878		SampType: LCS		Units mg/L				Low Limit	High Limit	Date Analyzed
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		<b>19</b>	20.00	0	95.8	90	110	07/26/2024

Batch R350878		SampType: MS		Units mg/L				Low Limit	High Limit	Date Analyzed
SampID: 24061962-016AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		100		<b>388</b>	200.0	201.3	93.1	85	115	07/26/2024

Batch R350878		SampType: MSD		Units mg/L				RPD Limit 10			Date Analyzed
SampID: 24061962-016AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		<b>397</b>	200.0	201.3	97.7	387.5	2.35	07/26/2024	



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9036 (TOTAL)

Batch R350878		SampType: MS		Units mg/L							Date Analyzed
SampID: 24061962-020AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		20		<b>85</b>	40.00	45.95	98.8	85	115	07/26/2024	

Batch R350878		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24061962-020AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		20		<b>85</b>	40.00	45.95	97.3	85.45	0.69	07/26/2024		

Batch R350878		SampType: MS		Units mg/L							Date Analyzed
SampID: 24061962-025AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100	S	<b>269</b>	200.0	102.7	83.3	85	115	07/26/2024	

Batch R350878		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24061962-025AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		100		<b>275</b>	200.0	102.7	85.9	269.4	1.93	07/26/2024		

Batch R350878		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071773-005AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		1000		<b>3460</b>	2000	1608	92.4	85	115	07/26/2024	

Batch R350878		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24071773-005AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		1000		<b>3540</b>	2000	1608	96.5	3455	2.39	07/26/2024		

Batch R350878		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071895-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		<b>325</b>	200.0	142.6	91.1	90	110	07/26/2024	

Batch R350878		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24071895-001BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		100	S	<b>322</b>	200.0	142.6	89.7	324.8	0.88	07/26/2024		



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9036 (TOTAL)

Batch R350922		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	07/29/2024	

Batch R350922		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	94.1	90	110	07/29/2024	

Batch R350922		SampType: MS		Units mg/L							
SampID: 24071132-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		20	S	75	40.00	43.29	79.1	85	115	07/29/2024	

Batch R350922		SampType: MSD		Units mg/L							
SampID: 24071132-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		20		78	40.00	43.29	86.6	74.94	3.91	07/29/2024	

Batch R350922		SampType: MS		Units mg/L							
SampID: 24071132-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		37	20.00	16.61	99.6	85	115	07/29/2024	

Batch R350922		SampType: MSD		Units mg/L							
SampID: 24071132-002AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		10		36	20.00	16.61	99.2	36.52	0.22	07/29/2024	

Batch R350922		SampType: MS		Units mg/L							
SampID: 24071132-010AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50		141	100.0	55.92	85.4	85	115	07/29/2024	

Batch R350922		SampType: MSD		Units mg/L							
SampID: 24071132-010AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		50		145	100.0	55.92	89.2	141.4	2.59	07/29/2024	



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9036 (TOTAL)

Batch R350922		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071132-013AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		20		<b>75</b>	40.00	36.86	95.0	85	115	07/29/2024	

Batch R350922		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24071132-013AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		20		<b>74</b>	40.00	36.86	92.2	74.84	1.49	07/29/2024		

Batch R350922		SampType: MS		Units mg/L							Date Analyzed
SampID: 24072345-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		200		<b>720</b>	400.0	327.6	98.1	90	110	07/29/2024	

Batch R350922		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24072345-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		200		<b>718</b>	400.0	327.6	97.7	720.0	0.22	07/29/2024		

Batch R350922		SampType: MS		Units mg/L							Date Analyzed
SampID: 24072346-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		200		<b>725</b>	400.0	351.0	93.6	90	110	07/29/2024	

Batch R350922		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24072346-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		200	S	<b>709</b>	400.0	351.0	89.5	725.4	2.28	07/29/2024		

### SW-846 9040B, LABORATORY ANALYZED

Batch R350588		SampType: LCS		Units							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Lab pH		1.00		<b>6.99</b>	7.000	0	99.9	99.29	100.7	07/23/2024	



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9040B, LABORATORY ANALYZED

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071773-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	10.1				10.12	0.20	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071773-002ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	9.68				9.700	0.21	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071773-003ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	9.89				9.890	0.00	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071773-004ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	10.2				10.24	0.00	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071773-005ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	9.59				9.580	0.10	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071773-006ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	8.02				8.010	0.12	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071773-007ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	8.97				8.970	0.00	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071773-008ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	8.27				8.270	0.00	07/23/2024



## Quality Control Results

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Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9040B, LABORATORY ANALYZED

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071771-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	7.82				7.810	0.13	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071776-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	7.43				7.420	0.13	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071778-002ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	7.56				7.550	0.13	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071789-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	7.90				7.900	0.00	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071789-002ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	7.86				7.850	0.13	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071789-003ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	5.76				5.730	0.52	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071789-004ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	5.82				5.780	0.69	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071789-005ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	6.84				6.760	1.18	07/23/2024



## Quality Control Results

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Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9040B, LABORATORY ANALYZED

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071789-006ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	<b>5.88</b>				5.920	0.68	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071789-007ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	<b>6.10</b>				6.100	0.00	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071789-008ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	<b>5.63</b>				5.650	0.35	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071804-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	<b>11.1</b>				11.05	0.09	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071805-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	<b>7.04</b>				7.030	0.14	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071839-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	<b>7.04</b>				7.040	0.00	07/23/2024

Batch R350588		SampType: DUP		Units		RPD Limit 10				Date Analyzed
SampID: 24071843-002ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Lab pH		1.00	H	<b>7.58</b>				7.560	0.26	07/23/2024



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9214 (DISSOLVED)

Batch R350609		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071773-006BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		2.31	2.000	0.3530	97.8	75	125	07/23/2024	

Batch R350609		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24071773-006BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Fluoride		0.10		2.34	2.000	0.3530	99.2	2.310	1.20	07/23/2024		

### SW-846 9214 (TOTAL)

Batch R350609		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		< 0.10	0.0500	0	0	-100	100	07/23/2024	

Batch R350609		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		1.06	1.000	0	106.0	90	110	07/23/2024	

Batch R350609		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071772-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		2.39	2.000	0.1960	109.7	75	125	07/23/2024	

Batch R350609		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24071772-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Fluoride		0.10		2.28	2.000	0.1960	104.0	2.389	4.80	07/23/2024		

Batch R350609		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071773-003AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		2.22	2.000	0.1200	105.0	75	125	07/23/2024	



## Quality Control Results

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Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9214 (TOTAL)

Batch R350609		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24071773-003AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.11	2.000	0.1200	99.6	2.219	4.99	07/23/2024	

### SW-846 9251 (DISSOLVED)

Batch R350886		SampType: MS		Units mg/L							
SampID: 24061962-008BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		35	20.00	16.31	92.1	85	115	07/26/2024	

Batch R350886		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24061962-008BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4		35	20.00	16.31	92.0	34.73	0.03	07/26/2024	

Batch R350886		SampType: MS		Units mg/L							
SampID: 24071773-005BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		40	E	525	200.0	333.7	95.8	85	115	07/26/2024	

Batch R350886		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24071773-005BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		40	E	517	200.0	333.7	91.8	525.2	1.52	07/26/2024	

### SW-846 9251 (TOTAL)

Batch R350886		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	07/26/2024	

Batch R350886		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		20	20.00	0	98.0	90	110	07/26/2024	



## Quality Control Results

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Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9251 (TOTAL)

Batch R350886		SampType: MS		Units mg/L							Date Analyzed
SampID: 24061962-016AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		20	E	<b>267</b>	100.0	168.7	98.2	85	115	07/26/2024	

Batch R350886		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24061962-016AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Chloride		20	E	<b>261</b>	100.0	168.7	92.6	266.9	2.12	07/26/2024		

Batch R350886		SampType: MS		Units mg/L							Date Analyzed
SampID: 24061962-020AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		4		<b>49</b>	20.00	30.94	91.8	85	115	07/26/2024	

Batch R350886		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24061962-020AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Chloride		4		<b>49</b>	20.00	30.94	90.4	49.31	0.57	07/26/2024		

Batch R350886		SampType: MS		Units mg/L							Date Analyzed
SampID: 24061962-025AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		40		<b>275</b>	200.0	85.74	94.6	85	115	07/26/2024	

Batch R350886		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24061962-025AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Chloride		40		<b>275</b>	200.0	85.74	94.6	275.0	0.04	07/26/2024		

Batch R350942		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		4		< 4	0.5000	0	0	-100	100	07/29/2024	

Batch R350942		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		4		<b>20</b>	20.00	0	98.2	90	110	07/29/2024	



## Quality Control Results

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Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9251 (TOTAL)

Batch R350942		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071132-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>33</b>	20.00	14.64	91.7	85	115	07/29/2024	

Batch R350942		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24071132-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		<b>33</b>	20.00	14.64	90.4	32.97	0.79	07/29/2024		

Batch R350942		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071132-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>37</b>	20.00	19.34	90.2	85	115	07/29/2024	

Batch R350942		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24071132-002AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		<b>37</b>	20.00	19.34	88.4	37.39	0.97	07/29/2024		

Batch R350942		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071132-013AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		8	E	<b>123</b>	40.00	84.65	95.8	85	115	07/29/2024	

Batch R350942		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24071132-013AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		8	E	<b>121</b>	40.00	84.65	91.7	123.0	1.34	07/29/2024		

Batch R350942		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071773-005AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		80		<b>668</b>	400.0	315.5	88.1	85	115	07/29/2024	

Batch R350942		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24071773-005AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		80		<b>676</b>	400.0	315.5	90.0	667.9	1.16	07/29/2024		



## Quality Control Results

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Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 9251 (TOTAL)

Batch R350942		SampType: MS		Units mg/L							Date Analyzed
SampID: 24071875-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		40		<b>363</b>	200.0	188.6	87.3	85	115	07/29/2024	

Batch R350942		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24071875-002AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		40		<b>364</b>	200.0	188.6	87.5	363.1	0.13	07/29/2024		

Batch R350942		SampType: MS		Units mg/L							Date Analyzed
SampID: 24072346-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>27</b>	20.00	8.420	95.0	85	115	07/29/2024	

Batch R350942		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24072346-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		<b>27</b>	20.00	8.420	95.2	27.41	0.15	07/29/2024		

### SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 226024		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-226024											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		< <b>0.0025</b>	0.0007	0	0	-100	100	07/23/2024	
Beryllium		0.0005		< <b>0.0005</b>	0.0002	0	0	-100	100	07/23/2024	
Boron		0.0200		< <b>0.0200</b>	0.0090	0	0	-100	100	07/23/2024	
Cadmium		0.0020		< <b>0.0020</b>	0.0005	0	0	-100	100	07/23/2024	
Chromium		0.0050		< <b>0.0050</b>	0.0028	0	0	-100	100	07/23/2024	
Cobalt		0.0050		< <b>0.0050</b>	0.0020	0	0	-100	100	07/23/2024	
Lead		0.0150		< <b>0.0150</b>	0.0014	0	0	-100	100	07/23/2024	
Molybdenum		0.0100		< <b>0.0100</b>	0.0037	0	0	-100	100	07/23/2024	
Selenium		0.0400		< <b>0.0400</b>	0.0170	0	0	-100	100	07/23/2024	



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 226024      SampType: LCS      Units mg/L  
 SampID: LCS-226024

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		<b>1.86</b>	2.000	0	93.2	85	115	07/23/2024
Beryllium		0.0005		<b>0.0458</b>	0.0500	0	91.6	85	115	07/23/2024
Boron		0.0200		<b>0.449</b>	0.5000	0	89.9	85	115	07/23/2024
Cadmium		0.0020		<b>0.0460</b>	0.0500	0	92.0	85	115	07/23/2024
Chromium		0.0050		<b>0.187</b>	0.2000	0	93.4	85	115	07/23/2024
Cobalt		0.0050		<b>0.478</b>	0.5000	0	95.5	85	115	07/23/2024
Lead		0.0150		<b>0.462</b>	0.5000	0	92.3	85	115	07/23/2024
Molybdenum		0.0100		<b>0.456</b>	0.5000	0	91.3	85	115	07/23/2024
Selenium		0.0400		<b>0.461</b>	0.5000	0	92.2	85	115	07/23/2024

### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 226025      SampType: MBLK      Units mg/L  
 SampID: MBLK-226025

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		< <b>0.0025</b>	0.0007	0	0	-100	100	07/23/2024
Beryllium		0.0005		< <b>0.0005</b>	0.0002	0	0	-100	100	07/23/2024
Boron		0.0200		< <b>0.0200</b>	0.0090	0	0	-100	100	07/23/2024
Cadmium		0.0020		< <b>0.0020</b>	0.0005	0	0	-100	100	07/23/2024
Chromium		0.0050		< <b>0.0050</b>	0.0028	0	0	-100	100	07/23/2024
Cobalt		0.0050		< <b>0.0050</b>	0.0020	0	0	-100	100	07/23/2024
Lead		0.0150		< <b>0.0150</b>	0.0040	0	0	-100	100	07/23/2024
Molybdenum		0.0100		< <b>0.0100</b>	0.0037	0	0	-100	100	07/23/2024
Selenium		0.0400		< <b>0.0400</b>	0.0170	0	0	-100	100	07/23/2024

Batch 226025      SampType: LCS      Units mg/L  
 SampID: LCS-226025

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		<b>1.94</b>	2.000	0	97.2	85	115	07/23/2024
Beryllium		0.0005		<b>0.0485</b>	0.0500	0	97.0	85	115	07/23/2024
Boron		0.0200		<b>0.472</b>	0.5000	0	94.4	85	115	07/23/2024
Cadmium		0.0020		<b>0.0482</b>	0.0500	0	96.4	85	115	07/23/2024
Chromium		0.0050		<b>0.194</b>	0.2000	0	97.2	85	115	07/23/2024
Cobalt		0.0050		<b>0.501</b>	0.5000	0	100.1	85	115	07/23/2024
Lead		0.0150		<b>0.485</b>	0.5000	0	97.0	85	115	07/23/2024
Molybdenum		0.0100		<b>0.480</b>	0.5000	0	95.9	85	115	07/23/2024
Selenium		0.0400		<b>0.496</b>	0.5000	0	99.3	85	115	07/23/2024



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 226025		SampType: MS		Units mg/L						
SampID: 24071773-006DMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		<b>1.99</b>	2.000	0.1276	93.1	75	125	07/23/2024
Beryllium		0.0005		<b>0.0479</b>	0.0500	0.0004000	95.0	75	125	07/23/2024
Boron		0.200	S	<b>25.2</b>	0.5000	25.25	-10.6	75	125	07/25/2024
Cadmium		0.0020		<b>0.0446</b>	0.0500	0	89.2	75	125	07/23/2024
Chromium		0.0050		<b>0.196</b>	0.2000	0.006800	94.7	75	125	07/23/2024
Cobalt		0.0050		<b>0.483</b>	0.5000	0	96.5	75	125	07/23/2024
Lead		0.0150		<b>0.464</b>	0.5000	0	92.8	75	125	07/23/2024
Molybdenum		0.0100		<b>0.535</b>	0.5000	0.06110	94.8	75	125	07/23/2024
Selenium		0.0400		<b>0.526</b>	0.5000	0.02720	99.7	75	125	07/23/2024

Batch 226025		SampType: MSD		Units mg/L							RPD Limit 20
SampID: 24071773-006DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Barium		0.0025		<b>1.99</b>	2.000	0.1276	93.1	1.990	0.00	07/23/2024	
Beryllium		0.0005		<b>0.0481</b>	0.0500	0.0004000	95.4	0.04790	0.42	07/23/2024	
Boron		0.200	S	<b>25.1</b>	0.5000	25.25	-36.2	25.20	0.51	07/25/2024	
Cadmium		0.0020		<b>0.0447</b>	0.0500	0	89.4	0.04460	0.22	07/23/2024	
Chromium		0.0050		<b>0.197</b>	0.2000	0.006800	95.2	0.1961	0.51	07/23/2024	
Cobalt		0.0050		<b>0.485</b>	0.5000	0	97.1	0.4827	0.56	07/23/2024	
Lead		0.0150		<b>0.465</b>	0.5000	0	93.1	0.4638	0.34	07/23/2024	
Molybdenum		0.0100		<b>0.538</b>	0.5000	0.06110	95.5	0.5350	0.65	07/23/2024	
Selenium		0.0400		<b>0.530</b>	0.5000	0.02720	100.5	0.5256	0.81	07/23/2024	

### SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)

Batch 226024		SampType: MBLK		Units mg/L						
SampID: MBLK-226024										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< <b>0.0010</b>	0.0004	0	0	-100	100	07/23/2024
Arsenic		0.0010		< <b>0.0010</b>	0.0004	0	0	-100	100	07/23/2024
Lithium	*	0.0030		< <b>0.0030</b>	0.0015	0	0	-100	100	07/23/2024
Thallium		0.0020		< <b>0.0020</b>	0.0010	0	0	-100	100	07/23/2024



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)

**Batch 226024**      SampType: LCS      Units mg/L

SampID: LCS-226024

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		<b>0.450</b>	0.5000	0	90.1	80	120	07/23/2024
Arsenic		0.0010		<b>0.465</b>	0.5000	0	93.1	80	120	07/23/2024
Lithium	*	0.0030		<b>0.487</b>	0.5000	0	97.4	80	120	07/23/2024
Thallium		0.0020		<b>0.231</b>	0.2500	0	92.4	80	120	07/23/2024

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

**Batch 226025**      SampType: MBLK      Units mg/L

SampID: MBLK-226025

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010	S	<b>0.0012</b>	0.0004	0	261.6	-100	100	07/24/2024
Antimony		0.0010		< <b>0.0010</b>	0.0004	0	0	-100	100	07/25/2024
Arsenic		0.0010		< <b>0.0010</b>	0.0004	0	0	-100	100	07/24/2024
Lithium	*	0.0030		< <b>0.0030</b>	0.0015	0	0	-100	100	07/24/2024
Thallium		0.0020		< <b>0.0020</b>	0.0010	0	0	-100	100	07/24/2024

**Batch 226025**      SampType: LCS      Units mg/L

SampID: LCS-226025

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010	B	<b>0.548</b>	0.5000	0	109.5	80	120	07/24/2024
Arsenic		0.0010		<b>0.501</b>	0.5000	0	100.1	80	120	07/24/2024
Lithium	*	0.0030		<b>0.524</b>	0.5000	0	104.9	80	120	07/24/2024
Thallium		0.0020		<b>0.222</b>	0.2500	0	88.9	80	120	07/24/2024

**Batch 226025**      SampType: MS      Units mg/L

SampID: 24061962-044BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010	B	<b>0.549</b>	0.5000	0.0004561	109.8	75	125	07/24/2024
Arsenic		0.0010		<b>0.512</b>	0.5000	0.004724	101.4	75	125	07/24/2024
Lithium	*	0.0030		<b>0.535</b>	0.5000	0.01302	104.3	75	125	07/24/2024
Thallium		0.0020		<b>0.240</b>	0.2500	0	96.1	75	125	07/24/2024



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 226025		SampType: MSD		Units mg/L				RPD Limit 20			Date Analyzed
SampID: 24061962-044BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Antimony		0.0010	B	<b>0.551</b>	0.5000	0.0004561	110.1	0.5493	0.28	07/24/2024	
Arsenic		0.0010		<b>0.518</b>	0.5000	0.004724	102.6	0.5118	1.18	07/24/2024	
Lithium	*	0.0030		<b>0.528</b>	0.5000	0.01302	103.0	0.5346	1.22	07/24/2024	
Thallium		0.0020		<b>0.243</b>	0.2500	0	97.1	0.2403	1.03	07/24/2024	

Batch 226025		SampType: MS		Units mg/L				RPD Limit 20			Date Analyzed
SampID: 24071773-006DMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		<b>0.562</b>	0.5000	0.0007643	112.2	75	125	07/25/2024	
Arsenic		0.0010		<b>0.586</b>	0.5000	0.03279	110.6	75	125	07/24/2024	
Lithium	*	0.0030		<b>0.583</b>	0.5000	0.08986	98.5	75	125	07/24/2024	
Thallium		0.0020		<b>0.245</b>	0.2500	0	98.2	75	125	07/24/2024	

Batch 226025		SampType: MSD		Units mg/L				RPD Limit 20			Date Analyzed
SampID: 24071773-006DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Antimony		0.0010		<b>0.572</b>	0.5000	0.0007643	114.3	0.5616	1.88	07/25/2024	
Arsenic		0.0010		<b>0.624</b>	0.5000	0.03279	118.3	0.5860	6.29	07/24/2024	
Lithium	*	0.0030		<b>0.591</b>	0.5000	0.08986	100.2	0.5826	1.43	07/24/2024	
Thallium		0.0020		<b>0.243</b>	0.2500	0	97.1	0.2454	1.12	07/24/2024	

### SW-846 7470A (TOTAL)

Batch 226026		SampType: MBLK		Units mg/L				RPD Limit 20			Date Analyzed
SampID: MBLK-226026											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>&lt; 0.00020</b>	0.0001	0	0	-100	100	07/23/2024	

Batch 226026		SampType: LCS		Units mg/L				RPD Limit 20			Date Analyzed
SampID: LCS-226026											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00447</b>	0.0050	0	89.4	85	115	07/23/2024	

Batch 226026		SampType: MS		Units mg/L				RPD Limit 20			Date Analyzed
SampID: 24061962-049BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00467</b>	0.0050	0	93.3	75	125	07/23/2024	



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 7470A (TOTAL)

Batch 226026		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24061962-049BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020		<b>0.00462</b>	0.0050	0	92.4	0.004667	0.99	07/23/2024	

Batch 226026		SampType: MS		Units mg/L							
SampID: 24071717-018BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00467</b>	0.0050	0	93.3	75	125	07/23/2024	

Batch 226026		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24071717-018BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020		<b>0.00475</b>	0.0050	0	95.1	0.004665	1.90	07/23/2024	

Batch 226064		SampType: MBLK		Units mg/L							
SampID: MBLK-226064											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		< <b>0.00020</b>	0.0001	0	0	-100	100	07/24/2024	

Batch 226064		SampType: LCS		Units mg/L							
SampID: LCS-226064											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00442</b>	0.0050	0	88.3	85	115	07/24/2024	

Batch 226064		SampType: MS		Units mg/L							
SampID: 24071753-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00435</b>	0.0050	0	87.1	75	125	07/24/2024	

Batch 226064		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24071753-001BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020		<b>0.00438</b>	0.0050	0	87.7	0.004353	0.71	07/24/2024	

Batch 226064		SampType: MS		Units mg/L							
SampID: 24071818-002CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020	S	<b>0.00325</b>	0.0050	0	65.0	75	125	07/24/2024	



## Quality Control Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

### SW-846 7470A (TOTAL)

Batch 226064		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24071818-002CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020	S	<b>0.00321</b>	0.0050	0	64.3	0.003248	1.04	07/24/2024	



# Receiving Check List

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 24071773

Client Project: CWLP CCR GW

Report Date: 16-Aug-24

Carrier: Paul Reeves

Received By: NR

Completed by:

Reviewed by:

On:

22-Jul-24

Paul Schultz

On:

22-Jul-24

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **1.3**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA

Sample analyses to be measured in the field and/or within 15 minutes of collection were analyzed in the lab as soon as practicable. These analyses include Chlorine (demand, free and/or residual), Carbon Dioxide, Dissolved Oxygen, Ferrous Iron, pH, and Sulfite.

- Container/Temp Blank temperature in compliance? Yes  No

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

pH strip #96651. - NR/pschultz - 7/22/2024 1:48:55 PM

Additional Nitric Acid (98584) was needed in L3 and L4 upon arrival at the laboratory. Neither sample reached the desired pH range for Radium 226/228 analyses. - NR/pschultz - 7/22/2024 1:48:58 PM

# CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: Andrews Engineering  
 Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_  
 Contact: Colleen Grey Phone: 217-787-2334  
 Email: cgrey@andrews-eng.com Fax: \_\_\_\_\_

Samples on:  ICE  BLUE ICE  NO ICE 1.3 °C/6.7  
 Preserved in:  LAB  FELD **FOR LAB USE ONLY**

LAB NOTES: Added HNO<sub>3</sub> to L3 & L4 2L - neither were in preserve 7/22

Client Comments: (9854)



Are these samples known to be involved in litigation? If yes, a surcharge will apply:  Yes  No  
 Are these samples known to be hazardous?  Yes  No  
 Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section:  Yes  No

PROJECT NAME/NUMBER: CWLP CCR GW  
 SAMPLE COLLECTOR'S NAME: A. Van Hook

RESULTS REQUESTED:  Standard  1-2 Day (100% Surcharge)  Other  3 Day (50% Surcharge)  
 BILLING INSTRUCTIONS: Invoice AEI

# and Type of Containers | INDICATE ANALYSIS REQUESTED

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Red 226 and 228	Total & Diss. Sb, As, Ba, Be	Total & Diss. B, Cd, Cr, Co, Pb	Total & Diss. Se, Ti, Li, Mo	Total & Diss. Hg	Total & Diss. Cl, F, SO4	pH	TDS
<u>24071773-001</u>	D-1	<u>7/18/24 (14:25)</u>	Groundwater	2									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>-002</u>	D-2	<u>7/19/24 (10:25)</u>	Groundwater	2									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>-003</u>	D-3	<u>7/19/24 (11:05)</u>	Groundwater	2									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>-004</u>	D-4	<u>7/19/24 (11:35)</u>	Groundwater	2									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>-005</u>	L-1	<u>7/18/24 (11:10)</u>	Groundwater	2									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>-006</u>	L-3	<u>7/19/24 (9:20)</u>	Groundwater	2									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>-007</u>	L-4	<u>7/19/24 (8:55)</u>	Groundwater	2									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>-008</u>	L-5	<u>7/19/24 (9:55)</u>	Groundwater	2									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			Groundwater	2																
			Groundwater	2																
			Groundwater	2																

Relinquished By	Date/Time	Received By	Date/Time
<u>A. Van Hook</u>	<u>7/22/24 (9:45) 0800</u>	<u>Trish Reed</u>	<u>7/22/24 0800</u>
<u>[Signature]</u>	<u>7/22/24 1248</u>	<u>[Signature]</u>	<u>7/22/24 1248</u>

\*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions



Summit Environmental Technologies, Inc.  
3310 Win St.  
Cuyahoga Falls, Ohio 44223  
TEL: (330) 253-8211 FAX: (330) 253-4489  
Website: <http://www.settek.com>

August 15, 2024

Shelly Hennessy  
TEKLAB Inc,  
5445 Horseshoe lake Road  
Collinsville, IL 62234  
TEL:  
FAX:  
RE: 24071773

Order No.: 24072021

Dear Shelly Hennessy:

Summit Environmental Technologies, Inc. received 8 sample(s) on 7/24/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf  
Project Manager  
3310 Win St.  
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C



**SUMMIT**  
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## Case Narrative

WO#: 24072021  
Date: 8/15/2024

---

**CLIENT:** TEKLAB Inc,  
**Project:** 24071773

---

### WorkOrder Narrative:

24072021: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

### Analytical Sequence QC Notes:

LCS/LCSD-77611 Radium-226\_DW(903.0): LCS/LCSD exhibited high RPD. Individual recoveries within control.

---

Original



These commonly used Qualifiers and Acronyms may or may not be present in this report.

**Qualifiers**

<b>U</b>	The compound was analyzed for but was not detected above the MDL.
<b>J</b>	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
<b>H</b>	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
<b>D</b>	The result is reported from a dilution.
<b>E</b>	The result exceeded the linear range of the calibration or is estimated due to interference.
<b>MC</b>	The result is below the Minimum Compound Limit.
<b>*</b>	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
<b>m</b>	Manual integration was used to determine the area response.
<b>d</b>	Manual integration in which peak was deleted
<b>N</b>	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
<b>P</b>	The second column confirmation exceeded 25% difference.
<b>C</b>	The result has been confirmed by GC/MS.
<b>X</b>	The result was not confirmed when GC/MS Analysis was performed.
<b>B</b>	The analyte was detected in the Method Blank at a concentration greater than the RL.
<b>MB+</b>	The analyte was detected in the Method Blank at a concentration greater than the MDL.
<b>G</b>	The ICB or CCB contained reportable amounts of analyte.
<b>QC-/+</b>	The CCV recovery failed low (-) or high (+).
<b>R/QDR</b>	The RPD was outside of accepted recovery limits.
<b>QL-/+</b>	The LCS or LCSD recovery failed low (-) or high (+).
<b>QLR</b>	The LCS/LCSD RPD was outside of accepted recovery limits.
<b>QM-/+</b>	The MS or MSD recovery failed low (-) or high (+).
<b>QMR</b>	The MS/MSD RPD was outside of accepted recovery limits.
<b>QV-/+</b>	The ICV recovery failed low (-) or high (+).
<b>S</b>	The spike result was outside of accepted recovery limits.
<b>W</b>	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
<b>Z</b>	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

**Acronyms**

<b>ND</b>	Not Detected	<b>RL</b>	Reporting Limit
<b>QC</b>	Quality Control	<b>MDL</b>	Method Detection Limit
<b>MB</b>	Method Blank	<b>LOD</b>	Level of Detection
<b>LCS</b>	Laboratory Control Sample	<b>LOQ</b>	Level of Quantitation
<b>LCSD</b>	Laboratory Control Sample Duplicate	<b>PQL</b>	Practical Quantitation Limit
<b>QCS</b>	Quality Control Sample	<b>CRQL</b>	Contract Required Quantitation Limit
<b>DUP</b>	Duplicate	<b>PL</b>	Permit Limit
<b>MS</b>	Matrix Spike	<b>RegLvl</b>	Regulatory Limit
<b>MSD</b>	Matrix Spike Duplicate	<b>MCL</b>	Maximum Contamination Limit
<b>RPD</b>	Relative Percent Different	<b>MinCL</b>	Minimum Compound Limit
<b>ICV</b>	Initial Calibration Verification	<b>RA</b>	Reanalysis
<b>ICB</b>	Initial Calibration Blank	<b>RE</b>	Reextraction
<b>CCV</b>	Continuing Calibration Verification	<b>TIC</b>	Tentatively Identified Compound
<b>CCB</b>	Continuing Calibration Blank	<b>RT</b>	Retention Time
<b>RLC</b>	Reporting Limit Check	<b>CF</b>	Calibration Factor

**This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.**



**SUMMIT**  
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 Analytical Laboratories

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 Website: <http://www.settek.com>

**Workorder**  
**Sample Summary**  
 WO#: **24072021**  
**15-Aug-24**

**CLIENT:** TEKLAB Inc,  
**Project:** 24071773

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24072021-001	24071773-001		7/18/2024 2:25:00 PM	7/24/2024 4:10:00 PM	Non-Potable Water
24072021-002	24071773-002		7/19/2024 10:25:00 AM	7/24/2024 4:10:00 PM	Non-Potable Water
24072021-003	24071773-003		7/19/2024 11:05:00 AM	7/24/2024 4:10:00 PM	Non-Potable Water
24072021-004	24071773-004		7/19/2024 11:35:00 AM	7/24/2024 4:10:00 PM	Non-Potable Water
24072021-005	24071773-005		7/18/2024 11:10:00 AM	7/24/2024 4:10:00 PM	Non-Potable Water
24072021-006	24071773-006		7/19/2024 9:20:00 AM	7/24/2024 4:10:00 PM	Non-Potable Water
24072021-007	24071773-007		7/19/2024 8:55:00 AM	7/24/2024 4:10:00 PM	Non-Potable Water
24072021-008	24071773-008		7/19/2024 9:55:00 AM	7/24/2024 4:10:00 PM	Non-Potable Water



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# DATES REPORT

WO#: **24072021**  
**15-Aug-24**

**Client:** TEKLAB Inc,  
**Project:** 24071773

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24072021-001A	24071773-001	7/18/2024 2:25:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		8/8/2024 1:04:43 PM	8/14/2024 10:50:00 AM
				Radium-228 (EPA 904.0)		8/8/2024 1:04:43 PM	8/13/2024 2:21:00 PM
24072021-002A	24071773-002	7/19/2024 10:25:00 AM		Radium-226 (EPA 903.0)		8/8/2024 1:04:43 PM	8/14/2024 10:50:00 AM
				Radium-228 (EPA 904.0)		8/8/2024 1:04:43 PM	8/13/2024 2:21:00 PM
24072021-003A	24071773-003	7/19/2024 11:05:00 AM		Radium-226 (EPA 903.0)		8/8/2024 1:04:43 PM	8/14/2024 10:50:00 AM
				Radium-228 (EPA 904.0)		8/8/2024 1:04:43 PM	8/13/2024 2:21:00 PM
24072021-004A	24071773-004	7/19/2024 11:35:00 AM		Radium-226 (EPA 903.0)		8/8/2024 1:04:43 PM	8/14/2024 10:50:00 AM
				Radium-228 (EPA 904.0)		8/8/2024 1:04:43 PM	8/13/2024 2:21:00 PM
24072021-005A	24071773-005	7/18/2024 11:10:00 AM		Radium-226 (EPA 903.0)		8/8/2024 1:04:43 PM	8/14/2024 10:50:00 AM
				Radium-228 (EPA 904.0)		8/8/2024 1:04:43 PM	8/13/2024 2:21:00 PM
24072021-006A	24071773-006	7/19/2024 9:20:00 AM		Radium-226 (EPA 903.0)		8/9/2024 11:15:00 AM	8/13/2024 1:56:37 PM
				Radium-228 (EPA 904.0)		8/9/2024 11:15:00 AM	8/12/2024 2:17:28 PM
24072021-007A	24071773-007	7/19/2024 8:55:00 AM		Radium-226 (EPA 903.0)		8/9/2024 11:15:00 AM	8/13/2024 1:56:37 PM
				Radium-228 (EPA 904.0)		8/9/2024 11:15:00 AM	8/12/2024 2:17:28 PM
24072021-008A	24071773-008	7/19/2024 9:55:00 AM		Radium-226 (EPA 903.0)		8/9/2024 11:15:00 AM	8/13/2024 1:56:37 PM
				Radium-228 (EPA 904.0)		8/9/2024 11:15:00 AM	8/12/2024 2:17:28 PM

Original



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# Analytical Report

(consolidated)

WO#: 24072021

Date Reported: 8/15/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24071773  
**Lab ID:** 24072021-001  
**Client Sample ID:** 24071773-001

**Collection Date:** 7/18/2024 2:25:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RADIUM-226 (EPA 903.0)</b>					<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>
Radium-226	ND	1.00		pCi/L	± 0.160	1	8/14/2024 10:50:00 AM
Yield	1.00					1	8/14/2024 10:50:00 AM
<b>RADIUM-228 (EPA 904.0)</b>					<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>
Radium-228	ND	1.00		pCi/L	± 0.360	1	8/13/2024 2:21:00 PM
Yield	1.00					1	8/13/2024 2:21:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original



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# Analytical Report

(consolidated)

WO#: 24072021

Date Reported: 8/15/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24071773  
**Lab ID:** 24072021-002  
**Client Sample ID:** 24071773-002

**Collection Date:** 7/19/2024 10:25:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>	
Radium-226	ND	1.00		pCi/L	± 0.120	1	8/14/2024 10:50:00 AM
Yield	1.00					1	8/14/2024 10:50:00 AM
<b>RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>	
Radium-228	1.32	1.00		pCi/L	± 0.500	1	8/13/2024 2:21:00 PM
Yield	1.00					1	8/13/2024 2:21:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original



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# Analytical Report

(consolidated)

WO#: 24072021

Date Reported: 8/15/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24071773  
**Lab ID:** 24072021-003  
**Client Sample ID:** 24071773-003

**Collection Date:** 7/19/2024 11:05:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RADIUM-226 (EPA 903.0)</b>					<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>
Radium-226	ND	1.00		pCi/L	± 0.150	1	8/14/2024 10:50:00 AM
Yield	1.00					1	8/14/2024 10:50:00 AM
<b>RADIUM-228 (EPA 904.0)</b>					<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>
Radium-228	ND	1.00		pCi/L	± 0.420	1	8/13/2024 2:21:00 PM
Yield	0.820					1	8/13/2024 2:21:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		



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# Analytical Report

(consolidated)

WO#: 24072021

Date Reported: 8/15/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24071773  
**Lab ID:** 24072021-004  
**Client Sample ID:** 24071773-004

**Collection Date:** 7/19/2024 11:35:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RADIUM-226 (EPA 903.0)</b>					<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>
Radium-226	ND	1.00		pCi/L	± 0.160	1	8/14/2024 10:50:00 AM
Yield	1.00					1	8/14/2024 10:50:00 AM
<b>RADIUM-228 (EPA 904.0)</b>					<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>
Radium-228	ND	1.00		pCi/L	± 0.430	1	8/13/2024 2:21:00 PM
Yield	0.960					1	8/13/2024 2:21:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original



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# Analytical Report

(consolidated)

WO#: 24072021

Date Reported: 8/15/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24071773  
**Lab ID:** 24072021-005  
**Client Sample ID:** 24071773-005

**Collection Date:** 7/18/2024 11:10:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RADIUM-226 (EPA 903.0)</b>					<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>
Radium-226	ND	1.00		pCi/L	± 0.130	1	8/14/2024 10:50:00 AM
Yield	1.00					1	8/14/2024 10:50:00 AM
<b>RADIUM-228 (EPA 904.0)</b>					<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>
Radium-228	ND	1.00		pCi/L	± 0.360	1	8/13/2024 2:21:00 PM
Yield	1.00					1	8/13/2024 2:21:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original



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 Website: <http://www.settek.com>

# Analytical Report

(consolidated)

WO#: 24072021

Date Reported: 8/15/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24071773  
**Lab ID:** 24072021-006  
**Client Sample ID:** 24071773-006

**Collection Date:** 7/19/2024 9:20:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RADIUM-226 (EPA 903.0)</b>					<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>SMZ</b>
Radium-226	ND	1.00		pCi/L	± 0.130	1	8/13/2024 1:56:37 PM
Yield	1.00					1	8/13/2024 1:56:37 PM
<b>RADIUM-228 (EPA 904.0)</b>					<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>SMZ</b>
Radium-228	1.50	1.00		pCi/L	± 0.450	1	8/12/2024 2:17:28 PM
Yield	1.00					1	8/12/2024 2:17:28 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original



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# Analytical Report

(consolidated)

WO#: 24072021

Date Reported: 8/15/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24071773  
**Lab ID:** 24072021-007  
**Client Sample ID:** 24071773-007

**Collection Date:** 7/19/2024 8:55:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>SMZ</b>	
Radium-226	1.11	1.00		pCi/L	± 0.170	1	8/13/2024 1:56:37 PM
Yield	1.00					1	8/13/2024 1:56:37 PM
<b>RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>SMZ</b>	
Radium-228	ND	1.00		pCi/L	± 0.0900	1	8/12/2024 2:17:28 PM
Yield	0.950					1	8/12/2024 2:17:28 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original



Summit Environmental Technologies, Inc.  
 3310 Win St.  
 Cuyahoga Falls, Ohio 44223  
 TEL: (330) 253-8211 FAX: (330) 253-4489  
 Website: <http://www.settek.com>

# Analytical Report

(consolidated)

WO#: 24072021

Date Reported: 8/15/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24071773  
**Lab ID:** 24072021-008  
**Client Sample ID:** 24071773-008

**Collection Date:** 7/19/2024 9:55:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RADIUM-226 (EPA 903.0)</b>					<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>SMZ</b>
Radium-226	ND	1.00		pCi/L	± 0.100	1	8/13/2024 1:56:37 PM
Yield	1.00					1	8/13/2024 1:56:37 PM
<b>RADIUM-228 (EPA 904.0)</b>					<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>SMZ</b>
Radium-228	1.04	1.00		pCi/L	± 0.370	1	8/12/2024 2:17:28 PM
Yield	1.00					1	8/12/2024 2:17:28 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

Original



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## QC SUMMARY REPORT

WO#: 24072021

15-Aug-24

**Client:** TEKLAB Inc,

**Project:** 24071773

**BatchID:** 77611

Sample ID: <b>MB-77611</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/8/2024</b>	RunNo: <b>191336</b>						
Client ID: <b>PBW</b>	Batch ID: <b>77611</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>8/13/2024</b>	SeqNo: <b>5184976</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: <b>LCS-77611</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/8/2024</b>	RunNo: <b>191336</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>77611</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>8/13/2024</b>	SeqNo: <b>5184977</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.22	1.00	5.000	0	64.4	50	130				
Yield	1.00			0	0						

Sample ID: <b>LCSD-77611</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/8/2024</b>	RunNo: <b>191336</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>77611</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>8/13/2024</b>	SeqNo: <b>5184978</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.86	1.00	5.000	0	77.2	50	130	3.220	18.1	20	
Yield	1.00			0	0			1.000	0		

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits

ND Not Detected  
 RL Reporting Detection Limit



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# QC SUMMARY REPORT

WO#: 24072021  
 15-Aug-24

**Client:** TEKLAB Inc,  
**Project:** 24071773

**BatchID:** 77611

Sample ID: <b>24071657-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/8/2024</b>	RunNo: <b>191336</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>77611</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>8/13/2024</b>	SeqNo: <b>5184984</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits

ND Not Detected  
 RL Reporting Detection Limit



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# QC SUMMARY REPORT

WO#: 24072021  
 15-Aug-24

**Client:** TEKLAB Inc,  
**Project:** 24071773

**BatchID:** 77611

Sample ID: <b>MB-77611</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/8/2024</b>	RunNo: <b>191344</b>
Client ID: <b>PBW</b>	Batch ID: <b>77611</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>8/14/2024</b>	SeqNo: <b>5185101</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	ND	1.00			
Yield	1.00				

Sample ID: <b>LCS-77611</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/8/2024</b>	RunNo: <b>191344</b>
Client ID: <b>LCSW</b>	Batch ID: <b>77611</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>8/14/2024</b>	SeqNo: <b>5185102</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	4.25	1.00	5.000	0	85.0 70 130 QLR

Sample ID: <b>LCSD-77611</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/8/2024</b>	RunNo: <b>191344</b>
Client ID: <b>LCSS02</b>	Batch ID: <b>77611</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>8/14/2024</b>	SeqNo: <b>5185103</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	6.33	1.00	5.000	0	127 70 130 4.250 39.3 20 R

**Qualifiers:** H Holding times for preparation or analysis exceeded M Manual Integration used to determine area response ND Not Detected  
 PL Permit Limit R RPD outside accepted recovery limits RL Reporting Detection Limit  
 W Sample container temperature is out of limit as specified at testcode



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## QC SUMMARY REPORT

WO#: 24072021

15-Aug-24

**Client:** TEKLAB Inc,

**Project:** 24071773

**BatchID:** 77678

Sample ID: <b>MB-77678</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/9/2024</b>	RunNo: <b>191232</b>						
Client ID: <b>PBW</b>	Batch ID: <b>77678</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>8/12/2024</b>	SeqNo: <b>5182011</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.950			0	0						

Sample ID: <b>LCS-77678</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/9/2024</b>	RunNo: <b>191232</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>77678</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>8/12/2024</b>	SeqNo: <b>5182012</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.52	1.00	5.000	0	70.4	50	130				
Yield	1.00			0	0						

Sample ID: <b>LCSD-77678</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/9/2024</b>	RunNo: <b>191232</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>77678</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>8/12/2024</b>	SeqNo: <b>5182013</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.37	1.00	5.000	0	67.4	50	130	3.520	4.35	20	
Yield	1.00			0	0			1.000	0		

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits

ND Not Detected  
 RL Reporting Detection Limit



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## QC SUMMARY REPORT

WO#: 24072021  
 15-Aug-24

**Client:** TEKLAB Inc,  
**Project:** 24071773

**BatchID:** 77678

Sample ID: <b>24072138-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b> Units: <b>pCi/L</b>				Prep Date: <b>8/9/2024</b>			RunNo: <b>191232</b>		
Client ID: <b>BatchQC</b>	Batch ID: <b>77678</b>	TestNo: <b>E904.0</b>		<b>E903-904</b>		Analysis Date: <b>8/12/2024</b>			SeqNo: <b>5182018</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.04	1.00		0	0			0.8900	15.5	20	
Yield	1.00			0	0			1.000	0		

Sample ID: <b>24072140-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b> Units: <b>pCi/L</b>				Prep Date: <b>8/9/2024</b>			RunNo: <b>191232</b>		
Client ID: <b>BatchQC</b>	Batch ID: <b>77678</b>	TestNo: <b>E904.0</b>		<b>E903-904</b>		Analysis Date: <b>8/12/2024</b>			SeqNo: <b>5182020</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits

ND Not Detected  
 RL Reporting Detection Limit



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# QC SUMMARY REPORT

WO#: 24072021

15-Aug-24

**Client:** TEKLAB Inc,  
**Project:** 24071773

**BatchID:** 77678

Sample ID: <b>MB-77678</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/9/2024</b>	RunNo: <b>191239</b>
Client ID: <b>PBW</b>	Batch ID: <b>77678</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>8/13/2024</b>	SeqNo: <b>5182101</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	ND	1.00			
Yield	1.00				

Sample ID: <b>LCS-77678</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/9/2024</b>	RunNo: <b>191239</b>
Client ID: <b>LCSW</b>	Batch ID: <b>77678</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>8/13/2024</b>	SeqNo: <b>5182102</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	5.19	1.00	5.000	0	104 70 130

Sample ID: <b>LCSD-77678</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/9/2024</b>	RunNo: <b>191239</b>
Client ID: <b>LCSS02</b>	Batch ID: <b>77678</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>8/13/2024</b>	SeqNo: <b>5182103</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	4.93	1.00	5.000	0	98.6 70 130 5.190 5.14 20

Sample ID: <b>24072138-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/9/2024</b>	RunNo: <b>191239</b>
Client ID: <b>BatchQC</b>	Batch ID: <b>77678</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>8/13/2024</b>	SeqNo: <b>5182108</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits

ND Not Detected  
 RL Reporting Detection Limit



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## QC SUMMARY REPORT

WO#: **24072021**  
**15-Aug-24**

**Client:** TEKLAB Inc,  
**Project:** 24071773

**BatchID:** 77678

Sample ID: <b>24072138-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>8/9/2024</b>	RunNo: <b>191239</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>77678</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>8/13/2024</b>	SeqNo: <b>5182108</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

**Qualifiers:**  
H Holding times for preparation or analysis exceeded  
PL Permit Limit  
W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
R RPD outside accepted recovery limits

ND Not Detected  
RL Reporting Detection Limit

**TEKLAB, INC. Chain of Custody**

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES  NO  With:  Ice  Blue Ice Preserved in:  Lab  Field

Teklab Inc  
5445 Horseshoe Lake Road  
Collinsville, IL 62234

19.9+0.0=

Cooler Temp: 19.9°C

Sampler: Client

QC Level: 2

*Fedex, cooler*

Comments: **Please issue reports and invoices via email only**  
Please analyze for Radium 226 and 228 per your usual methods on your standard TAT  
Any changes to methods must be approved by Teklab, Inc.  
Batch QC is required for all analyses requested. State of sample origin: ILLINOIS

Project# 24071773

Contact: Shelly Hennessy

Email: shennessy@teklabinc.com

Requested Due Date: Standard TAT

Billing/PO: 36675

Phone: (618) 344-1044 x 36

**PLEASE NOTE:**

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228										
	24071773-001	7/18/2024 14:25	HNO3	Groundwater	✓										
	24071773-002	7/19/2024 10:25	HNO3	Groundwater	✓										
	24071773-003	7/19/2024 11:05	HNO3	Groundwater	✓										
	24071773-004	7/19/2024 11:35	HNO3	Groundwater	✓										
	24071773-005	7/18/2024 11:10	HNO3	Groundwater	✓										
	24071773-006	7/19/2024 09:20	HNO3	Groundwater	✓										
	24071773-007	7/19/2024 08:55	HNO3	Groundwater	✓										
	24071773-008	7/19/2024 09:55	HNO3	Groundwater	✓										
			Unpres	Aqueous											
			Unpres	Aqueous											
			Unpres	Aqueous											

*Relinquished By	Date/Time	Received By	Date/Time
<i>Paul Kelly</i>	<u>7/23/24</u>	<i>[Signature]</i>	<u>7/24</u>
			<u>7/27/24</u>
		<i>[Signature]</i>	<u>7/24/24 1610</u>

Page 21 of 22 *Fedex cooler w/o ice 19.9+0 = 19.9*



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 Website: http://www.settek.com

# Sample Log-In Check List

Client Name: TEK-IL-62234-A

Work Order Number: 24072021

RcptNo: 1

Logged by:	Tegan A. Richards	7/24/2024 4:10:00 PM	<i>Tegan Richards</i>
Completed By:	Tegan A. Richards	7/27/2024 2:33:05 PM	<i>Tegan Richards</i>
Reviewed By:	Jennifer Woolf	7/29/2024 1:08:54 PM	<i>Jennifer Woolf</i>

**Chain of Custody**

- 1. Is Chain of Custody complete? Yes  No  Not Present
- 2. How was the sample delivered? FedEx

**Log In**

- 3. Coolers are present? Yes  No  NA
- 4. Shipping container/cooler in good condition? Yes  No
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- No. Seal Date: Signed By:
- 5. Was an attempt made to cool the samples? Yes  No  NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- Not required
- 7. Sample(s) in proper container(s)? Yes  No
- 8. Sufficient sample volume for indicated test(s)? Yes  No
- 9. Are samples (except VOA and ONG) properly preserved? Yes  No
- 10. Was preservative added to bottles? Yes  No  NA
- 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials
- 12. Were any sample containers received broken? Yes  No
- 13. Does paperwork match bottle labels? Yes  No   
(Note discrepancies on chain of custody)
- 14. Are matrices correctly identified on Chain of Custody? Yes  No
- 15. Is it clear what analyses were requested? Yes  No
- 16. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

**Special Handling (if applicable)**

- 17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

- 18. Additional remarks:

**Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	19.9	Good	Not Present			

**ATTACHMENT B**

Arsenic Background Value Calculations

Laboratory Analytical Reports

October 29, 2024

Mr. P.J. Becker  
Environmental Health and Safety  
City Water, Light and Power  
3100 Stevenson Drive  
Springfield, Illinois 62712

re: City Water, Light and Power – CCR Surface Impoundments  
Background Concentration for Total Arsenic

Dear Mr. Becker:

Provided herein is the background concentration for total arsenic utilizing data from eight consecutive sampling events from wells AP-4 and AP-5. The calculation and data are provided in Attachment A. As shown, the Shapiro-Wilk test method was used to determine the data population normality. The statistic  $W$  was below both the lower 1% and 5% Critical Values and therefore the data was determined to be non-parametric. As such, the statistical background concentration is the highest of the data set (0.0375 mg/L). The laboratory reports with the total arsenic concentrations are provided in Attachment B.

The statistical method utilized for derivation of the total arsenic concentration is consistent with that used for calculation of the existing background concentrations. However, a certification from a qualified engineer is provided in Attachment C stating the statistical method for calculation of the total arsenic background concentration is appropriate for the subject data pursuant to 40 CFR Section 257.93(f)(6) and 35 Ill. Adm. Code Section 845.640(f)(2).

If you have any questions, please contact me at (217) 787-2334. Thank you.

Sincerely,



Brad Hunsberger, L.P.G.  
Vice President

BJH:tsh

Enclosure

cc: Doug Mauntel – Andrews Engineering, Inc.

ATTACHMENT A  
STATISTICAL CALCULATION

**City Water, Light and Power**

**Power Plant Ash Impoundment**

**Background Calculations - Interwell Prediction Limits**

**40 CFR 257 Appendix IV Parameter, Total Arsenic**

**Summary**

Well	Parameter	Units	7/7/23	10/26/23	2/22/24	4/25/24	5/13/24	6/12/24	7/26/24	8/12/24	Distribution <sup>[1]</sup>	Proposed Background Value
AP-4	Arsenic, total	ug/L	23.9	22.5	37.5	19.8	22.9	21.8	21.3	20.7	[2] Non-Parametric - Propose Highest Detected Concentration as Prediction Limit/Background	37.50
AP-5	Arsenic, total	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1		

Notes:

1. Shapiro-Wilk method utilized to determine if the data set follows a normal distribution.
2. In accordance with Chapter 18.3 of the March 2009 Unified Guidance (Statistical Analysis of Groundwater at RCRA Facilities), the maximum detected concentration is utilized as the interwell prediction limit and proposed background when the dataset does not follow a normal distribution.

### Shapiro-Wilk Normality Test

I	II	III	IV	V	VI
<i>i</i>	Result Min → Max	Result Max → Min	= III - II	Coefficients	= IV x V
1	1	37.5	36.5	0.5056	18.454
2	1	23.9	22.9	0.329	7.534
3	1	22.9	21.9	0.2521	5.521
4	1	22.5	21.5	0.1939	4.169
5	1	21.8	20.8	0.1447	3.010
6	1	21.3	20.3	0.1005	2.040
7	1	20.7	19.7	0.0593	1.168
8	1	19.8	18.8	0.0196	0.368
9	19.8	1	-18.8		0.000
10	20.7	1	-19.7		0.000
11	21.3	1	-20.3		0.000
12	21.8	1	-20.8		0.000
13	22.5	1	-21.5		0.000
14	22.9	1	-21.9		0.000
15	23.9	1	-22.9		0.000
16	37.5	1	-36.5		0.000
				<b>b =</b>	<b>42.265</b>

$k = 8$   
 $S = 12.397$

$W_{.05,16} = 0.887$   
 $W_{.01,16} = 0.844$

$\text{sqrt}(16-1) = 3.872983346$   
 $W = \mathbf{0.7748}$   
**FAIL**

Coefficient Source (V): Table 10-2 of *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance*, March 2009.

$b$  = weighted sum of the differences between the most extreme observations.

$k = n / 2$

$S$  = Standard Deviation of sample results

$W_{.05,16}$  and  $W_{.01,16}$  Source: Table 10-3 of *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance March 2009*.

$W$  = Shapiro-Wilk test statistic =  $\left( \frac{b}{S\sqrt{n-1}} \right)^2$

ATTACHMENT B  
LABORATORY REPORTS FOR ARSENIC DATA

August 16, 2023

Eric Staley  
City Water, Light & Power  
3100 Stevenson Drive  
2nd Floor Maintenance Building  
Springfield, IL 62712  
TEL: (217) 757-8610  
FAX: (217) 757-8615



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Ash Pond Monitoring Wells

**WorkOrder:** 23070002

Dear Eric Staley:

TEKLAB, INC received 15 samples on 7/7/2023 4:44:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
[SHennessy@teklabinc.com](mailto:SHennessy@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

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**Client:** City Water, Light & Power

**Work Order:** 23070002

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 16-Aug-23

---

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	25
Chain of Custody	Appended

**Client:** City Water, Light & Power

**Work Order:** 23070002

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 16-Aug-23

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** City Water, Light & Power

**Work Order:** 23070002

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 16-Aug-23

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

**Client:** City Water, Light & Power

**Work Order:** 23070002

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 16-Aug-23

**Cooler Receipt Temp:** 5.2 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

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**Locations**

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**Collinsville**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

---

**Collinsville Air**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

---

**Springfield**

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

---

**Chicago**

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

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**Kansas City**

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power

**Work Order:** 23070002

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 16-Aug-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: City Water, Light & Power  
 Client Project: Ash Pond Monitoring Wells  
 Lab ID: 23070002-005  
 Matrix: GROUNDWATER

Work Order: 23070002  
 Report Date: 16-Aug-23

Client Sample ID: AP-4

Collection Date: 07/07/2023 11:42

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>								
Bottom of well elevation	*	0		492.46	ft	1	07/07/2023 11:42	R332756
Depth to water	*	-5.00		5.81	ft	1	07/07/2023 11:42	R332756
Depth to water from measuring point	*	0		8.95	ft	1	07/07/2023 11:42	R332756
Elevation of groundwater surface	*	0		546.65	ft	1	07/07/2023 11:42	R332756
Measuring Point Elevation	*	0		555.60	ft	1	07/07/2023 11:42	R332756
Measuring Point Height Above Land Surface	*	0		3.14	ft	1	07/07/2023 11:42	R332756
<b>STANDARD METHODS 2130 B FIELD</b>								
Turbidity	*	1.0		16	NTU	1	07/07/2023 11:42	R332756
<b>STANDARD METHODS 2550 B FIELD</b>								
Temperature	*	0		70.5	°F	1	07/07/2023 11:42	R332756
<b>SW-846 9040B</b>								
pH, Field	*	1.00		6.86		1	07/07/2023 11:42	R332756
<b>SW-846 9050A</b>								
Spec. Conductance, Field	*	1.00		875	µmhos/cm @25C	1	07/07/2023 11:42	R332756
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>								
Total Dissolved Solids	NELAP	50		560	mg/L	2.5	07/11/2023 10:30	R331470
<b>SW-846 9036 (TOTAL)</b>								
Sulfate	NELAP	10		< 10	mg/L	1	07/24/2023 14:50	R333047
<b>SW-846 9214 (TOTAL)</b>								
Fluoride	NELAP	0.10		0.14	mg/L	1	07/11/2023 13:03	R331398
<b>SW-846 9251 (TOTAL)</b>								
Chloride	NELAP	4		13	mg/L	1	07/24/2023 14:51	R333070
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Barium	NELAP	0.0025		0.396	mg/L	1	07/11/2023 18:33	208261
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	07/11/2023 18:33	208261
Boron	NELAP	0.0200		0.0845	mg/L	1	07/12/2023 20:36	208261
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	07/11/2023 18:33	208261
Calcium	NELAP	0.100	B	132	mg/L	1	07/11/2023 18:33	208261
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	07/11/2023 18:33	208261
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	07/11/2023 18:33	208261
Lead	NELAP	0.0150		< 0.0150	mg/L	1	07/11/2023 18:33	208261
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	07/11/2023 18:33	208261
<i>Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>								
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	07/12/2023 3:24	208261
Arsenic	NELAP	0.0010		0.0239	mg/L	5	07/12/2023 3:24	208261
Lithium	*	0.0030		0.0078	mg/L	5	07/17/2023 12:37	208261
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	07/12/2023 3:24	208261
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	07/12/2023 3:24	208261
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	07/11/2023 15:35	208286
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-226	*	0		See Attached	pci/L	1	07/24/2023 15:18	R335080
Radium-228	*	0		See Attached	pci/L	1	07/24/2023 15:18	R335080



# Laboratory Results

<http://www.teklabinc.com/>

Client: City Water, Light & Power  
 Client Project: Ash Pond Monitoring Wells  
 Lab ID: 23070002-006  
 Matrix: GROUNDWATER

Work Order: 23070002  
 Report Date: 16-Aug-23

Client Sample ID: AP-5

Collection Date: 07/07/2023 13:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>								
Bottom of well elevation	*	0		552.63	ft	1	07/07/2023 13:12	R332756
Depth to water	*	-5.00		11.78	ft	1	07/07/2023 13:12	R332756
Depth to water from measuring point	*	0		14.08	ft	1	07/07/2023 13:12	R332756
Elevation of groundwater surface	*	0		569.82	ft	1	07/07/2023 13:12	R332756
Measuring Point Elevation	*	0		583.90	ft	1	07/07/2023 13:12	R332756
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	07/07/2023 13:12	R332756
<b>STANDARD METHODS 2130 B FIELD</b>								
Turbidity	*	1.0		1.7	NTU	1	07/07/2023 13:12	R332756
<b>STANDARD METHODS 2550 B FIELD</b>								
Temperature	*	0		55.0	°F	1	07/07/2023 13:12	R332756
<b>SW-846 9040B</b>								
pH, Field	*	1.00		7.16		1	07/07/2023 13:12	R332756
<b>SW-846 9050A</b>								
Spec. Conductance, Field	*	1.00		653	µmhos/cm @25C	1	07/07/2023 13:12	R332756
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>								
Total Dissolved Solids	NELAP	20		400	mg/L	1	07/11/2023 10:30	R331470
<b>SW-846 9036 (TOTAL)</b>								
Sulfate	NELAP	10		43	mg/L	1	07/24/2023 14:59	R333047
<b>SW-846 9214 (TOTAL)</b>								
Fluoride	NELAP	0.10		0.31	mg/L	1	07/11/2023 13:06	R331398
<b>SW-846 9251 (TOTAL)</b>								
Chloride	NELAP	4		4	mg/L	1	07/24/2023 14:59	R333070
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Barium	NELAP	0.0025		0.0461	mg/L	1	07/11/2023 18:44	208261
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	07/11/2023 18:44	208261
Boron	NELAP	0.0200		0.0323	mg/L	1	07/15/2023 16:20	208261
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	07/11/2023 18:44	208261
Calcium	NELAP	0.100	BS	96.3	mg/L	1	07/11/2023 18:44	208261
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	07/11/2023 18:44	208261
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	07/11/2023 18:44	208261
Lead	NELAP	0.0150		< 0.0150	mg/L	1	07/11/2023 18:44	208261
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	07/11/2023 18:44	208261
<i>Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>								
<i>Matrix spike control limits for are not applicable due to high sample/spike ratio.</i>								
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	07/12/2023 3:41	208261
Arsenic	NELAP	0.0010		< 0.0010	mg/L	5	07/12/2023 3:41	208261
Lithium	*	0.0030		0.0046	mg/L	5	07/18/2023 8:56	208261
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	07/12/2023 3:41	208261
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	07/12/2023 3:41	208261
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	07/12/2023 8:24	208286
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-226	*	0		See Attached	pci/L	1	07/26/2023 16:09	R335080



# Receiving Check List

<http://www.teklabinc.com/>

Client: City Water, Light & Power

Work Order: 23070002

Client Project: Ash Pond Monitoring Wells

Report Date: 16-Aug-23

Carrier: Tracy Carroll

Received By: ANC

Completed by:

*Allison Coler*

Reviewed by:

*Ellie Hopkins*

On:

10-Jul-23

Allison Colin

On:

10-Jul-23

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- |   |   |   |  |                                  |
|---|---|---|--|----------------------------------|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             | Not Present <input type="checkbox"/>   | Temp °C <b>5.2</b>               |
| Type of thermal preservation?                           | None <input type="checkbox"/>           | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/>      | Dry Ice <input type="checkbox"/> |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Reported field parameters measured:                     | Field <input type="checkbox"/>          | Lab <input type="checkbox"/>            | NA <input checked="" type="checkbox"/> |                                  |
| Container/Temp Blank temperature in compliance?         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- |   |                              |  |   |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace?  | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | No VOA vials <input checked="" type="checkbox"/>      |
| Water - TOX containers have zero headspace?               | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt?                       | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/>                           |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/>                |

**Any No responses must be detailed below or on the COC.**

pH strip #90719. - acoln - 7/10/2023 9:09:38 AM

Additional nitric acid (90404) was needed in AP2 2L, AP3 2L, AP4 2L, AP8 2L, AP9 2L, AP10 2L, AP12 250 & 2L upon arrival at the laboratory. - acoln - 7/10/2023 9:09:41 AM

Samples collected on 7/7/23 were delivered to the laboratory on 7/7/23 at 1644 (on ice - 5.2C - LTG#1). pH strip #90719 - ERH 7/10/23

# CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>City Water, Light &amp; Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax:				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>5.2 °C</u> <u>57.5</u> Preserved in: <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: <u>pm 9/19/08 7-6-23</u>														
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file				Client Comments: *elevations, pH, conductivity, temperature **Sb As Se TI (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring														
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>		SAMPLE COLLECTOR'S NAME <u>J Carroll</u>		# and Type of Containers		INDICATE ANALYSIS REQUESTED												
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS		UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
Lab Use Only	Sample ID	Date/Time Sampled	Matrix															
<u>23070002-001</u>	<u>RW-3</u>	<u>7/6/23 1223</u>	<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>002</u>	<u>AP-1</u>		<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>003</u>	<u>AP-2</u>		<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>004</u>	<u>AP-3</u>		<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>005</u>	<u>AP-4</u>		<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>006</u>	<u>AP-5</u>		<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>007</u>	<u>AP-6</u>	<u>7/6/23 1330</u>	<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>008</u>	<u>AP-7</u>		<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>009</u>	<u>AP-8</u>		<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>010</u>	<u>AP-9</u>		<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>011</u>	<u>AP-10</u>		<u>Groundwater</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Relinquished By		Date/Time		Received By				Date/Time										
<u>Jeaney Carroll</u>		<u>7/6/23 1703</u>		<u>[Signature]</u>				<u>7-6-23 1723</u>										

\*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

[Signature] 7-6-23





November 27, 2023

Eric Staley  
City Water, Light & Power  
3100 Stevenson Drive  
2nd Floor Maintenance Building  
Springfield, IL 62712  
TEL: (217) 757-8610  
FAX: (217) 757-8615



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Ash Pond Monitoring Wells

**WorkOrder:** 23101164

Dear Eric Staley:

TEKLAB, INC received 15 samples on 10/25/2023 5:15:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
[SHennessy@teklabinc.com](mailto:SHennessy@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

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**Client:** City Water, Light & Power

**Work Order:** 23101164

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 27-Nov-23

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**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
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Accreditations	6
Laboratory Results	7
Receiving Check List	22
Chain of Custody	Appended

**Client:** City Water, Light & Power

**Work Order:** 23101164

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 27-Nov-23

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** City Water, Light & Power

**Work Order:** 23101164

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 27-Nov-23

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells

**Work Order:** 23101164  
**Report Date:** 27-Nov-23

**Cooler Receipt Temp:** 4.8 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & Radium-228 analyses were performed by Summit Environmental Technologies, Inc. See attached report for results.

**Locations**

**Collinsville**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

**Collinsville Air**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

**Springfield**

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

**Chicago**

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

**Kansas City**

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power

**Work Order:** 23101164

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 27-Nov-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: City Water, Light & Power  
 Client Project: Ash Pond Monitoring Wells  
 Lab ID: 23101164-005  
 Matrix: GROUNDWATER

Work Order: 23101164  
 Report Date: 27-Nov-23

Client Sample ID: AP-4

Collection Date: 10/26/2023 14:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>								
Bottom of well elevation	*	0		492.46	ft	1	10/26/2023 14:06	R338505
Depth to water	*	-5.00		7.65	ft	1	10/26/2023 14:06	R338505
Depth to water from measuring point	*	0		10.79	ft	1	10/26/2023 14:06	R338505
Elevation of groundwater surface	*	0		544.81	ft	1	10/26/2023 14:06	R338505
Measuring Point Elevation	*	0		555.60	ft	1	10/26/2023 14:06	R338505
Measuring Point Height Above Land Surface	*	0		3.14	ft	1	10/26/2023 14:06	R338505
<b>STANDARD METHODS 2130 B FIELD</b>								
Turbidity	*	1.0		8.8	NTU	1	10/26/2023 14:06	R338505
<b>STANDARD METHODS 2550 B FIELD</b>								
Temperature	*	0		66.4	°F	1	10/26/2023 14:06	R338505
<b>SW-846 9040B</b>								
pH, Field	*	1.00		6.99		1	10/26/2023 14:06	R338505
<b>SW-846 9050A</b>								
Spec. Conductance, Field	*	1.00		866	µmhos/cm @25C	1	10/26/2023 14:06	R338505
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>								
Total Dissolved Solids	NELAP	50		420	mg/L	2.5	10/31/2023 10:26	R338603
<b>SW-846 9036 (TOTAL)</b>								
Sulfate	NELAP	10		< 10	mg/L	1	10/30/2023 14:29	R338498
<b>SW-846 9214 (TOTAL)</b>								
Fluoride	NELAP	0.10		0.16	mg/L	1	11/02/2023 15:00	R338693
<b>SW-846 9251 (TOTAL)</b>								
Chloride	NELAP	4		14	mg/L	1	10/30/2023 14:29	R338509
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Barium	NELAP	0.0025		0.381	mg/L	1	10/31/2023 17:50	213879
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	10/31/2023 17:50	213879
Boron	NELAP	0.0200		0.0841	mg/L	1	11/01/2023 12:57	213879
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	10/31/2023 17:50	213879
Calcium	NELAP	0.100		118	mg/L	1	10/31/2023 17:50	213879
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	10/31/2023 17:50	213879
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	10/31/2023 17:50	213879
Lead	NELAP	0.0150		< 0.0150	mg/L	1	10/31/2023 17:50	213879
Lithium	NELAP	0.0050		0.0051	mg/L	1	10/31/2023 17:50	213879
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	10/31/2023 17:50	213879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/01/2023 11:03	213879
Arsenic	NELAP	0.0010		0.0225	mg/L	5	11/01/2023 11:03	213879
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/01/2023 11:03	213879
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/01/2023 11:03	213879
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	10/31/2023 14:47	213968
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-226	*	0		See Attached	pci/L	1	11/10/2023 0:00	R339727
Radium-228	*	0		See Attached	pci/L	1	11/10/2023 0:00	R339727



# Laboratory Results

<http://www.teklabinc.com/>

Client: City Water, Light & Power  
 Client Project: Ash Pond Monitoring Wells  
 Lab ID: 23101164-006  
 Matrix: GROUNDWATER

Work Order: 23101164  
 Report Date: 27-Nov-23

Client Sample ID: AP-5  
 Collection Date: 10/26/2023 14:44

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>								
Bottom of well elevation	*	0		552.63	ft	1	10/26/2023 14:44	R338505
Depth to water	*	-5.00		15.87	ft	1	10/26/2023 14:44	R338505
Depth to water from measuring point	*	0		18.17	ft	1	10/26/2023 14:44	R338505
Elevation of groundwater surface	*	0		565.73	ft	1	10/26/2023 14:44	R338505
Measuring Point Elevation	*	0		583.90	ft	1	10/26/2023 14:44	R338505
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	10/26/2023 14:44	R338505
<b>STANDARD METHODS 2130 B FIELD</b>								
Turbidity	*	1.0		2.0	NTU	1	10/26/2023 14:44	R338505
<b>STANDARD METHODS 2550 B FIELD</b>								
Temperature	*	0		57.9	°F	1	10/26/2023 14:44	R338505
<b>SW-846 9040B</b>								
pH, Field	*	1.00		7.17		1	10/26/2023 14:44	R338505
<b>SW-846 9050A</b>								
Spec. Conductance, Field	*	1.00		653	µmhos/cm @25C	1	10/26/2023 14:44	R338505
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>								
Total Dissolved Solids	NELAP	20		396	mg/L	1	10/31/2023 10:26	R338603
<b>SW-846 9036 (TOTAL)</b>								
Sulfate	NELAP	10		45	mg/L	1	10/30/2023 14:38	R338498
<b>SW-846 9214 (TOTAL)</b>								
Fluoride	NELAP	0.10		0.37	mg/L	1	11/02/2023 16:05	R338693
<b>SW-846 9251 (TOTAL)</b>								
Chloride	NELAP	4		5	mg/L	1	10/30/2023 14:37	R338509
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Barium	NELAP	0.0025		0.0471	mg/L	1	10/31/2023 18:12	213879
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	10/31/2023 18:12	213879
Boron	NELAP	0.0200		0.0455	mg/L	1	10/31/2023 18:12	213879
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	10/31/2023 18:12	213879
Calcium	NELAP	0.100		90.7	mg/L	1	10/31/2023 18:12	213879
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	10/31/2023 18:12	213879
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	10/31/2023 18:12	213879
Lead	NELAP	0.0150		< 0.0150	mg/L	1	10/31/2023 18:12	213879
Lithium	NELAP	0.0050		< 0.0050	mg/L	1	10/31/2023 18:12	213879
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	10/31/2023 18:12	213879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/01/2023 11:37	213879
Arsenic	NELAP	0.0010		< 0.0010	mg/L	5	11/01/2023 11:37	213879
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/01/2023 11:37	213879
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/01/2023 11:37	213879
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	10/31/2023 14:50	213968
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-226	*	0		See Attached	pci/L	1	11/10/2023 0:00	R339727
Radium-228	*	0		See Attached	pci/L	1	11/10/2023 0:00	R339727



# Receiving Check List

<http://www.teklabinc.com/>

Client: City Water, Light & Power

Work Order: 23101164

Client Project: Ash Pond Monitoring Wells

Report Date: 27-Nov-23

Carrier: Justin Colp

Received By: HAW

Completed by:

Reviewed by:

On:

26-Oct-23

Timothy W. Mathis

On:

27-Oct-23

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **4.8**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

pH strip #90719 CET. - TMathis - 10/26/2023 12:47:39 PM

pH strip #90719. - amberdilallo - 10/27/2023 9:49:59 AM

Samples collected on 10/26/23 were delivered to the laboratory on 10/26/23 at 1707 (on ice - 2.6C - LTG1). - HW/ERH 10/27/23

**CHAIN OF CUSTODY**

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power  
 Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building  
 City/State/Zip: Springfield IL 62712  
 Contact: Eric Staley Phone: (217) 757-8610  
 Email: eric.staley@cwlp.com Fax:

Samples on:  ICE  BLUE ICE  NO ICE 4.8 °C  
 Preserved in:  LAB  FIELD FOR LAB USE ONLY  
 LAB NOTES: plw 9079-05 10-26-23  
XTE # 1116123

Are these samples known to be involved in litigation? If yes, a surcharge will apply:  Yes  No  
 Are these samples known to be hazardous?  Yes  No  
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section:  Yes  No Permit on file

**Client Comments:**  
 \*elevations, pH, conductivity, temperature  
 \*\*Sb As Se TI (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo  
 Quarterly monitoring

**PROJECT NAME/NUMBER**  
Ash Pond Monitoring Wells

**SAMPLE COLLECTOR'S NAME**  
Justin Colp

**RESULTS REQUESTED**  
 Standard  1-2 Day (100% Surcharge)  
 Other  3 Day (50% Surcharge)

**BILLING INSTRUCTIONS**

**# and Type of Containers**      **INDICATE ANALYSIS REQUESTED**

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
<u>23101164-001</u>	<u>RW-3</u>	<u>10-25-23 / 1235</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>002</u>	<u>AP-1</u>	<u>1234</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>003</u>	<u>AP-2</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>004</u>	<u>AP-3</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>005</u>	<u>AP-4</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>006</u>	<u>AP-5</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>007</u>	<u>AP-6</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>008</u>	<u>AP-7</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>009</u>	<u>AP-8</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>010</u>	<u>AP-9</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>011</u>	<u>AP-10</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Relinquished By	Date/Time	Received By	Date/Time
<u>J. Colp</u>	<u>10-25-23 1715</u>	<u>[Signature]</u>	<u>10/26/23 1715</u>

\*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

Colp 10-21-23

# CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>City Water, Light &amp; Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax: _____				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>2d</u> °C Preserved in: <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: <u>9079</u> <u>OTE SA 11/6/23</u> <u>Own 10/27/23</u>														
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file				Client Comments: *elevations, pH, conductivity, temperature **Sb As Se TI (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring														
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>		SAMPLE COLLECTOR'S NAME <u>Justin Gb</u>		# and Type of Containers		INDICATE ANALYSIS REQUESTED												
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 12 Day (100% Surcharge) <input type="checkbox"/> Other _____ <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS		UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
Lab Use Only	Sample ID	Date/Time Sampled	Matrix															
	<u>23101164-001</u>	<u>RW-3</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>002</u>	<u>AP-1</u>	<u>Groundwater</u>	<u>10-26-23</u>	<u>1222</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>003</u>	<u>AP-2</u>	<u>Groundwater</u>	<u>1305</u>									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>004</u>	<u>AP-3</u>	<u>Groundwater</u>	<u>* 138525</u>									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>005</u>	<u>AP-4</u>	<u>Groundwater</u>	<u>1406</u>									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>006</u>	<u>AP-5</u>	<u>Groundwater</u>	<u>1444</u>									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>007</u>	<u>AP-6</u>	<u>Groundwater</u>	<u>0909</u>									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>008</u>	<u>AP-7</u>	<u>Groundwater</u>	<u>10-26-23</u>	<u>1358</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>009</u>	<u>AP-8</u>	<u>Groundwater</u>	<u>10-26-23</u>	<u>0930</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>010</u>	<u>AP-9</u>	<u>Groundwater</u>	<u>10-26-23</u>	<u>1446</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>011</u>	<u>AP-10</u>	<u>Groundwater</u>	<u>10-26-23</u>	<u>1243</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Relinquished By		Date/Time		Received By		Date/Time												
<u>[Signature]</u>		<u>10-26-23 17:07</u>		<u>[Signature]</u>		<u>10/26/23 1707</u>												

\*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions



Site Sampling Event: CWLP- 4Q 2023

LIMS Workorder: 23101164

Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters

CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond ( $\mu\text{S}/\text{cm}$ )	Sp Cond ( $\mu\text{mhos}/\text{cm @25C}$ )	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-4	10/26/2023	14:00	10.79	19.3	66.7	7.51	826.2	826.2	3.93	21.58	-44.8
AP-4	10/26/2023	14:03	10.79	19.0	66.2	7.06	856.2	856.2	2.63	14.79	-68.6
AP-4	10/26/2023	14:06	10.79	19.1	66.4	6.99	865.9	865.9	1.78	8.84	-91.3

Site Sampling Event: CWLP- 4Q 2023

LIMS Workorder: 23101164

Technician(s): JC, BG

Groundwater Sampling Field Form- Groundwater Quality Parameters

CWLP- 4Q 2023

Well ID	Date	Time	DTW	Temp (deg C)	Temp (deg F)	pH (SU)	Sp Cond ( $\mu\text{S}/\text{cm}$ )	Sp Cond ( $\mu\text{mhos}/\text{cm @25C}$ )	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-5	10/26/2023	14:38	18.17	14.5	58.1	7.25	649.9	649.9	3.96	2.79	-2.9
AP-5	10/26/2023	14:41	18.17	14.4	57.9	7.20	649.3	649.3	3	2.62	-2.6
AP-5	10/26/2023	14:44	18.17	14.4	57.9	7.17	652.7	652.7	2.61	2.05	-2.3

March 18, 2024

Eric Staley  
City Water, Light & Power  
3100 Stevenson Drive  
2nd Floor Maintenance Building  
Springfield, IL 62712  
TEL: (217) 757-8610  
FAX: (217) 757-8615



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Ash Pond Monitoring Wells

**WorkOrder:** 24010117

Dear Eric Staley:

TEKLAB, INC received 15 samples on 2/26/2024 6:45:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
[SHennessy@teklabinc.com](mailto:SHennessy@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

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**Client:** City Water, Light & Power

**Work Order:** 24010117

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 18-Mar-24

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**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	27
Chain of Custody	Appended

**Client:** City Water, Light & Power

**Work Order:** 24010117

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 18-Mar-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** City Water, Light & Power

**Work Order:** 24010117

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 18-Mar-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells

**Work Order:** 24010117  
**Report Date:** 18-Mar-24

**Cooler Receipt Temp:** 3.3 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

**Locations**

**Collinsville**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

**Collinsville Air**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

**Springfield**

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

**Chicago**

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

**Kansas City**

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power

**Work Order:** 24010117

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 18-Mar-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: City Water, Light & Power  
 Client Project: Ash Pond Monitoring Wells  
 Lab ID: 24010117-005  
 Matrix: GROUNDWATER

Work Order: 24010117  
 Report Date: 18-Mar-24

Client Sample ID: AP-4

Collection Date: 02/23/2024 11:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>								
Bottom of well elevation	*	0		492.46	ft	1	02/23/2024 11:21	R343702
Depth to water	*	-5.00		5.90	ft	1	02/23/2024 11:21	R343702
Depth to water from measuring point	*	0		9.04	ft	1	02/23/2024 11:21	R343702
Elevation of groundwater surface	*	0		546.56	ft	1	02/23/2024 11:21	R343702
Measuring Point Elevation	*	0		555.60	ft	1	02/23/2024 11:21	R343702
Measuring Point Height Above Land Surface	*	0		3.14	ft	1	02/23/2024 11:21	R343702
<b>STANDARD METHODS 2130 B FIELD</b>								
Turbidity	*	1.0		38	NTU	1	02/23/2024 11:21	R343702
<b>STANDARD METHODS 2550 B FIELD</b>								
Temperature	*	0		59.9	°F	1	02/23/2024 11:21	R343702
<b>SW-846 9040B</b>								
pH, Field	*	1.00		6.86		1	02/23/2024 11:21	R343702
<b>SW-846 9050A</b>								
Spec. Conductance, Field	*	1.00		847	µmhos/cm @25C	1	02/23/2024 11:21	R343702
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>								
Total Dissolved Solids	NELAP	50		520	mg/L	2.5	02/26/2024 10:02	R343638
<b>SW-846 9036 (TOTAL)</b>								
Sulfate	NELAP	10		11	mg/L	1	02/28/2024 16:56	R343726
<b>SW-846 9214 (TOTAL)</b>								
Fluoride	NELAP	0.10		0.16	mg/L	1	02/26/2024 13:04	R343547
<b>SW-846 9251 (TOTAL)</b>								
Chloride	NELAP	4		13	mg/L	1	02/28/2024 16:56	R343732
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Barium	NELAP	0.0025		0.390	mg/L	1	02/27/2024 13:38	219154
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/27/2024 13:38	219154
Boron	NELAP	0.0200		0.0871	mg/L	1	02/27/2024 13:38	219154
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/27/2024 13:38	219154
Calcium	NELAP	0.100		119	mg/L	1	02/27/2024 13:38	219154
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/27/2024 13:38	219154
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/27/2024 13:38	219154
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/27/2024 13:38	219154
Lithium	NELAP	0.0050		0.0076	mg/L	1	02/27/2024 13:38	219154
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/27/2024 13:38	219154
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Antimony	NELAP	0.0010	B	< 0.0010	mg/L	5	02/28/2024 16:03	219154
Arsenic	NELAP	0.0010		0.0375	mg/L	5	02/28/2024 16:03	219154
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/28/2024 16:03	219154
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/28/2024 16:03	219154
<i>Contamination present in the MBLK for Sb. Sample results below the reporting limit are reportable per the TNI Standard.</i>								
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/29/2024 17:17	219164
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-226	*	0		See Attached	pci/L	1	03/08/2024 0:00	R344494
Radium-228	*	0		See Attached	pci/L	1	03/08/2024 0:00	R344494



# Laboratory Results

<http://www.teklabinc.com/>

Client: City Water, Light & Power  
 Client Project: Ash Pond Monitoring Wells  
 Lab ID: 24010117-006  
 Matrix: GROUNDWATER

Work Order: 24010117  
 Report Date: 18-Mar-24

Client Sample ID: AP-5  
 Collection Date: 02/22/2024 13:44

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>								
Bottom of well elevation	*	0		552.63	ft	1	02/22/2024 13:44	R343702
Depth to water	*	-5.00		13.65	ft	1	02/22/2024 13:44	R343702
Depth to water from measuring point	*	0		15.95	ft	1	02/22/2024 13:44	R343702
Elevation of groundwater surface	*	0		567.95	ft	1	02/22/2024 13:44	R343702
Measuring Point Elevation	*	0		583.90	ft	1	02/22/2024 13:44	R343702
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	02/22/2024 13:44	R343702
<b>STANDARD METHODS 2130 B FIELD</b>								
Turbidity	*	1.0		< 1.0	NTU	1	02/22/2024 13:44	R343702
<b>STANDARD METHODS 2550 B FIELD</b>								
Temperature	*	0		57.2	°F	1	02/22/2024 13:44	R343702
<b>SW-846 9040B</b>								
pH, Field	*	1.00		7.01		1	02/22/2024 13:44	R343702
<b>SW-846 9050A</b>								
Spec. Conductance, Field	*	1.00		591	µmhos/cm @25C	1	02/22/2024 13:44	R343702
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>								
Total Dissolved Solids	NELAP	20		434	mg/L	1	02/23/2024 12:34	R343558
<b>SW-846 9036 (TOTAL)</b>								
Sulfate	NELAP	20		50	mg/L	2	02/23/2024 13:11	R343641
<b>SW-846 9214 (TOTAL)</b>								
Fluoride	NELAP	0.10		0.28	mg/L	1	02/23/2024 13:30	R343485
<b>SW-846 9251 (TOTAL)</b>								
Chloride	NELAP	4		8	mg/L	1	02/23/2024 13:06	R343643
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Barium	NELAP	0.0025		0.0515	mg/L	1	02/26/2024 19:04	219117
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/26/2024 19:04	219117
Boron	NELAP	0.0200		0.0434	mg/L	1	02/26/2024 19:04	219117
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/26/2024 19:04	219117
Calcium	NELAP	0.100		96.7	mg/L	1	02/26/2024 19:04	219117
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/26/2024 19:04	219117
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/26/2024 19:04	219117
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/26/2024 19:04	219117
Lithium	NELAP	0.0050		< 0.0050	mg/L	1	02/26/2024 19:04	219117
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/26/2024 19:04	219117
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	02/28/2024 3:24	219117
Arsenic	NELAP	0.0010		< 0.0010	mg/L	5	02/28/2024 3:24	219117
Selenium	NELAP	0.0010		0.0011	mg/L	5	02/28/2024 3:24	219117
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/28/2024 3:24	219117
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/23/2024 15:38	219103
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-226	*	0		See Attached	pci/L	1	03/08/2024 0:00	R344494
Radium-228	*	0		See Attached	pci/L	1	03/08/2024 0:00	R344494



# Receiving Check List

<http://www.teklabinc.com/>

Client: City Water, Light & Power

Work Order: 24010117

Client Project: Ash Pond Monitoring Wells

Report Date: 18-Mar-24

Carrier: Tracy Carroll

Received By: AMD

Completed by:

*Amber Dilallo*

Reviewed by:

*Ellie Hopkins*

On:

22-Feb-24

Amber Dilallo

On:

27-Feb-24

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **3.3**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

pH strip #90719. - amberdilallo - 2/22/2024 8:40:42 AM

Samples were received on 2/22/24 at 15:40 on ice [7.3C - LTG5]. pH strip #90719. Collection date per Tracy Carroll. - amberdilallo - 2/22/2024 4:41:18 PM

Samples were received on 2/23/24 at 13:07 on ice [6.7C - LTG#7]. pH strip #90719. Additional Nitric Acid (96331) preservative was needed for AP-4 & AP-14 upon arrival at the laboratory. - nickreed - 2/23/2024 2:35:40 PM

Samples were received on 2/26/24 at 18:45 on ice [5.3c - LTG5]. pH strip #90719. - amberdilallo - 2/27/2024 8:11:24 AM







# CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>City Water, Light &amp; Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax: _____	Samples on: <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: _____
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Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file	Client Comments: *elevations, pH, conductivity, temperature **Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring
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PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>	SAMPLE COLLECTOR'S NAME <u>T. Carell</u>	# and Type of Containers UNP HNO3 NaOH H2SO4 HCL MeOH NaHSO4 TSP Other	INDICATE ANALYSIS REQUESTED Field parameters* Cl F SO4 TDS (T) Metals (T)** Radium-226 Radium-228 Field Turbidity
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Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
2401017: <u>012</u>	AP-11		Groundwater	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>013</u>	AP-12		Groundwater	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>014</u>	AP-13		Groundwater	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>015</u>	AP-14	<u>2/23/24 1025</u>	Groundwater	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															
			Groundwater															

Relinquished By <u>Juanj Carell</u>	Date/Time <u>2/23/24 1:07</u>	Received By <u>Whitney Owen</u>	Date/Time <u>2/23/24 1:05</u>
--	----------------------------------	------------------------------------	----------------------------------

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### CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>City Water, Light &amp; Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax: _____	Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>5.3</u> °C Preserved in: <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <b>FOR LAB USE ONLY</b> <u>LT4</u> LAB NOTES: <u>GOTA</u> <u>SMJ 2/27/24</u> <u>5</u>
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Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file	Client Comments: *elevations, pH, conductivity, temperature **Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring
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PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>	SAMPLE COLLECTOR'S NAME <u>T Carroll</u>	# and Type of Containers	INDICATE ANALYSIS REQUESTED
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)	BILLING INSTRUCTIONS	UNP HNO3 NaOH H2SO4 HCL MeOH NaHSO4 TSP Other	Field Turbidity Radium-228 Radium-226 Metals (T)** Cl F SO4 TDS (T) Field parameters*

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity	
<u>24010117-001</u>	<u>RW-3</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>002</u>	<u>AP-1</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>003</u>	<u>AP-2</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>004</u>	<u>AP-3</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>005</u>	<u>AP-4</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>006</u>	<u>AP-5</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>007</u>	<u>AP-6</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>008</u>	<u>AP-7</u>	<u>2/26/24 1420</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>009</u>	<u>AP-8</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>010</u>	<u>AP-9</u>	<u>2/26/24 1350</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>011</u>	<u>AP-10</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Relinquished By <u>Tony Carroll</u>	Date/Time <u>2/26/24 1845</u>	Received By <u>Uma O'Connell</u>	Date/Time <u>2/26/24 1845</u>
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# CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>City Water, Light &amp; Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax: _____				Samples on: <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: <u>AP-11, AP-12 &amp; AP-13 times per Tracy Carroll</u> <u>Sm 2/27/24</u>															
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file				Client Comments: *elevations, pH, conductivity, temperature **Sb As Se Tl (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring															
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>		SAMPLE COLLECTOR'S NAME <u>J. Carroll</u>		# and Type of Containers		INDICATE ANALYSIS REQUESTED													
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS		UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity	
Lab Use Only	Sample ID	Date/Time Sampled	Matrix	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	<u>24010117</u> <u>AP-11</u>	<u>2/26/24 1108</u>	Groundwater	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	<u>AP-12</u>	<u>↓ 1200</u>	Groundwater	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	<u>AP-13</u>	<u>↓ 1234</u>	Groundwater	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	<u>AP-14</u>		Groundwater	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
			Groundwater																
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			Groundwater																
Relinquished By <u>Jeremy Carroll</u>		Date/Time <u>2/26/24 1845</u>		Received By <u>Sm...</u>		Date/Time <u>2/26/24 1845</u>													

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Site Sampling Event: CWLP Ash Pond- 1Q24

Groundwater Sampling Form- Groundwater Quality Parameters

LIMS Workorder: 24010117

CWLP- Ash Pond- 1Q 2024

Technician(s): DC, JC, TC, BG

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-4	2/23/2024	11:12	9.04	15.5	59.9	6.86	848.3	0.58	24.99	-12.80
AP-4	2/23/2024	11:15	9.04	15.5	59.9	6.86	849.4	0.54	34.01	-29.30
AP-4	2/23/2024	11:18	9.04	15.5	59.9	6.86	848.1	0.52	28.31	-42.70
AP-4	2/23/2024	11:21	9.04	15.5	59.9	6.86	847.4	0.50	38.35	-53.30

Site Sampling Event: CWLP Ash Pond- 1Q24

Groundwater Sampling Form- Groundwater Quality Parameters

LIMS Workorder: 24010117

CWLP- Ash Pond- 1Q 2024

Technician(s): DC, JC, TC, BG

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µS/cm)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-5	2/22/2024	13:35	15.95	14.1	57.4	7.07	590.0	2.93	2.05	62.70
AP-5	2/22/2024	13:38	15.95	13.9	57.0	7.04	589.9	2.61	1.74	63.20
AP-5	2/22/2024	13:41	15.95	13.8	56.8	7.03	589.2	2.38	1.04	63.60
AP-5	2/22/2024	13:44	15.95	14.0	57.2	7.01	590.8	2.26	0.66	63.70

May 02, 2024

Eric Staley  
City Water, Light & Power  
3100 Stevenson Drive  
2nd Floor Maintenance Building  
Springfield, IL 62712  
TEL: (217) 757-8610  
FAX: (217) 757-8615



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Ash Pond Monitoring Wells

**WorkOrder:** 24042136

Dear Eric Staley:

TEKLAB, INC received 2 samples on 4/25/2024 1:40:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
[SHennessy@teklabinc.com](mailto:SHennessy@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

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**Client:** City Water, Light & Power

**Work Order:** 24042136

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 02-May-24

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**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	9
Chain of Custody	Appended

**Client:** City Water, Light & Power

**Work Order:** 24042136

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 02-May-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** City Water, Light & Power

**Work Order:** 24042136

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 02-May-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



## Case Narrative

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells

**Work Order:** 24042136  
**Report Date:** 02-May-24

**Cooler Receipt Temp:** 16.4 °C

An employee of Teklab, Inc. collected the sample(s).

### Locations

#### Collinsville

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

#### Collinsville Air

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

#### Springfield

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

#### Chicago

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

#### Kansas City

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power

**Work Order:** 24042136

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 02-May-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells  
**Lab ID:** 24042136-001  
**Matrix:** GROUNDWATER

**Work Order:** 24042136  
**Report Date:** 02-May-24  
**Client Sample ID:** AP-4  
**Collection Date:** 04/25/2024 10:49

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Arsenic	NELAP	0.0010		<b>0.0198</b>	mg/L	5	05/02/2024 4:34	222154



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells  
**Lab ID:** 24042136-002  
**Matrix:** GROUNDWATER

**Work Order:** 24042136  
**Report Date:** 02-May-24  
**Client Sample ID:** AP-5  
**Collection Date:** 04/25/2024 11:33

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Arsenic	NELAP	0.0010		< 0.0010	mg/L	5	05/02/2024 4:39	222154



# Receiving Check List

<http://www.teklabinc.com/>

Client: City Water, Light & Power

Work Order: 24042136

Client Project: Ash Pond Monitoring Wells

Report Date: 02-May-24

Carrier: Tracy Carroll

Received By: NR

Completed by:

Reviewed by:

On:

26-Apr-24

Paul Schultz

On:

26-Apr-24

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **16.4**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

pH strip #90719. WO - pschultz - 4/26/2024 8:42:33 AM



July 15, 2024

Eric Staley  
City Water, Light & Power  
3100 Stevenson Drive  
2nd Floor Maintenance Building  
Springfield, IL 62712  
TEL: (217) 757-8610  
FAX: (217) 757-8615



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Ash Pond Monitoring Wells

**WorkOrder:** 24050003

Dear Eric Staley:

TEKLAB, INC received 20 samples on 5/14/2024 2:39:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
[SHennessy@teklabinc.com](mailto:SHennessy@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

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**Client:** City Water, Light & Power

**Work Order:** 24050003

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 15-Jul-24

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**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
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Accreditations	6
Laboratory Results	7
Receiving Check List	27
Chain of Custody	Appended

**Client:** City Water, Light & Power

**Work Order:** 24050003

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 15-Jul-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

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TNTC Too numerous to count ( > 200 CFU )

**Client:** City Water, Light & Power

**Work Order:** 24050003

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 15-Jul-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



# Case Narrative

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells

**Work Order:** 24050003  
**Report Date:** 15-Jul-24

**Cooler Receipt Temp:** 12.1 °C

This report was revised on July 15, 2024 per Eric Staley's request to report the reanalysis of Cobalt for AP-11. Please replace report dated June 18, 2024 with this report. SAH 7/15/24

An employee of Teklab, Inc. collected the sample(s).

Radium-226 & -228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

## Locations

### Collinsville

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

### Collinsville Air

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

### Springfield

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

### Chicago

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

### Kansas City

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com

**Client:** City Water, Light & Power

**Work Order:** 24050003

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 15-Jul-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: City Water, Light & Power  
 Client Project: Ash Pond Monitoring Wells  
 Lab ID: 24050003-005  
 Matrix: GROUNDWATER

Work Order: 24050003  
 Report Date: 15-Jul-24

Client Sample ID: AP-4

Collection Date: 05/13/2024 13:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>								
Bottom of well elevation	*	0		492.46	ft	1	05/13/2024 13:25	R347528
Depth to water	*	-5.00		5.54	ft	1	05/13/2024 13:25	R347528
Depth to water from measuring point	*	0		8.68	ft	1	05/13/2024 13:25	R347528
Elevation of groundwater surface	*	0		546.92	ft	1	05/13/2024 13:25	R347528
Measuring Point Elevation	*	0		555.60	ft	1	05/13/2024 13:25	R347528
Measuring Point Height Above Land Surface	*	0		3.14	ft	1	05/13/2024 13:25	R347528
<b>STANDARD METHODS 2130 B FIELD</b>								
Turbidity	*	1.0		24	NTU	1	05/13/2024 13:25	R347528
<b>STANDARD METHODS 2550 B FIELD</b>								
Temperature	*	0		63.0	°F	1	05/13/2024 13:25	R347528
<b>SW-846 9040B</b>								
pH, Field	*	1.00		6.83		1	05/13/2024 13:25	R347528
<b>SW-846 9050A</b>								
Spec. Conductance, Field	*	1.00		588	µmhos/cm @25C	1	05/13/2024 13:25	R347528
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>								
Total Dissolved Solids	NELAP	50		500	mg/L	2.5	05/17/2024 10:40	R347497
<b>SW-846 9036 (TOTAL)</b>								
Sulfate	NELAP	10	S	< 10	mg/L	1	05/21/2024 1:02	R347580
<i>Matrix spike did not recover within control limits due to matrix interference.</i>								
<b>SW-846 9214 (TOTAL)</b>								
Fluoride	NELAP	0.10		0.13	mg/L	1	05/20/2024 13:50	R347555
<b>SW-846 9251 (TOTAL)</b>								
Chloride	NELAP	4		13	mg/L	1	05/21/2024 1:02	R347642
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Barium	NELAP	0.0025		0.407	mg/L	1	05/23/2024 13:19	223235
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	05/23/2024 13:19	223235
Boron	NELAP	0.0200		0.0834	mg/L	1	05/29/2024 13:27	223235
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	05/23/2024 13:19	223235
Calcium	NELAP	0.100		123	mg/L	1	05/23/2024 13:19	223235
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	05/23/2024 13:19	223235
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	05/23/2024 13:19	223235
Lead	NELAP	0.0150		< 0.0150	mg/L	1	05/23/2024 13:19	223235
Lithium	NELAP	0.0500		< 0.0500	mg/L	1	05/30/2024 10:45	223235
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	05/23/2024 13:19	223235
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	05/23/2024 22:45	223235
Arsenic	NELAP	0.0010		0.0229	mg/L	5	05/23/2024 22:45	223235
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	05/23/2024 22:45	223235
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	05/23/2024 22:45	223235
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	05/22/2024 16:26	223231
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-226	*	0		See Attached	pci/L	1	06/03/2024 0:00	R348779
Radium-228	*	0		See Attached	pci/L	1	06/03/2024 0:00	R348779



# Laboratory Results

<http://www.teklabinc.com/>

Client: City Water, Light & Power  
 Client Project: Ash Pond Monitoring Wells  
 Lab ID: 24050003-006  
 Matrix: GROUNDWATER

Work Order: 24050003  
 Report Date: 15-Jul-24

Client Sample ID: AP-5  
 Collection Date: 05/14/2024 9:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>								
Bottom of well elevation	*	0		552.63	ft	1	05/14/2024 9:54	R347528
Depth to water	*	-5.00		11.30	ft	1	05/14/2024 9:54	R347528
Depth to water from measuring point	*	0		13.60	ft	1	05/14/2024 9:54	R347528
Elevation of groundwater surface	*	0		570.30	ft	1	05/14/2024 9:54	R347528
Measuring Point Elevation	*	0		583.90	ft	1	05/14/2024 9:54	R347528
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	05/14/2024 9:54	R347528
<b>STANDARD METHODS 2130 B FIELD</b>								
Turbidity	*	1.0		5.2	NTU	1	05/14/2024 9:54	R347528
<b>STANDARD METHODS 2550 B FIELD</b>								
Temperature	*	0		56.5	°F	1	05/14/2024 9:54	R347528
<b>SW-846 9040B</b>								
pH, Field	*	1.00		6.99		1	05/14/2024 9:54	R347528
<b>SW-846 9050A</b>								
Spec. Conductance, Field	*	1.00		468	µmhos/cm @25C	1	05/14/2024 9:54	R347528
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>								
Total Dissolved Solids	NELAP	50		405	mg/L	2.5	05/17/2024 10:41	R347497
<b>SW-846 9036 (TOTAL)</b>								
Sulfate	NELAP	10		43	mg/L	1	05/21/2024 1:39	R347580
<b>SW-846 9214 (TOTAL)</b>								
Fluoride	NELAP	0.10		0.29	mg/L	1	05/20/2024 13:52	R347555
<b>SW-846 9251 (TOTAL)</b>								
Chloride	NELAP	4		8	mg/L	1	05/21/2024 1:39	R347642
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Barium	NELAP	0.0025		0.0510	mg/L	1	05/23/2024 13:35	223235
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	05/23/2024 13:35	223235
Boron	NELAP	0.0200		0.0269	mg/L	1	05/29/2024 13:28	223235
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	05/23/2024 13:35	223235
Calcium	NELAP	0.100		94.1	mg/L	1	05/23/2024 13:35	223235
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	05/23/2024 13:35	223235
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	05/23/2024 13:35	223235
Lead	NELAP	0.0150		< 0.0150	mg/L	1	05/23/2024 13:35	223235
Lithium	NELAP	0.0500		< 0.0500	mg/L	1	05/30/2024 10:47	223235
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	05/23/2024 13:35	223235
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	05/23/2024 22:51	223235
Arsenic	NELAP	0.0010		< 0.0010	mg/L	5	05/23/2024 22:51	223235
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	05/23/2024 22:51	223235
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	05/23/2024 22:51	223235
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	05/22/2024 19:07	223259
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-226	*	0		See Attached	pci/L	1	06/03/2024 0:00	R348779
Radium-228	*	0		See Attached	pci/L	1	06/03/2024 0:00	R348779



# Receiving Check List

<http://www.teklabinc.com/>

Client: City Water, Light & Power

Work Order: 24050003

Client Project: Ash Pond Monitoring Wells

Report Date: 15-Jul-24

Carrier: Daniel Crump

Received By: NR

Completed by:

Reviewed by:

On:

10-May-24

Paul Schultz

On:

14-May-24

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- |   |   |   |                                      |                                  |
|---|---|---|--------------------------------------|----------------------------------|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             | Not Present <input type="checkbox"/> | Temp °C <b>12.1</b>              |
| Type of thermal preservation?                           | None <input type="checkbox"/>             | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/>    | Dry Ice <input type="checkbox"/> |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Reported field parameters measured:                     | Field <input checked="" type="checkbox"/> | Lab <input type="checkbox"/>            | NA <input type="checkbox"/>          |                                  |
| Container/Temp Blank temperature in compliance?         | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- |   |                              |  |   |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace?  | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | No VOA vials <input checked="" type="checkbox"/>      |
| Water - TOX containers have zero headspace?               | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt?                       | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/>                           |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/>                |

**Any No responses must be detailed below or on the COC.**

pH strip #96651. - pschultz - 5/10/2024 9:15:35 AM

Additional Nitric Acid (97737) was needed for sample T-2 upon arrival at the laboratory. - pschultz - 5/10/2024 9:15:38 AM

Samples were received on 5/10/2024 at 13:30 on ice [8.3C - LTG#7]. pH strip #96651. WO - pschultz - 5/10/2024 2:41:25 PM

Samples were received on 5/13/2024 at 16:10 on ice [19.3C - LTG#7]. pH strip #96651. NR - pschultz - 5/13/2024 4:45:02 PM

Additional Nitric Acid (97737) was needed for AR-10 upon arrival at the laboratory. NR - pschultz - 5/13/2024 4:45:05 PM

Samples were received on 5/14/2024 at 14:39 on ice [8.1C - LTG#7]. pH strip #96651. NR - pschultz - 5/14/2024 3:02:50 PM



# CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>City Water, Light &amp; Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax:	Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>12.1 °C</u> Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: Client Comments:
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Are these samples known to be involved in litigation? If yes, a surcharge will apply:  Yes  No  
 Are these samples known to be hazardous?  Yes  No  
 Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section:  Yes  No Permit on file

\*elevations, pH, conductivity, temperature  
 \*\*Sb As Se TI (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo  
 Quarterly monitoring

PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>	SAMPLE COLLECTOR'S NAME <u>T Carroll</u>	# and Type of Containers	INDICATE ANALYSIS REQUESTED
---	---	--------------------------	-----------------------------

RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)	BILLING INSTRUCTIONS
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Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
<u>24050003-012</u>	AP-11	<u>14:28</u> <u>5/9/24</u>	Groundwater	1	2								✓	✓	✓	✓	✓	✓
<u>013</u>	AP-12	<u>13:14</u> <u>5/9/24</u>	Groundwater	1	2								✓	✓	✓	✓	✓	✓
<u>014</u>	AP-13	<u>1350</u> <u>5/9/24</u>	Groundwater	1	2								✓	✓	✓	✓	✓	✓
<u>015</u>	AP-14	<u>TE SA 5/22/24</u>	Groundwater	1	2								✓	✓	✓	✓	✓	✓
<u>016</u>	T-1	<u>11:10</u> <u>5/9/24</u>	Groundwater	1	2								✓	✓	✓	✓	✓	✓
<u>017</u>	T-2	<u>1145</u> <u>5/9/24</u>	Groundwater	1	2								✓	✓	✓	✓	✓	✓
<u>018</u>	T-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓
<u>019</u>	T-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓
<u>020</u>	T-6		Groundwater	1	2								✓	✓	✓	✓	✓	✓
			Groundwater															
			Groundwater															

Relinquished By <u>Daniel Crump</u>	Date/Time <u>5-9/1635</u>	Received By <u>Diana Reed</u>	Date/Time <u>5/9/24 1635</u>
--	------------------------------	----------------------------------	---------------------------------

\*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

# CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

1-76-7

Client: <u>City Water, Light &amp; Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax: _____				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>83</u> °C Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: <u>pH 9.6 5.2 5.10</u> Client Comments: <u>*elevations, pH, conductivity, temperature</u> <u>**Sb As Se TI (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo</u> <u>Quarterly monitoring</u>																																																																																																																																																																																																																																									
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file				# and Type of Containers   INDICATE ANALYSIS REQUESTED UNP   HNO3   NaOH   H2SO4   HCL   MeOH   NaHSO4   TSP   Other   Field parameters*   Cl F SO4 TDS (T)   Metals (T)**   Radium-226   Radium-228   Field Turbidity																																																																																																																																																																																																																																									
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>		SAMPLE COLLECTOR'S NAME <u>John Gp</u>		RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Lab Use Only</th> <th>Sample ID</th> <th>Date/Time Sampled</th> <th>Matrix</th> <th>UNP</th> <th>HNO3</th> <th>NaOH</th> <th>H2SO4</th> <th>HCL</th> <th>MeOH</th> <th>NaHSO4</th> <th>TSP</th> <th>Other</th> <th>Field parameters*</th> <th>Cl F SO4 TDS (T)</th> <th>Metals (T)**</th> <th>Radium-226</th> <th>Radium-228</th> <th>Field Turbidity</th> </tr> </thead> <tbody> <tr> <td>24050003-001</td> <td>RW-3</td> <td></td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>002</td> <td>AP-1</td> <td></td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>003</td> <td>AP-2</td> <td></td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>004</td> <td>AP-3</td> <td></td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>005</td> <td>AP-4</td> <td></td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>006</td> <td>AP-5</td> <td></td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>007</td> <td>AP-6</td> <td>5-10-24 / 1013</td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>008</td> <td>AP-7</td> <td></td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>009</td> <td>AP-8</td> <td>5-10-24 / 1035</td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>010</td> <td>AP-9</td> <td></td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>011</td> <td>AP-10</td> <td></td> <td>Groundwater</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </tbody> </table>		Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity	24050003-001	RW-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓	002	AP-1		Groundwater	1	2								✓	✓	✓	✓	✓	✓	003	AP-2		Groundwater	1	2								✓	✓	✓	✓	✓	✓	004	AP-3		Groundwater	1	2								✓	✓	✓	✓	✓	✓	005	AP-4		Groundwater	1	2								✓	✓	✓	✓	✓	✓	006	AP-5		Groundwater	1	2								✓	✓	✓	✓	✓	✓	007	AP-6	5-10-24 / 1013	Groundwater	1	2								✓	✓	✓	✓	✓	✓	008	AP-7		Groundwater	1	2								✓	✓	✓	✓	✓	✓	009	AP-8	5-10-24 / 1035	Groundwater	1	2								✓	✓	✓	✓	✓	✓	010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓	011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓
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009	AP-8	5-10-24 / 1035	Groundwater	1	2								✓	✓	✓	✓	✓	✓																																																																																																																																																																																																																											
010	AP-9		Groundwater	1	2								✓	✓	✓	✓	✓	✓																																																																																																																																																																																																																											
011	AP-10		Groundwater	1	2								✓	✓	✓	✓	✓	✓																																																																																																																																																																																																																											
Relinquished By <u>J. Gp</u>		Date/Time <u>5-10-24 / 1350</u>		Received By <u>Paul [Signature]</u>		Date/Time <u>5/10/24 13:30</u>																																																																																																																																																																																																																																							

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# CHAIN OF CUSTODY

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Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file				Client Comments: *elevations, pH, conductivity, temperature **Sb As Se TI (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring										
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>		SAMPLE COLLECTOR'S NAME <u>Justin Colp</u>		# and Type of Containers UNP HNO3 NaOH H2SO4 HCL MeOH NaHSO4 TSP Other		INDICATE ANALYSIS REQUESTED Field Turbidity Radium-228 Radium-226 Metals (T)** Cl F SO4 TDS (T) Field parameters*								
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS												
Lab Use Only	Sample ID	Date/Time Sampled	Matrix											
<u>24050003-001</u>	<u>RW-3</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>002</u>	<u>AP-1</u>	<u>5-13-24 / 1101</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>003</u>	<u>AP-2</u>	<u>5-13-24 / 1153</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>004</u>	<u>AP-3</u>	<u>5-13-24 / 1243</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>005</u>	<u>AP-4</u>	<u>5-13-24 / 1325</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>006</u>	<u>AP-5</u>	<u>5-13-24</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>007</u>	<u>AP-6</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>008</u>	<u>AP-7</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>009</u>	<u>AP-8</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>010</u>	<u>AP-9</u>		<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>011</u>	<u>AP-10</u>	<u>5-13-24 / 1408</u>	<u>Groundwater</u>	<u>1</u>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
Relinquished By <u>Daniel Camp</u>		Date/Time <u>5-13-24 / 1610</u>		Received By <u>Whitney Jones</u>		Date/Time <u>5/13/24 1610</u>								

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TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>City Water, Light &amp; Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax: _____				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>8/10 °C</u> Preserved in: <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> <u>LTG#7</u> LAB NOTES: <u>9/6/14</u>														
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file				Client Comments: *elevations, pH, conductivity, temperature **Sb As Se TI (ICPMS) Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring														
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>		SAMPLE COLLECTOR'S NAME <u>Justin Gp</u>		# and Type of Containers		INDICATE ANALYSIS REQUESTED												
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS		UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (F)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (F)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
	<u>24050003-001</u>		<u>RW-3</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>002</u>		<u>AP-1</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>003</u>		<u>AP-2</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>004</u>		<u>AP-3</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>005</u>		<u>AP-4</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>006</u>		<u>AP-5</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>007</u>		<u>AP-6</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>008</u>		<u>AP-7</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>009</u>		<u>AP-8</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>010</u>		<u>AP-9</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>011</u>		<u>AP-10</u>	1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Relinquished By		Date/Time		Received By				Date/Time										
<u>Daniel Crump</u>		<u>5-14-24 / 1439</u>		<u>[Signature]</u>				<u>5/14/24 1439</u>										

\*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions



Site Sampling Event: CWLP- 2Q24

LIMS Workorder: 24050003

Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- GW Quality Parameters

CWLP- Ash Ponds- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-4	5/13/2024	13:16	8.68	17.4	63.3	6.81	587.7	0.73	18.58	-112.0
AP-4	5/13/2024	13:19	8.68	17.3	63.1	6.82	588.2	0.52	19.29	-118.2
AP-4	5/13/2024	13:22	8.68	17.3	63.1	6.83	588.6	0.44	20.77	-121.0
AP-4	5/13/2024	13:25	8.68	17.2	63.0	6.83	588.1	0.40	23.97	-122.8

Site Sampling Event: CWLP- 2Q24

LIMS Workorder: 24050003

Technician(s): DC, JC, TC, BG, PY

Groundwater Sampling Field Forms- GW Quality Parameters

CWLP- Ash Ponds- 2Q 2024

Well ID	Date	Time	DTW	Temp (°C)	Temp (°F)	pH (SU)	Sp Cond (µmhos/cm @25C)	ODO (mg/L)	Turbidity (NTU)	ORP (mV)
AP-5	5/14/2024	9:45	13.60	13.1	55.7	6.97	467.0	1.57	7.43	-60.2
AP-5	5/14/2024	9:48	13.60	13.8	56.8	6.97	466.2	1.00	6.39	-71.9
AP-5	5/14/2024	9:51	13.60	13.7	56.6	6.98	466.6	0.80	5.66	-70.7
AP-5	5/14/2024	9:54	13.60	13.6	56.5	6.99	468.0	0.71	5.17	-67.9



June 17, 2024

Eric Staley  
City Water, Light & Power  
3100 Stevenson Drive  
2nd Floor Maintenance Building  
Springfield, IL 62712  
TEL: (217) 757-8610  
FAX: (217) 757-8615



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Ash Pond Monitoring Wells

**WorkOrder:** 24060964

Dear Eric Staley:

TEKLAB, INC received 2 samples on 6/12/2024 11:47:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
[SHennessy@teklabinc.com](mailto:SHennessy@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

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**Client:** City Water, Light & Power

**Work Order:** 24060964

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 17-Jun-24

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**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	9
Chain of Custody	Appended

**Client:** City Water, Light & Power

**Work Order:** 24060964

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 17-Jun-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** City Water, Light & Power

**Work Order:** 24060964

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 17-Jun-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells

**Work Order:** 24060964  
**Report Date:** 17-Jun-24

**Cooler Receipt Temp:** 16.5 °C

An employee of Teklab, Inc. collected the sample(s).

**Locations**

**Collinsville**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

**Collinsville Air**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

**Springfield**

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

**Chicago**

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

**Kansas City**

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com

**Client:** City Water, Light & Power

**Work Order:** 24060964

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 17-Jun-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells  
**Lab ID:** 24060964-001  
**Matrix:** GROUNDWATER

**Work Order:** 24060964  
**Report Date:** 17-Jun-24  
**Client Sample ID:** AP-4  
**Collection Date:** 06/12/2024 9:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Arsenic	NELAP	0.0010		<b>0.0218</b>	mg/L	5	06/13/2024 14:55	224317



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells  
**Lab ID:** 24060964-002  
**Matrix:** GROUNDWATER

**Work Order:** 24060964  
**Report Date:** 17-Jun-24  
**Client Sample ID:** AP-5  
**Collection Date:** 06/12/2024 10:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Arsenic	NELAP	0.0010		< 0.0010	mg/L	5	06/13/2024 15:00	224317



# Receiving Check List

<http://www.teklabinc.com/>

Client: City Water, Light & Power

Work Order: 24060964

Client Project: Ash Pond Monitoring Wells

Report Date: 17-Jun-24

Carrier: Payton Yoch

Received By: NR

Completed by:

*Whitney Olinger*

Reviewed by:

*Ellie Hopkins*

On:

12-Jun-24

Whitney Olinger

On:

12-Jun-24

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **16.5**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

3 day rush TAT per Eric Staley via email. - SAH/ERH 6/12/24

# CHAIN OF CUSTODY

pg. 1 of 1 Work order # 24060964

**TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005**

<b>Client:</b>	City Water, Light & Power		
<b>Address:</b>	3100 Stevenson Drive		
<b>City / State / Zip</b>	Springfield, IL 62712		
<b>Contact:</b>	Eric Staley	<b>Phone:</b>	(217) 757-8610
<b>E-Mail:</b>	eric.staley@cwlp.com	<b>Fax:</b>	

**Samples on:**  ICE  BLUE ICE  NO ICE 16.5 °C LTG# 7

**Preserved in:**  LAB  FIELD **FOR LAB USE ONLY**

**Lab Notes:**  
*Added HNO<sub>3</sub> (97777) to AP-4 6/12 96651*

**Client Comments:** *TAT per Eric Staley via email. As=0.001 mg/L (ICPMS) SAH/ERH 6/12/24*

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous? If yes, include details of the hazard.  Yes  No  
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section.  Yes  No

Project Name/Number		Sample Collector's Name			MATRIX		INDICATE ANALYSIS REQUESTED															
Ash Pond Monitoring Wells		<i>Justin Cole</i>			Groundwater	As (T)	3 DAY															
Results Requested		Billing Instructions		# and Type of Containers																		
<input type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input checked="" type="checkbox"/> 3 Day (50% Surcharge)				HNO3 																		
Lab Use Only	Sample Identification	Date/Time Sampled																				
<i>24060964001</i>	AP-4	6-12-24 / 0956		1																		
<i>-002</i>	AP-5	6-12-24 / 1021		1																		

Relinquished By	Date/Time	Received By	Date/Time
<i>[Signature]</i>	6-12-24 / 1147	<i>Nick Reed</i>	6/12/24 1147

August 01, 2024

Eric Staley  
City Water, Light & Power  
3100 Stevenson Drive  
2nd Floor Maintenance Building  
Springfield, IL 62712  
TEL: (217) 757-8610  
FAX: (217) 757-8615



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Ash Pond Monitoring Wells

**WorkOrder:** 24072240

Dear Eric Staley:

TEKLAB, INC received 2 samples on 7/26/2024 12:52:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
[SHennessy@teklabinc.com](mailto:SHennessy@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells

**Work Order:** 24072240  
**Report Date:** 01-Aug-24

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	9
Chain of Custody	Appended

**Client:** City Water, Light & Power

**Work Order:** 24072240

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 01-Aug-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** City Water, Light & Power

**Work Order:** 24072240

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 01-Aug-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells

**Work Order:** 24072240  
**Report Date:** 01-Aug-24

**Cooler Receipt Temp:** 9.7 °C

An employee of Teklab, Inc. collected the sample(s).

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**Locations**

---

**Collinsville**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

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**Collinsville Air**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

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**Springfield**

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

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**Chicago**

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

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**Kansas City**

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power

**Work Order:** 24072240

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 01-Aug-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells  
**Lab ID:** 24072240-001  
**Matrix:** GROUNDWATER

**Work Order:** 24072240  
**Report Date:** 01-Aug-24  
**Client Sample ID:** AP-4  
**Collection Date:** 07/26/2024 10:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Arsenic	NELAP	0.0010		<b>0.0213</b>	mg/L	5	07/31/2024 16:38	226348



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells  
**Lab ID:** 24072240-002  
**Matrix:** GROUNDWATER

**Work Order:** 24072240  
**Report Date:** 01-Aug-24  
**Client Sample ID:** AP-5  
**Collection Date:** 07/26/2024 11:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Arsenic	NELAP	0.0010		< 0.0010	mg/L	5	07/31/2024 16:43	226348



# Receiving Check List

<http://www.teklabinc.com/>

Client: City Water, Light & Power

Work Order: 24072240

Client Project: Ash Pond Monitoring Wells

Report Date: 01-Aug-24

Carrier: Tracy Carroll

Received By: AMD

Completed by:

*Amber Dilallo*

Reviewed by:

*Ellie Hopkins*

On:

26-Jul-24

Amber Dilallo

On:

26-Jul-24

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **9.7**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

pH strip #96651. - amberdilallo - 7/26/2024 1:09:08 PM

# CHAIN OF CUSTODY

pg. 1 of 1 Work order # 24072240

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

**Client:** City Water, Light & Power  
**Address:** 3100 Stevenson Drive  
**City / State / Zip:** Springfield, IL 62712  
**Contact:** Eric Staley **Phone:** (217) 757-8610  
**E-Mail:** eric.staley@cwlp.com **Fax:** \_\_\_\_\_

**Samples on:**  ICE  BLUE ICE  NO ICE 97 °C LTG# 5  
**Preserved in:**  LAB  FIELD **FOR LAB USE ONLY**  
**Lab Notes:** GLEET  
Om. Mchey

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous? If yes, include details of the hazard.  Yes  No  
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section.  Yes  No

**Client Comments**  
 As=0.001 mg/L (ICPMS)

**Project Name/Number:** Ash Pond Monitoring Wells  
**Sample Collector's Name:** T. Carroll

**Results Requested:**  Standard  1-2 Day (100% Surcharge)  Other \_\_\_\_\_  3 Day (50% Surcharge)  
**Billing Instructions:** \_\_\_\_\_  
**# and Type of Containers:**

Lab Use Only	Sample Identification	Date/Time Sampled	HNO3																
24072240 001	AP-4	7.26.24 1059	1																
002	AP-5	7.26.24 1129	1																

MATRIX	INDICATE ANALYSIS REQUESTED																	
	As (T)																	
Groundwater																		
X	X																	
X	X																	

Relinquished By	Date/Time	Received By	Date/Time
<u>Jeremy Carroll</u>	<u>7.26.24 1252</u>	<u>Umber Dulala</u>	<u>7/26/24 1252</u>

September 18, 2024

Eric Staley  
City Water, Light & Power  
3100 Stevenson Drive  
2nd Floor Maintenance Building  
Springfield, IL 62712  
TEL: (217) 757-8610  
FAX: (217) 757-8615



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Ash Pond Monitoring Wells

**WorkOrder:** 24080242

Dear Eric Staley:

TEKLAB, INC received 20 samples on 8/13/2024 2:27:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
[SHennessy@teklabinc.com](mailto:SHennessy@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

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**Client:** City Water, Light & Power

**Work Order:** 24080242

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 18-Sep-24

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**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	36
Chain of Custody	Appended

**Client:** City Water, Light & Power

**Work Order:** 24080242

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 18-Sep-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** City Water, Light & Power

**Work Order:** 24080242

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 18-Sep-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells

**Work Order:** 24080242  
**Report Date:** 18-Sep-24

**Cooler Receipt Temp:** 12.1 °C

An employee of Teklab, Inc. collected the sample(s).

AP-3 well is damaged, will be collected at a later date.

Radium-226 & -228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

**Locations**

**Collinsville**

**Address** 5445 Horseshoe Lake Road  
 Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

**Collinsville Air**

**Address** 5445 Horseshoe Lake Road  
 Collinsville, IL 62234-7425  
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**Address** 1319 Butterfield Rd.  
 Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

**Kansas City**

**Address** 8421 Nieman Road  
 Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power

**Work Order:** 24080242

**Client Project:** Ash Pond Monitoring Wells

**Report Date:** 18-Sep-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: City Water, Light & Power  
 Client Project: Ash Pond Monitoring Wells  
 Lab ID: 24080242-005  
 Matrix: GROUNDWATER

Work Order: 24080242  
 Report Date: 18-Sep-24

Client Sample ID: AP-4

Collection Date: 08/12/2024 12:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>								
Bottom of well elevation	*	0		495.19	ft	1	08/12/2024 12:35	R352005
Depth to water	*	-5.00		7.69	ft	1	08/12/2024 12:35	R352005
Depth to water from measuring point	*	0		10.83	ft	1	08/12/2024 12:35	R352005
Elevation of groundwater surface	*	0		544.77	ft	1	08/12/2024 12:35	R352005
Measuring Point Elevation	*	0		555.60	ft	1	08/12/2024 12:35	R352005
Measuring Point Height Above Land Surface	*	0		3.14	ft	1	08/12/2024 12:35	R352005
<b>STANDARD METHODS 2130 B FIELD</b>								
Turbidity	*	1.0		34	NTU	1	08/12/2024 12:35	R352005
<b>STANDARD METHODS 2550 B FIELD</b>								
Temperature	*	0		65.1	°F	1	08/12/2024 12:35	R352005
<b>SW-846 9040B</b>								
pH, Field	*	1.00		6.97		1	08/12/2024 12:35	R352005
<b>SW-846 9050A</b>								
Spec. Conductance, Field	*	1.00		935	umhos/cm @25C	1	08/12/2024 12:35	R352005
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>								
Total Dissolved Solids	NELAP	20		510	mg/L	1	08/16/2024 9:56	R351892
<b>SW-846 9036 (TOTAL)</b>								
Sulfate	NELAP	10		< 10	mg/L	1	08/20/2024 12:21	R352032
<b>SW-846 9214 (TOTAL)</b>								
Fluoride	NELAP	0.10		0.15	mg/L	1	08/19/2024 9:42	R351930
<b>SW-846 9251 (TOTAL)</b>								
Chloride	NELAP	4		15	mg/L	1	08/20/2024 12:21	R352062
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Barium	NELAP	0.0025		0.374	mg/L	1	08/14/2024 17:18	227065
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/14/2024 17:18	227065
Boron	NELAP	0.0200		0.0825	mg/L	1	08/14/2024 17:18	227065
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/14/2024 17:18	227065
Calcium	NELAP	0.100	S	118	mg/L	1	08/14/2024 17:18	227065
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/14/2024 17:18	227065
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/14/2024 17:18	227065
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/14/2024 17:18	227065
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/14/2024 17:18	227065
<i>Matrix spike control limits are not applicable due to high sample/spike ratio.</i>								
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/15/2024 10:21	227065
Arsenic	NELAP	0.0010		0.0207	mg/L	5	08/14/2024 23:22	227065
Lithium	*	0.0030		0.0072	mg/L	5	08/14/2024 23:22	227065
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/14/2024 23:22	227065
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/14/2024 23:22	227065
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/14/2024 12:38	227054
<i>LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.</i>								
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-226	*	0		See Attached	pci/L	1	09/16/2024 0:00	R353360



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** City Water, Light & Power  
**Client Project:** Ash Pond Monitoring Wells  
**Lab ID:** 24080242-005  
**Matrix:** GROUNDWATER

**Work Order:** 24080242  
**Report Date:** 18-Sep-24  
**Client Sample ID:** AP-4  
**Collection Date:** 08/12/2024 12:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-228	*	0		See Attached	pci/L	1	09/16/2024 0:00	R353360



# Laboratory Results

<http://www.teklabinc.com/>

Client: City Water, Light & Power  
 Client Project: Ash Pond Monitoring Wells  
 Lab ID: 24080242-006  
 Matrix: GROUNDWATER

Work Order: 24080242  
 Report Date: 18-Sep-24

Client Sample ID: AP-5  
 Collection Date: 08/12/2024 11:59

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>								
Bottom of well elevation	*	0		552.63	ft	1	08/12/2024 11:59	R352005
Depth to water	*	-5.00		15.04	ft	1	08/12/2024 11:59	R352005
Depth to water from measuring point	*	0		17.34	ft	1	08/12/2024 11:59	R352005
Elevation of groundwater surface	*	0		566.56	ft	1	08/12/2024 11:59	R352005
Measuring Point Elevation	*	0		583.90	ft	1	08/12/2024 11:59	R352005
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	08/12/2024 11:59	R352005
<b>STANDARD METHODS 2130 B FIELD</b>								
Turbidity	*	1.0		1.5	NTU	1	08/12/2024 11:59	R352005
<b>STANDARD METHODS 2550 B FIELD</b>								
Temperature	*	0		59.0	°F	1	08/12/2024 11:59	R352005
<b>SW-846 9040B</b>								
pH, Field	*	1.00		7.07		1	08/12/2024 11:59	R352005
<b>SW-846 9050A</b>								
Spec. Conductance, Field	*	1.00		767	umhos/cm @25C	1	08/12/2024 11:59	R352005
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>								
Total Dissolved Solids	NELAP	20		422	mg/L	1	08/16/2024 9:56	R351892
<b>SW-846 9036 (TOTAL)</b>								
Sulfate	NELAP	20		63	mg/L	2	08/20/2024 12:34	R352032
<b>SW-846 9214 (TOTAL)</b>								
Fluoride	NELAP	0.10		0.32	mg/L	1	08/19/2024 9:44	R351930
<b>SW-846 9251 (TOTAL)</b>								
Chloride	NELAP	4		8	mg/L	1	08/20/2024 12:29	R352062
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Barium	NELAP	0.0025		0.0521	mg/L	1	08/14/2024 17:23	227065
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/14/2024 17:23	227065
Boron	NELAP	0.0200		0.0339	mg/L	1	08/14/2024 17:23	227065
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/14/2024 17:23	227065
Calcium	NELAP	0.100		96.3	mg/L	1	08/14/2024 17:23	227065
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/14/2024 17:23	227065
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/14/2024 17:23	227065
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/14/2024 17:23	227065
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/14/2024 17:23	227065
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/15/2024 10:10	227065
Arsenic	NELAP	0.0010		< 0.0010	mg/L	5	08/14/2024 23:12	227065
Lithium	*	0.0030		0.0062	mg/L	5	08/14/2024 23:12	227065
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/14/2024 23:12	227065
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/14/2024 23:12	227065
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/14/2024 12:40	227054
<i>LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.</i>								
<b>EPA 903.0/904.0, RADIUM 226/228</b>								
Radium-226	*	0		See Attached	pci/L	1	09/16/2024 0:00	R353360
Radium-228	*	0		See Attached	pci/L	1	09/16/2024 0:00	R353360



# Receiving Check List

<http://www.teklabinc.com/>

Client: City Water, Light & Power

Work Order: 24080242

Client Project: Ash Pond Monitoring Wells

Report Date: 18-Sep-24

Carrier: Justin Colp

Received By: PRS

Completed by:

*Amber Dilallo*

Reviewed by:

*Shelly A Hennessy*

On:

13-Aug-24

Amber Dilallo

On:

27-Aug-24

Shelly A. Hennessy

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **12.1**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

Samples were received on 8/12/24 at 1635 on ice [12.1C - LTG#9]. pH strip #96651. - amberdilallo - 8/13/2024 8:19:55 AM

Samples were received on 8/13/24 at 1427 on ice [3.7C - LTG#5]. pH strip #96651. - amberdilallo - 8/13/2024 3:24:03 PM





# CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: City Water, Light & Power  
 Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building  
 City/State/Zip: Springfield IL 62712  
 Contact: Eric Staley Phone: (217) 757-8610  
 Email: eric.staley@cwlp.com Fax:

Samples on:  ICE  BLUE ICE  NO ICE 3.7 °C/35  
 Preserved in:  LAB  FIELD FOR LAB USE ONLY  
 LAB NOTES: pH/Al/Asi  
PS 8/13

Are these samples known to be involved in litigation? If yes, a surcharge will apply:  Yes  No  
 Are these samples known to be hazardous?  Yes  No  
 Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section:  Yes  No Permit on file

Client Comments:  
 \*elevations, pH, conductivity, temperature  
 \*\*Sb As Li Se TI (ICPMS) Ba Be B Cd Ca Cr Co Pb Hg Mo  
 Quarterly monitoring

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells  
 SAMPLE COLLECTOR'S NAME:

RESULTS REQUESTED:  Standard  1-2 Day (100% Surcharge)  
 Other  3 Day (50% Surcharge)  
 BILLING INSTRUCTIONS:

# and Type of Containers: \_\_\_\_\_ INDICATE ANALYSIS REQUESTED

Lab Use Only	Sample ID	Date/Time Sampled	Matrix
24080242-001	RW-3		Groundwater
002	AP-1		Groundwater
003	AP-2		Groundwater
004	AP-3		Groundwater
005	AP-4		Groundwater
006	AP-5		Groundwater
007	AP-6		Groundwater
008	AP-7		Groundwater
009	AP-8	8.13.24 1106	Groundwater
010	AP-9		Groundwater
011	AP-10	8-13-24 1043	Groundwater

UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 IDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1	2								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Relinquished By: [Signature] Date/Time: 8-13-24 1427

Received By: [Signature] Date/Time: 8/13/24 1427

\*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions



ATTACHMENT C  
PROFESSIONAL ENGINEER CERTIFICATION

## Professional Engineer Certification – Statistical Analysis Method for Calculation of Background Concentration for Total Arsenic

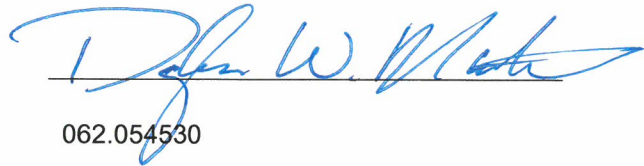
40 CFR § 257.93(f)(6)  
35 I.A.C. § 845.640(f)(2)

In accordance with 40 CFR Section 257.93(f)(6) and Title 35 Illinois Administrative Code (35 I.A.C.) Part 845, Subpart F, Section 845.640(f)(2), the owner or operator of a coal combustion residual (CCR) unit must obtain a certification from a qualified professional engineer that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area.

This certification is based on the description of the statistical methods selected to derive the background concentration for total arsenic utilizing eight consecutive sampling events from background wells AP-4 and AP-5. The statistical method is the same method previously certified in the Statistical Analysis Plan and is consistent with that utilized for the derivation of the existing background concentrations

*I, Douglas W. Mauntel, a qualified professional engineer in good standing in the State of Illinois, certify that the statistical methods described in this document, as supported by the Statistical Analysis Plan in the facility's Operating Record, are appropriate for evaluating the groundwater monitoring data for the CCR management area.*

Signature:



Illinois P.E. No:

062.054530

Date:

10/29/24



*Expires 11/30/25*