



**Southern Illinois
Power Cooperative**

11543 Lake of Egypt Road
Marion, IL 62959
(618) 964-1448 Fax (618) 964-1867

February 18, 2022

Illinois Environmental Protection Agency
DWPC - Permits MC#15

Attn: Part 845 Coal Combustion Residuals Rule Submittal
1021 North Grand Avenue East
Springfield, IL 62794-9276

**RE: SOUTHERN ILLINOIS POWER COOPERATIVE
MARION POWER PLANT
FORMER EMERY POND
DATA TRANSMITTAL DECEMBER 2022**

Dear Program Reviewer:

As consistent with 35 Illinois Administrative Code Part 845.610(b)(3)(D), please find enclosed the groundwater monitoring data collected in December 2022. This is the third round of data collected since the closure by removal of the former Emery Pond was completed on April 5, 2021. Southern Illinois Power Cooperative will determine compliance with the groundwater protection standards following the fourth post-closure groundwater monitoring event, currently scheduled to be completed within the first quarter (January-March) of 2022.

Should you have any questions or comments regarding this Quarterly Progress Report, do not hesitate to contact me via my email address wwatson@sipower.com.

Sincerely,

Wendell Watson
Director of Environmental Services
Southern Illinois Power Cooperative

cc: Mark Haney - Golder Associates
Danielle Sylvia - Golder Associates



SIPC is an equal opportunity provider and employer.

January 20, 2022

Jason McLaurin
Southern Illinois Power Cooperation
11543 Lake of Egypt Road
Marion, IL 62959
TEL: (618) 964-1448
FAX:



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

RE: Groundwater Monitoring

WorkOrder: 21110629

Dear Jason McLaurin:

TEKLAB, INC received 11 samples on 12/23/2021 08:00:00 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,



Aaron Renner
Project Manager
(630)324-6855
arenner@teklabinc.com



Report Contents

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

Client: Southern Illinois Power Cooperation
Client Project: Groundwater Monitoring

Work Order: 21110629
Report Date: 20-Jan-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Quality Control Results	27
Receiving Check List	41
Chain of Custody	Appended



Definitions

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

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)



Definitions

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

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: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Cooler Receipt Temp: 1.4 °C

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

Radium analysis was performed by Summit Environmental Technologies. See attached 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: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

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

Client: Southern Illinois Power Cooperation
 Client Project: Groundwater Monitoring
 Lab ID: 21110629-001
 Matrix: GROUNDWATER

Work Order: 21110629
 Report Date: 20-Jan-22

Client Sample ID: EBG
 Collection Date: 12/21/2021 11:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		7.91	ft	1	12/21/2021 11:35	R304525
Elevation of groundwater surface	*	0	0		516.96	ft	1	12/21/2021 11:35	R304525
Measuring Point Elevation	*	0	0		524.87	ft	1	12/21/2021 11:35	R304525
FIELD PURGE VOLUME									
Purge Volume	*	0	0		2.99	gal	1	12/21/2021 11:35	R304525
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		13	NTU	1	12/21/2021 11:35	R304525
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		135	mV	1	12/21/2021 11:35	R304525
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		0.715	mS/cm	1	12/21/2021 11:35	R304525
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		14.6	°C	1	12/21/2021 11:35	R304525
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		9.40	mg/L	1	12/21/2021 11:35	R304525
SW-846 9040B FIELD									
pH	*	0	1.00		6.95		1	12/21/2021 11:35	R304525
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20	H	308	mg/L	1	12/30/2021 14:31	R304482
<i>Sample analysis did not meet hold time requirements.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	1	2		12	mg/L	2	12/30/2021 02:49	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	12	20		84	mg/L	2	12/30/2021 02:49	R304396
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.67	mg/L	1	12/28/2021 09:04	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0475	mg/L	1	12/27/2021 20:06	186250
Boron	NELAP	0.0090	0.020	J	0.013	mg/L	1	12/27/2021 20:06	186250
Calcium	NELAP	0.0350	0.100		11.6	mg/L	1	12/27/2021 20:06	186250
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 20:13	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 20:13	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 20:13	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 20:13	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 20:13	186250
Cobalt	NELAP	0.0023	0.0200		< 0.0200	mg/L	100	12/30/2021 20:13	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 20:13	186250
Lithium	*	0.0290	0.0600		< 0.0600	mg/L	100	12/30/2021 20:13	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 20:13	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 20:13	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 20:13	186250
<i>Elevated reporting limit due to sample composition.</i>									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/23/2021 16:55	186251



Laboratory Results

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

Client: Southern Illinois Power Cooperation
Client Project: Groundwater Monitoring
Lab ID: 21110629-001
Matrix: GROUNDWATER

Work Order: 21110629
Report Date: 20-Jan-22

Client Sample ID: EBG
Collection Date: 12/21/2021 11:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067



Laboratory Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Lab ID: 21110629-002

Client Sample ID: EP-1

Matrix: GROUNDWATER

Collection Date: 12/21/2021 15:36

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		5.46	ft	1	12/21/2021 15:36	R304525
Elevation of groundwater surface	*	0	0		514.26	ft	1	12/21/2021 15:36	R304525
Measuring Point Elevation	*	0	0		519.72	ft	1	12/21/2021 15:36	R304525
FIELD PURGE VOLUME									
Purge Volume	*	0	0		3.12	gal	1	12/21/2021 15:36	R304525
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		13	NTU	1	12/21/2021 15:36	R304525
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		191	mV	1	12/21/2021 15:36	R304525
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		3.86	mS/cm	1	12/21/2021 15:36	R304525
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		14.5	°C	1	12/21/2021 15:36	R304525
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		8.59	mg/L	1	12/21/2021 15:36	R304525
SW-846 9040B FIELD									
pH	*	0	1.00		6.37		1	12/21/2021 15:36	R304525
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20	B	2510	mg/L	1	12/28/2021 10:58	R304392
<i>Sample result(s) for TDS exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	5	10		46	mg/L	10	12/30/2021 02:54	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		1480	mg/L	50	12/30/2021 03:05	R304396
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.24	mg/L	1	12/28/2021 09:06	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0193	mg/L	1	12/27/2021 20:08	186250
Boron	NELAP	0.0090	0.0200		1.07	mg/L	1	12/27/2021 20:08	186250
Calcium	NELAP	0.0350	0.100		506	mg/L	1	12/27/2021 20:08	186250
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 20:21	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 20:21	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 20:21	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 20:21	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 20:21	186250
Cobalt	NELAP	0.0023	0.0200		< 0.0200	mg/L	100	12/30/2021 20:21	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 20:21	186250
Lithium	*	0.0290	0.0600		< 0.0600	mg/L	100	12/30/2021 20:21	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 20:21	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 20:21	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 20:21	186250
<i>Elevated reporting limit due to sample composition.</i>									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/23/2021 16:57	186251



Laboratory Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Lab ID: 21110629-002

Client Sample ID: EP-1

Matrix: GROUNDWATER

Collection Date: 12/21/2021 15:36

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067



Laboratory Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Lab ID: 21110629-003

Client Sample ID: EP-2

Matrix: GROUNDWATER

Collection Date: 12/22/2021 10:14

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		9.99	ft	1	12/22/2021 10:14	R304525
Elevation of groundwater surface	*	0	0		503.80	ft	1	12/22/2021 10:14	R304525
Measuring Point Elevation	*	0	0		513.79	ft	1	12/22/2021 10:14	R304525
FIELD PURGE VOLUME									
Purge Volume	*	0	0		1.17	gal	1	12/22/2021 10:14	R304525
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		1.5	NTU	1	12/22/2021 10:14	R304525
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		152	mV	1	12/22/2021 10:14	R304525
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		3.19	mS/cm	1	12/22/2021 10:14	R304525
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		14.4	°C	1	12/22/2021 10:14	R304525
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		2.16	mg/L	1	12/22/2021 10:14	R304525
SW-846 9040B FIELD									
pH	*	0	1.00		6.32		1	12/22/2021 10:14	R304525
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20	B	2090	mg/L	1	12/28/2021 14:51	R304392
<i>Sample result(s) for TDS exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	5	10		43	mg/L	10	12/30/2021 03:16	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		1250	mg/L	50	12/30/2021 03:34	R304396
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.36	mg/L	1	12/28/2021 09:08	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0168	mg/L	1	12/27/2021 20:18	186250
Boron	NELAP	0.0090	0.0200		0.330	mg/L	1	12/29/2021 11:19	186250
Calcium	NELAP	0.0350	0.100		299	mg/L	1	12/27/2021 20:18	186250
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 20:28	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 20:28	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 20:28	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 20:28	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 20:28	186250
Cobalt	NELAP	0.0023	0.0200		< 0.0200	mg/L	100	12/30/2021 20:28	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 20:28	186250
Lithium	*	0.0290	0.0600		< 0.0600	mg/L	100	12/30/2021 20:28	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 20:28	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 20:28	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 20:28	186250
<i>Elevated reporting limit due to sample composition.</i>									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020	J	0.00006	mg/L	1	12/23/2021 17:00	186251



Laboratory Results

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

Client: Southern Illinois Power Cooperation
 Client Project: Groundwater Monitoring
 Lab ID: 21110629-003
 Matrix: GROUNDWATER

Work Order: 21110629
 Report Date: 20-Jan-22

Client Sample ID: EP-2
 Collection Date: 12/22/2021 10:14

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067



Laboratory Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Lab ID: 21110629-004

Client Sample ID: EP-3

Matrix: GROUNDWATER

Collection Date: 12/22/2021 11:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		16.49	ft	1	12/22/2021 11:40	R304525
Elevation of groundwater surface	*	0	0		502.46	ft	1	12/22/2021 11:40	R304525
Measuring Point Elevation	*	0	0		518.95	ft	1	12/22/2021 11:40	R304525
FIELD PURGE VOLUME									
Purge Volume	*	0	0		1.56	gal	1	12/22/2021 11:40	R304525
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		4.2	NTU	1	12/22/2021 11:40	R304525
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		-37	mV	1	12/22/2021 11:40	R304525
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		2.06	mS/cm	1	12/22/2021 11:40	R304525
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		16.9	°C	1	12/22/2021 11:40	R304525
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		5.39	mg/L	1	12/22/2021 11:40	R304525
SW-846 9040B FIELD									
pH	*	0	1.00		6.41		1	12/22/2021 11:40	R304525
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	32	40	B	812	mg/L	2	12/28/2021 14:52	R304392
<i>Sample result(s) for TDS exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	5	10		183	mg/L	10	12/30/2021 03:42	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	61	100		178	mg/L	10	12/30/2021 03:42	R304396
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.51	mg/L	1	12/28/2021 09:10	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0840	mg/L	1	12/27/2021 20:20	186250
Boron	NELAP	0.0090	0.0200		0.0501	mg/L	1	12/29/2021 11:25	186250
Calcium	NELAP	0.0350	0.100		58.9	mg/L	1	12/27/2021 20:20	186250
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 20:36	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 20:36	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 20:36	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 20:36	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 20:36	186250
Cobalt	NELAP	0.0023	0.0200		0.0472	mg/L	100	12/30/2021 20:36	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 20:36	186250
Lithium	*	0.0290	0.0600		0.0736	mg/L	100	12/30/2021 20:36	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 20:36	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 20:36	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 20:36	186250
<i>Elevated reporting limit due to sample composition.</i>									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/23/2021 17:11	186251



Laboratory Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Lab ID: 21110629-004

Client Sample ID: EP-3

Matrix: GROUNDWATER

Collection Date: 12/22/2021 11:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067



Laboratory Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Lab ID: 21110629-005

Client Sample ID: EP-4

Matrix: GROUNDWATER

Collection Date: 12/22/2021 15:53

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		8.50	ft	1	12/22/2021 15:53	R304525
Elevation of groundwater surface	*	0	0		511.24	ft	1	12/22/2021 15:53	R304525
Measuring Point Elevation	*	0	0		519.74	ft	1	12/22/2021 15:53	R304525
FIELD PURGE VOLUME									
Purge Volume	*	0	0		3.12	gal	1	12/22/2021 15:53	R304525
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		10	NTU	1	12/22/2021 15:53	R304525
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		-14	mV	1	12/22/2021 15:53	R304525
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		3.40	mS/cm	1	12/22/2021 15:53	R304525
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		17.2	°C	1	12/22/2021 15:53	R304525
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		5.70	mg/L	1	12/22/2021 15:53	R304525
SW-846 9040B FIELD									
pH	*	0	1.00		6.05		1	12/22/2021 15:53	R304525
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	32	40	B	1450	mg/L	2	12/28/2021 14:52	R304392
<i>Sample result for TDS exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	10	20		477	mg/L	20	12/30/2021 03:45	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	123	200		567	mg/L	20	12/30/2021 03:45	R304396
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10	J	0.09	mg/L	1	12/28/2021 09:12	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0255	mg/L	1	12/27/2021 20:21	186250
Boron	NELAP	0.0090	0.0200	S	11.6	mg/L	1	12/29/2021 11:34	186250
Calcium	NELAP	0.0350	0.100	S	161	mg/L	1	12/27/2021 20:21	186250
<i>Matrix spike control limits for B are not applicable due to high sample/spike ratio.</i>									
<i>Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.</i>									
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 20:43	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 20:43	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 20:43	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 20:43	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 20:43	186250
Cobalt	NELAP	0.0023	0.0200		0.298	mg/L	100	12/30/2021 20:43	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 20:43	186250
Lithium	*	0.0290	0.0600		< 0.0600	mg/L	100	12/30/2021 20:43	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 20:43	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 20:43	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 20:43	186250
<i>Elevated reporting limit due to sample composition.</i>									



Laboratory Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Lab ID: 21110629-005

Client Sample ID: EP-4

Matrix: GROUNDWATER

Collection Date: 12/22/2021 15:53

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/23/2021 17:14	186251
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067



Laboratory Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Lab ID: 21110629-006

Client Sample ID: EP-5

Matrix: GROUNDWATER

Collection Date: 12/21/2021 12:59

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		12.84	ft	1	12/21/2021 12:59	R304525
Elevation of groundwater surface	*	0	0		514.75	ft	1	12/21/2021 12:59	R304525
Measuring Point Elevation	*	0	0		527.59	ft	1	12/21/2021 12:59	R304525
FIELD PURGE VOLUME									
Purge Volume	*	0	0		1.30	gal	1	12/21/2021 12:59	R304525
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		4.9	NTU	1	12/21/2021 12:59	R304525
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		150	mV	1	12/21/2021 12:59	R304525
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		0.724	mS/cm	1	12/21/2021 12:59	R304525
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		14.9	°C	1	12/21/2021 12:59	R304525
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		8.30	mg/L	1	12/21/2021 12:59	R304525
SW-846 9040B FIELD									
pH	*	0	1.00		7.07		1	12/21/2021 12:59	R304525
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20	H	294	mg/L	1	12/30/2021 14:31	R304482
<i>Sample analysis did not meet hold time requirements.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	1	1		4	mg/L	1	12/30/2021 03:50	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	61	100		119	mg/L	10	12/30/2021 03:55	R304396
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.48	mg/L	1	12/28/2021 09:15	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0478	mg/L	1	12/27/2021 20:26	186250
Boron	NELAP	0.0090	0.0200		0.0855	mg/L	1	12/29/2021 14:09	186250
Calcium	NELAP	0.0350	0.100		25.4	mg/L	1	12/27/2021 20:26	186250
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 21:06	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 21:06	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 21:06	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 21:06	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 21:06	186250
Cobalt	NELAP	0.0023	0.0200		< 0.0200	mg/L	100	12/30/2021 21:06	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 21:06	186250
Lithium	*	0.0290	0.0600		< 0.0600	mg/L	100	12/30/2021 21:06	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 21:06	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 21:06	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 21:06	186250
<i>Elevated reporting limit due to sample composition.</i>									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/23/2021 17:16	186251



Laboratory Results

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

Client: Southern Illinois Power Cooperation
Client Project: Groundwater Monitoring
Lab ID: 21110629-006
Matrix: GROUNDWATER

Work Order: 21110629
Report Date: 20-Jan-22

Client Sample ID: EP-5
Collection Date: 12/21/2021 12:59

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067



Laboratory Results

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

Client: Southern Illinois Power Cooperation
 Client Project: Groundwater Monitoring
 Lab ID: 21110629-007
 Matrix: GROUNDWATER

Work Order: 21110629
 Report Date: 20-Jan-22

Client Sample ID: EP-6
 Collection Date: 12/22/2021 09:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		2.40	ft	1	12/22/2021 09:10	R304525
Elevation of groundwater surface	*	0	0		502.71	ft	1	12/22/2021 09:10	R304525
Measuring Point Elevation	*	0	0		505.11	ft	1	12/22/2021 09:10	R304525
FIELD PURGE VOLUME									
Purge Volume	*	0	0		3.12	gal	1	12/22/2021 09:10	R304525
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		7.5	NTU	1	12/22/2021 09:10	R304525
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		270	mV	1	12/22/2021 09:10	R304525
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		0.357	mS/cm	1	12/22/2021 09:10	R304525
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		12.2	°C	1	12/22/2021 09:10	R304525
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		5.61	mg/L	1	12/22/2021 09:10	R304525
SW-846 9040B FIELD									
pH	*	0	1.00		5.28		1	12/22/2021 09:10	R304525
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20	H	192	mg/L	1	12/30/2021 14:32	R304482
<i>Sample analysis did not meet hold time requirements.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	1	1		25	mg/L	1	12/30/2021 03:58	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		48	mg/L	1	12/30/2021 03:58	R304396
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10	J	0.06	mg/L	1	12/28/2021 09:17	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0430	mg/L	1	12/27/2021 20:28	186250
Boron	NELAP	0.0090	0.0200		0.0252	mg/L	1	12/29/2021 14:18	186250
Calcium	NELAP	0.0350	0.100		4.24	mg/L	1	12/27/2021 20:28	186250
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 21:14	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 21:14	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 21:14	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 21:14	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 21:14	186250
Cobalt	NELAP	0.0023	0.020	J	0.0040	mg/L	100	12/30/2021 21:14	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 21:14	186250
Lithium	*	0.0290	0.0600		< 0.0600	mg/L	100	12/30/2021 21:14	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 21:14	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 21:14	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 21:14	186250
<i>Elevated reporting limit due to sample composition.</i>									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020	J	0.00010	mg/L	1	12/23/2021 17:18	186251



Laboratory Results

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

Client: Southern Illinois Power Cooperation
 Client Project: Groundwater Monitoring
 Lab ID: 21110629-007
 Matrix: GROUNDWATER

Work Order: 21110629
 Report Date: 20-Jan-22

Client Sample ID: EP-6
 Collection Date: 12/22/2021 09:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/04/2022 00:00	R305067



Laboratory Results

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

Client: Southern Illinois Power Cooperation
 Client Project: Groundwater Monitoring
 Lab ID: 21110629-008
 Matrix: GROUNDWATER

Work Order: 21110629
 Report Date: 20-Jan-22

Client Sample ID: EP-7
 Collection Date: 12/22/2021 13:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		13.52	ft	1	12/22/2021 13:30	R304525
Elevation of groundwater surface	*	0	0		501.92	ft	1	12/22/2021 13:30	R304525
Measuring Point Elevation	*	0	0		515.44	ft	1	12/22/2021 13:30	R304525
FIELD PURGE VOLUME									
Purge Volume	*	0	0		1.95	gal	1	12/22/2021 13:30	R304525
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		4.3	NTU	1	12/22/2021 13:30	R304525
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		-20	mV	1	12/22/2021 13:30	R304525
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		2.70	mS/cm	1	12/22/2021 13:30	R304525
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		17.1	°C	1	12/22/2021 13:30	R304525
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		2.48	mg/L	1	12/22/2021 13:30	R304525
SW-846 9040B FIELD									
pH	*	0	1.00		6.16		1	12/22/2021 13:30	R304525
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	32	40	B	1270	mg/L	2	12/28/2021 14:54	R304392
<i>Sample result(s) for TDS exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	5	10		186	mg/L	10	12/30/2021 04:12	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	123	200		549	mg/L	20	12/30/2021 19:31	R304463
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.33	mg/L	1	12/28/2021 09:19	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0344	mg/L	1	12/27/2021 20:30	186250
Boron	NELAP	0.0090	0.0200		0.984	mg/L	1	12/29/2021 14:26	186250
Calcium	NELAP	0.0350	0.100		178	mg/L	1	12/27/2021 20:30	186250
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 21:22	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 21:22	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 21:22	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 21:22	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 21:22	186250
Cobalt	NELAP	0.0023	0.0200		0.110	mg/L	100	12/30/2021 21:22	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 21:22	186250
Lithium	*	0.0290	0.0600		< 0.0600	mg/L	100	12/30/2021 21:22	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 21:22	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 21:22	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 21:22	186250
<i>Elevated reporting limit due to sample composition.</i>									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/23/2021 17:21	186251



Laboratory Results

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

Client: Southern Illinois Power Cooperation
 Client Project: Groundwater Monitoring
 Lab ID: 21110629-008
 Matrix: GROUNDWATER

Work Order: 21110629
 Report Date: 20-Jan-22

Client Sample ID: EP-7
 Collection Date: 12/22/2021 13:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/05/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/05/2022 00:00	R305067



Laboratory Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Lab ID: 21110629-009

Client Sample ID: Equipment Blank

Matrix: AQUEOUS

Collection Date: 12/22/2021 15:58

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20	B	< 20	mg/L	1	12/28/2021 14:55	R304392
<i>Contamination present in the MBLK for TDS. Sample results below the reporting limit are reportable per the TNI Standard.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	1	1		< 1	mg/L	1	12/30/2021 04:30	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		< 10	mg/L	1	12/30/2021 04:30	R304396
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		< 0.10	mg/L	1	12/28/2021 09:29	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		< 0.0025	mg/L	1	12/27/2021 20:32	186250
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	12/27/2021 20:32	186250
Calcium	NELAP	0.0350	0.100		< 0.100	mg/L	1	12/27/2021 20:32	186250
<i>CCV recovered outside the upper control limits for B. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>									
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 22:00	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 22:00	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 22:00	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 22:00	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 22:00	186250
Cobalt	NELAP	0.0023	0.0200		< 0.0200	mg/L	100	12/30/2021 22:00	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 22:00	186250
Lithium	*	0.0290	0.0600		< 0.0600	mg/L	100	12/30/2021 22:00	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 22:00	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 22:00	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 22:00	186250
<i>Elevated reporting limit due to sample composition.</i>									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/23/2021 17:23	186251
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/05/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/05/2022 00:00	R305067



Laboratory Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

Lab ID: 21110629-010

Client Sample ID: Field Blank

Matrix: AQUEOUS

Collection Date: 12/22/2021 11:44

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20	H	< 20	mg/L	1	12/30/2021 14:33	R304482
<i>Sample analysis did not meet hold time requirements.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	1	1		< 1	mg/L	1	12/30/2021 04:36	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		< 10	mg/L	1	12/30/2021 04:35	R304396
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		< 0.10	mg/L	1	12/28/2021 09:32	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		< 0.0025	mg/L	1	12/27/2021 20:42	186250
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	12/27/2021 20:42	186250
Calcium	NELAP	0.0350	0.100		< 0.100	mg/L	1	12/27/2021 20:42	186250
<i>CCV recovered outside the upper control limits for B. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>									
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 22:07	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 22:07	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 22:07	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 22:07	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 22:07	186250
Cobalt	NELAP	0.0023	0.0200		< 0.0200	mg/L	100	12/30/2021 22:07	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 22:07	186250
Lithium	*	0.0290	0.0600		< 0.0600	mg/L	100	12/30/2021 22:07	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 22:07	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 22:07	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 22:07	186250
<i>Elevated reporting limit due to sample composition.</i>									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/23/2021 17:35	186251
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/05/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/05/2022 00:00	R305067



Laboratory Results

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

Client: Southern Illinois Power Cooperation
 Client Project: Groundwater Monitoring
 Lab ID: 21110629-011
 Matrix: GROUNDWATER

Work Order: 21110629
 Report Date: 20-Jan-22

Client Sample ID: Field Duplicate

Collection Date: 12/22/2021 10:14

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		9.99	ft	1	12/22/2021 10:14	R304525
Elevation of groundwater surface	*	0	0		503.80	ft	1	12/22/2021 10:14	R304525
Measuring Point Elevation	*	0	0		513.79	ft	1	12/22/2021 10:14	R304525
FIELD PURGE VOLUME									
Purge Volume	*	0	0		1.17	gal	1	12/22/2021 10:14	R304525
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		1.5	NTU	1	12/22/2021 10:14	R304525
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		152	mV	1	12/22/2021 10:14	R304525
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		3.19	mS/cm	1	12/22/2021 10:14	R304525
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		14.4	°C	1	12/22/2021 10:14	R304525
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		2.16	mg/L	1	12/22/2021 10:14	R304525
SW-846 9040B FIELD									
pH	*	0	1.00		6.32		1	12/22/2021 10:14	R304525
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20	B	1980	mg/L	1	12/28/2021 14:56	R304392
<i>Sample result for TDS exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>									
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	*	5	10		44	mg/L	10	12/30/2021 04:38	R304397
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		1210	mg/L	50	12/30/2021 04:43	R304396
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.34	mg/L	1	12/28/2021 09:34	R304308
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0172	mg/L	1	12/27/2021 20:43	186250
Boron	NELAP	0.0090	0.0200		0.332	mg/L	1	12/29/2021 14:20	186250
Calcium	NELAP	0.0350	0.100		300	mg/L	1	12/27/2021 20:43	186250
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0090	0.0200		< 0.0200	mg/L	100	12/30/2021 22:15	186250
Arsenic	NELAP	0.0080	0.0200		< 0.0200	mg/L	100	12/30/2021 22:15	186250
Beryllium	NELAP	0.0050	0.0200		< 0.0200	mg/L	100	12/30/2021 22:15	186250
Cadmium	NELAP	0.0030	0.0200		< 0.0200	mg/L	100	12/30/2021 22:15	186250
Chromium	NELAP	0.0140	0.0300		< 0.0300	mg/L	100	12/30/2021 22:15	186250
Cobalt	NELAP	0.0023	0.0200		< 0.0200	mg/L	100	12/30/2021 22:15	186250
Lead	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 22:15	186250
Lithium	*	0.0290	0.0600		< 0.0600	mg/L	100	12/30/2021 22:15	186250
Molybdenum	NELAP	0.0120	0.0300		< 0.0300	mg/L	100	12/30/2021 22:15	186250
Selenium	NELAP	0.0120	0.0200		< 0.0200	mg/L	100	12/30/2021 22:15	186250
Thallium	NELAP	0.0190	0.0400		< 0.0400	mg/L	100	12/30/2021 22:15	186250
<i>Elevated reporting limit due to sample composition.</i>									
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00006	0.00020	J	0.00006	mg/L	1	12/23/2021 17:37	186251



Laboratory Results

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

Client: Southern Illinois Power Cooperation
Client Project: Groundwater Monitoring
Lab ID: 21110629-011
Matrix: GROUNDWATER

Work Order: 21110629
Report Date: 20-Jan-22

Client Sample ID: Field Duplicate

Collection Date: 12/22/2021 10:14

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	01/05/2022 00:00	R305067
Radium-228	*	0	0		See Attached	pci/L	1	01/05/2022 00:00	R305067



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

STANDARD METHODS 2510 B FIELD

Batch R304525		SampType: LCS		Units µS/cm							Date Analyzed
SampID: LCS-R304525											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		1430	1409	0	101.5	90	110	12/22/2021	
Spec. Conductance, Field	*	0		1450	1409	0	102.9	90	110	12/21/2021	

SW-846 9040B FIELD

Batch R304525		SampType: LCS		Units							Date Analyzed
SampID: LCS-R304525											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.07	7.000	0	101.0	98.57	101.4	12/21/2021	
pH	*	1.00		7.00	7.000	0	100.0	98.57	101.4	12/22/2021	

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R304392		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	S	38	16.00	0	237.5	-100	100	12/28/2021	

Batch R304392		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	B	998	1000	0	99.8	90	110	12/28/2021	

Batch R304392		SampType: DUP		Units mg/L							Date Analyzed
SampID: 21110629-011ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids	*	20	B	2050				1978	3.48	12/28/2021	

Batch R304482		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	12/30/2021	

Batch R304482		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		922	1000	0	92.2	90	110	12/30/2021	



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R304482		SampType: DUP		Units mg/L				RPD Limit 5			Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids	*	20	H	200				192.0	4.08	12/30/2021	

STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R304397		SampType: MBLK		Units mg/L				Low Limit	High Limit	Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride	*	1		< 1	0.5000	0	0	-100	100	12/29/2021

Batch R304397		SampType: LCS		Units mg/L				Low Limit	High Limit	Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride	*	1		20	20.00	0	102.2	90	110	12/29/2021

Batch R304397		SampType: MS		Units mg/L				Low Limit	High Limit	Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride	*	10		252	200.0	46.20	103.1	85	115	12/30/2021

Batch R304397		SampType: MSD		Units mg/L				RPD Limit 15			Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride	*	10		256	200.0	46.20	104.8	252.4	1.34	12/30/2021	

Batch R304397		SampType: MS		Units mg/L				Low Limit	High Limit	Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride	*	1	S	38	20.00	22.43	76.1	85	115	12/29/2021

Batch R304397		SampType: MSD		Units mg/L				RPD Limit 15			Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride	*	1	S	39	20.00	22.43	81.9	37.65	3.03	12/29/2021	



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R304397		SampType: MS		Units mg/L							Date Analyzed
SampID: 21120916-004AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	2	S	53	40.00	23.33	75.2	85	115	12/29/2021	

Batch R304397		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21120916-004AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride	*	2	S	55	40.00	23.33	78.0	53.42	2.07	12/29/2021		

Batch R304397		SampType: MS		Units mg/L							Date Analyzed
SampID: 21120916-006AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	1	S	35	20.00	20.87	71.7	85	115	12/29/2021	

Batch R304397		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21120916-006AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride	*	1	S	35	20.00	20.87	71.3	35.21	0.23	12/29/2021		

Batch R304397		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121023-001CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	2		96	40.00	58.87	92.2	85	115	12/29/2021	

Batch R304397		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121023-001CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride	*	2		93	40.00	58.87	86.5	95.75	2.40	12/29/2021		

Batch R304397		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121037-001CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		23	20.00	1.810	107.6	85	115	12/30/2021	

Batch R304397		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121037-001CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		1		21	20.00	1.810	96.6	23.32	9.85	12/30/2021		



Quality Control Results

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

Client: Southern Illinois Power Cooperation
 Client Project: Groundwater Monitoring

Work Order: 21110629
 Report Date: 20-Jan-22

STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R304397		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121183-001CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	1		28	20.00	9.860	92.2	85	115	12/29/2021	

Batch R304397		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121183-001CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride	*	1		28	20.00	9.860	91.0	28.31	0.92	12/29/2021		

Batch R304397		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121374-001EMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	50		1210	1000	264.1	94.1	85	115	12/30/2021	

Batch R304397		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121374-001EMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride	*	50		1220	1000	264.1	95.1	1206	0.79	12/30/2021		

Batch R304397		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121384-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	10		478	200.0	282.8	97.8	85	115	12/30/2021	

Batch R304397		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121384-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride	*	10		478	200.0	282.8	97.6	478.5	0.08	12/30/2021		

Batch R304464		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	1		< 1	0.5000	0	0	-100	100	12/30/2021	

Batch R304464		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	1		21	20.00	0	103.0	90	110	12/30/2021	



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R304464		SampType: MS		Units mg/L							Date Analyzed
SampID: 21120863-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	5		139	100.0	47.00	92.1	85	115	12/30/2021	

Batch R304464		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21120863-001BMDS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride	*	5		137	100.0	47.00	89.6	139.1	1.78	12/30/2021		

Batch R304464		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121007-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	20		591	400.0	239.8	87.7	85	115	12/30/2021	

Batch R304464		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121007-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride	*	20		600	400.0	239.8	90.0	590.5	1.57	12/30/2021		

Batch R304464		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121556-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	1		24	20.00	4.170	99.0	85	115	12/30/2021	

Batch R304464		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121556-001BMDS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride	*	1		24	20.00	4.170	99.6	23.96	0.54	12/30/2021		

Batch R304464		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121641-001CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	1		22	20.00	0.9700	104.1	85	115	12/31/2021	

Batch R304464		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121641-001CMDS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride	*	1		22	20.00	0.9700	104.8	21.79	0.64	12/31/2021		



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

SW-846 9036 (TOTAL)											
Batch R304396		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	12/29/2021	
Batch R304396		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		21	20.00	0	103.4	90	110	12/29/2021	
Batch R304396		SampType: MS		Units mg/L							
SampID: 21110629-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		500		2440	1000	1483	96.1	85	115	12/30/2021	
Batch R304396		SampType: MSD		Units mg/L							
SampID: 21110629-002AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		500	E	2500	1000	1483	102.2	2444	2.48	12/30/2021	
Batch R304396		SampType: MS		Units mg/L							
SampID: 21120916-004AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		20	SE	113	40.00	85.94	67.5	90	110	12/29/2021	
Batch R304396		SampType: MSD		Units mg/L							
SampID: 21120916-004AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		20	SE	115	40.00	85.94	71.8	112.9	1.49	12/29/2021	
Batch R304396		SampType: MS		Units mg/L							
SampID: 21120916-006AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		200		781	400.0	399.9	95.2	90	110	12/29/2021	
Batch R304396		SampType: MSD		Units mg/L							
SampID: 21120916-006AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		200		775	400.0	399.9	93.8	780.5	0.73	12/29/2021	



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

SW-846 9036 (TOTAL)												
Batch R304396		SampType: MS		Units mg/L							Date Analyzed	
SampID: 21121023-001CMS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Sulfate		20	SE	119	40.00	92.83	66.4	90	110	12/29/2021		
Batch R304396		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 21121023-001CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		20	SE	117	40.00	92.83	59.5	119.4	2.32	12/29/2021		
Batch R304396		SampType: MS		Units mg/L							Date Analyzed	
SampID: 21121037-001CMS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Sulfate		10		25	20.00	6.270	92.6	85	115	12/30/2021		
Batch R304396		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 21121037-001CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		10		24	20.00	6.270	89.4	24.80	2.66	12/30/2021		
Batch R304396		SampType: MS		Units mg/L							Date Analyzed	
SampID: 21121122-007AMS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Sulfate		100		474	200.0	258.0	108.0	85	115	12/29/2021		
Batch R304396		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 21121122-007AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		100		443	200.0	258.0	92.5	474.0	6.73	12/29/2021		
Batch R304396		SampType: MS		Units mg/L							Date Analyzed	
SampID: 21121183-001CMS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Sulfate		100		430	200.0	230.0	100.2	90	110	12/30/2021		
Batch R304396		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 21121183-001CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		100		428	200.0	230.0	98.9	430.4	0.57	12/30/2021		



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

SW-846 9036 (TOTAL)

Batch R304396		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121374-001EMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		500		1980	1000	902.0	107.8	90	110	12/30/2021	

Batch R304396		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 21121374-001EMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Sulfate		500		1950	1000	902.0	105.1	1980	1.36	12/30/2021		

Batch R304463		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		10		< 10	6.140	0	0	-100	100	12/30/2021	

Batch R304463		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		10		21	20.00	0	103.7	90	110	12/30/2021	

Batch R304463		SampType: MS		Units mg/L							Date Analyzed
SampID: 21120916-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		500		1580	1000	536.8	104.4	90	110	12/30/2021	

Batch R304463		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 21120916-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Sulfate		500		1590	1000	536.8	105.0	1580	0.42	12/30/2021		

Batch R304463		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121384-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		1000		3650	2000	1670	99.0	90	110	12/30/2021	

Batch R304463		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 21121384-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Sulfate		1000		3500	2000	1670	91.6	3650	4.14	12/30/2021		



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

SW-846 9214 (TOTAL)

Batch R304308		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	
Fluoride		0.10		< 0.10	0.0370	0	0	-100	100	12/28/2021	

Batch R304308		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	
Fluoride		0.10		1.01	1.000	0	101.1	90	110	12/28/2021	

Batch R304308		SampType: MS		Units mg/L							Date Analyzed
SampID: 21110629-008AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.58	2.000	0.3270	112.6	75	125	12/28/2021	

Batch R304308		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21110629-008AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Fluoride		0.10		2.56	2.000	0.3270	111.8	2.578	0.62	12/28/2021		

Batch R304308		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121462-005AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		4.62	2.000	2.336	114.0	75	125	12/28/2021	

Batch R304308		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121462-005AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Fluoride		0.10		4.59	2.000	2.336	112.8	4.615	0.50	12/28/2021		

Batch R304308		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121462-009AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		1.00		47.0	20.00	26.42	102.8	75	125	12/28/2021	

Batch R304308		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121462-009AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Fluoride		1.00		47.0	20.00	26.42	102.7	46.98	0.04	12/28/2021		



Quality Control Results

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

Client: Southern Illinois Power Cooperation
 Client Project: Groundwater Monitoring

Work Order: 21110629
 Report Date: 20-Jan-22

SW-846 9214 (TOTAL)

Batch R304308		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121521-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		2.82	2.000	0.5690	112.7	75	125	12/28/2021	

Batch R304308		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21121521-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Fluoride		0.10		2.80	2.000	0.5690	111.3	2.823	1.00	12/28/2021		

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

Batch 186250		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-186250											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Barium		0.0025		< 0.0025	0.0007	0	0	-100	100	12/27/2021	
Boron		0.0200		< 0.0200	0.0090	0	0	-100	100	12/27/2021	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	12/27/2021	

Batch 186250		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-186250											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Barium		0.0025		2.03	2.000	0	101.5	85	115	12/27/2021	
Boron		0.0200		0.497	0.5000	0	99.3	85	115	12/27/2021	
Calcium		0.100		2.48	2.500	0	99.4	85	115	12/27/2021	

Batch 186250		SampType: MS		Units mg/L							Date Analyzed
SampID: 21110629-005CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Barium		0.0025		2.06	2.000	0.02550	101.7	75	125	12/27/2021	
Boron		0.0200	S	11.8	0.5000	11.56	58.0	75	125	12/29/2021	
Calcium		0.100	S	164	2.500	160.8	145.2	75	125	12/27/2021	

Batch 186250		SampType: MSD		Units mg/L							RPD Limit 20	Date Analyzed
SampID: 21110629-005CMS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Barium		0.0025		2.08	2.000	0.02550	102.7	2.060	0.97	12/27/2021		
Boron		0.0200	S	11.8	0.5000	11.56	57.7	11.85	0.02	12/29/2021		
Calcium		0.100		164	2.500	160.8	119.6	164.4	0.39	12/27/2021		



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

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

Batch 186250		SampType: MS		Units mg/L							Date Analyzed
SampID: 21121435-009AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Lead		0.0750		1.21	0.5000	0.6995	101.3	75	125	12/29/2021	

Batch 186250		SampType: MSD		Units mg/L							RPD Limit 20	Date Analyzed
SampID: 21121435-009AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Lead		0.0750		1.20	0.5000	0.6995	100.1	1.206	0.50	12/29/2021		

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

Batch 186250		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-186250											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	12/29/2021	
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	12/29/2021	
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	12/29/2021	
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	12/29/2021	
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	12/29/2021	
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	12/29/2021	
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	12/29/2021	
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	12/29/2021	
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	12/29/2021	
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	12/29/2021	
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	12/29/2021	



Quality Control Results

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

Client: Southern Illinois Power Cooperation
 Client Project: Groundwater Monitoring

Work Order: 21110629
 Report Date: 20-Jan-22

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

Batch 186250		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-186250											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		0.483	0.5000	0	96.7	85	115	12/29/2021	
Arsenic		0.0010		0.520	0.5000	0	104.0	85	115	12/29/2021	
Beryllium		0.0010		0.0472	0.0500	0	94.4	85	115	12/29/2021	
Cadmium		0.0010		0.0492	0.0500	0	98.3	85	115	12/29/2021	
Chromium		0.0015		0.191	0.2000	0	95.4	85	115	12/29/2021	
Cobalt		0.0010		0.497	0.5000	0	99.3	85	115	12/29/2021	
Lead		0.0010		0.493	0.5000	0	98.6	85	115	12/29/2021	
Lithium	*	0.0030		0.500	0.5000	0	100.0	85	115	12/29/2021	
Molybdenum		0.0015		0.488	0.5000	0	97.6	85	115	12/29/2021	
Selenium		0.0010		0.485	0.5000	0	97.1	85	115	12/29/2021	
Thallium		0.0020		0.235	0.2500	0	93.9	85	115	12/29/2021	

Batch 186250		SampType: MS		Units mg/L							Date Analyzed
SampID: 21110629-005CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0200		0.450	0.5000	0	89.9	75	125	12/30/2021	
Arsenic		0.0200		0.502	0.5000	0	100.5	75	125	12/30/2021	
Beryllium		0.0200		0.0497	0.0500	0	99.4	75	125	12/30/2021	
Cadmium		0.0200		0.0458	0.0500	0	91.7	75	125	12/30/2021	
Chromium		0.0300		0.199	0.2000	0	99.3	75	125	12/30/2021	
Cobalt		0.0200		0.784	0.5000	0.2978	97.1	75	125	12/30/2021	
Lead		0.0200		0.485	0.5000	0	97.0	75	125	12/30/2021	
Lithium	*	0.0600		0.534	0.5000	0	106.9	75	125	12/30/2021	
Molybdenum		0.0300		0.457	0.5000	0	91.4	75	125	12/30/2021	
Selenium		0.0200		0.478	0.5000	0	95.7	75	125	12/30/2021	
Thallium		0.0400		0.247	0.2500	0	98.9	75	125	12/30/2021	



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

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

Batch 186250		SampType: MSD		Units mg/L				RPD Limit 20			
SampID: 21110629-005CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Antimony		0.0200		0.451	0.5000	0	90.3	0.4496	0.39	12/30/2021	
Arsenic		0.0200		0.491	0.5000	0	98.2	0.5023	2.28	12/30/2021	
Beryllium		0.0200		0.0496	0.0500	0	99.2	0.04971	0.19	12/30/2021	
Cadmium		0.0200		0.0452	0.0500	0	90.4	0.04583	1.34	12/30/2021	
Chromium		0.0300		0.199	0.2000	0	99.5	0.1987	0.16	12/30/2021	
Cobalt		0.0200		0.726	0.5000	0.2978	85.6	0.7835	7.64	12/30/2021	
Lead		0.0200		0.466	0.5000	0	93.1	0.4849	4.05	12/30/2021	
Lithium	*	0.0600		0.527	0.5000	0	105.4	0.5345	1.40	12/30/2021	
Molybdenum		0.0300		0.463	0.5000	0	92.6	0.4568	1.32	12/30/2021	
Selenium		0.0200		0.475	0.5000	0	95.1	0.4784	0.66	12/30/2021	
Thallium		0.0400		0.247	0.2500	0	99.0	0.2474	0.05	12/30/2021	

SW-846 7470A (TOTAL)

Batch 186251		SampType: MBLK		Units mg/L						
SampID: MBLK-186251										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	12/23/2021

Batch 186251		SampType: LCS		Units mg/L						
SampID: LCS-186251										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00515	0.0050	0	103.0	85	115	12/27/2021

Batch 186251		SampType: MS		Units mg/L						
SampID: 21110629-003CMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00431	0.0050	0.00005570	85.1	75	125	12/23/2021

Batch 186251		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 21110629-003CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020		0.00440	0.0050	0.00005570	87.0	0.004309	2.17	12/23/2021	



Quality Control Results

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

Client: Southern Illinois Power Cooperation

Work Order: 21110629

Client Project: Groundwater Monitoring

Report Date: 20-Jan-22

SW-846 7470A (TOTAL)

Batch 186251		SampType: MS		Units mg/L							Date Analyzed
SampID: 21110629-009CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00481	0.0050	0	96.1	75	125	12/23/2021	

Batch 186251		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 21110629-009CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		0.00475	0.0050	0	95.0	0.004806	1.19	12/23/2021		



Receiving Check List

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

Client: Southern Illinois Power Cooperation
Client Project: Groundwater Monitoring

Work Order: 21110629
Report Date: 20-Jan-22

Carrier: Adam Bridges

Received By: PWR

Completed by: *Patrick Riley*
On: 23-Dec-21
Patrick Riley

Reviewed by: *Elizabeth A. Hurley*
On: 23-Dec-21
Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No
- Type of thermal preservation? None 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

Temp °C **1.4**
Dry Ice

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 #77625. - patrickriley - 12/23/2021 8:49:22 AM

CHAIN OF CUSTODY pg. 1 of 2 Work order # 2110629

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

Client: Southern Illinois Power Cooperation
 Address: 11543 Lake of Egypt Road
 City / State / Zip: Marion, IL 62959
 Contact: Jason McLaurin
 E-Mail: jmcLaurin@sipower.org
 Phone: (618) 964-1448
 Fax:

Samples on: ICE BLUE ICE NO ICE 1.4 °C LG# 1
 Preserved in: LAB FIELD 77625 FOR LAB USE ONLY
 Lab Notes: 8/19/2021

Client Comments: X
 ICP: Ba B Ca
 ICP/MS: Sb As Be Cd Cr Co Pb Li Mo Se Tl
 Field Parameters = Elevations, pH, Conductivity, Temperature, Turbidity, DO, ORP and Purge Volume
 Ra226/228: subcontract to Pace-National

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: Groundwater Monitoring
 Sample Collector's Name: JRILEY A. BLEDGES

Lab Use Only	Sample Identification	Date/Time Sampled	Billing Instructions		HNO3	UNP
			1-2 Day (100% Surcharge)	3 Day (50% Surcharge)		
<u>2110629</u>	<u>EBG</u>	<u>12/21/21 1335</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>3</u>
<u>001</u>	<u>EP-1</u>	<u>12/21/21 1536</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>3</u>
<u>002</u>	<u>EP-2</u>	<u>12/22/21 1014</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>3</u>
<u>003</u>	<u>EP-3</u>	<u>12/22/21 1140</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>3</u>
<u>004</u>	<u>EP-4</u>	<u>12/22/21 1550</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>3</u>
<u>005</u>	<u>EP-5</u>	<u>12/22/21 1259</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>3</u>
<u>006</u>	<u>EP-6</u>	<u>12/22/21 0910</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>3</u>
<u>007</u>	<u>EP-7</u>	<u>12/22/21 1530</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>3</u>
<u>008</u>	Equipment Blank	<u>12/22/21 1558</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>3</u>
<u>009</u>	Field Blank	<u>12/22/21 1144</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>3</u>
<u>010</u>						

MATRIX	INDICATE ANALYSIS REQUESTED										
	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Ra226/228	Sulfate	TDS		
Groundwater	X	X	X	X	X	X	X	X	X		
Aqueous	X	X	X	X	X	X	X	X	X		

Relinquished By: [Signature] Date/Time: 12-23-21 0800

Received By: [Signature] Date/Time: 12/21/21 0800

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.

Bottle Order: 69155



12/22/21

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

Client: Southern Illinois Power Cooperation
 Address: 11543 Lake of Egypt Road
 City / State / Zip: Marion, IL 62859
 Contact: Jason McLaurin
 E-Mail: jmcLaurin@sipower.org
 Phone: (618) 964-1448
 Fax:


Samples on: ICE BLUE ICE NO ICE °C LTG#
 Preserved in: LAB FIELD FOR LAB USE ONLY
 Lab Notes:
 Client Comments
 ICP: Ba B Ca
 ICP/MS: Sb As Be Cd Cr Co Pb U Mo Se Ti
 Field Parameters = Elevations, pH, Conductivity, Temperature, Turbidity, DO, ORP and Purge Volume
 Ra226/228: subcontract to Pace-National

Project Name/Number	Sample Collector's Name	Results Requested	Billing Instructions	# and Type of Containers	INDICATE ANALYSIS REQUESTED
Groundwater Monitoring		<input type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		HNO3 UNP	<input type="checkbox"/> Chloride <input type="checkbox"/> Field Parameters <input type="checkbox"/> Fluoride <input type="checkbox"/> ICP Metals <input type="checkbox"/> ICP/MS Metals <input type="checkbox"/> Mercury <input type="checkbox"/> Ra226/228 <input type="checkbox"/> Sulfate <input type="checkbox"/> TDS
2110029		Field Duplicate	12/22/10/14	1 3	<input checked="" type="checkbox"/> Groundwater <input type="checkbox"/> Aqueous

Relinquished By	Date/Time	Received By	Date/Time
<i>[Signature]</i>	12/23/21 0800	<i>[Signature]</i>	12/23/21 0800

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.

Bottle Order: 69165





ANALYTICAL REPORT

January 18, 2022

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

TEKLAB, Inc.

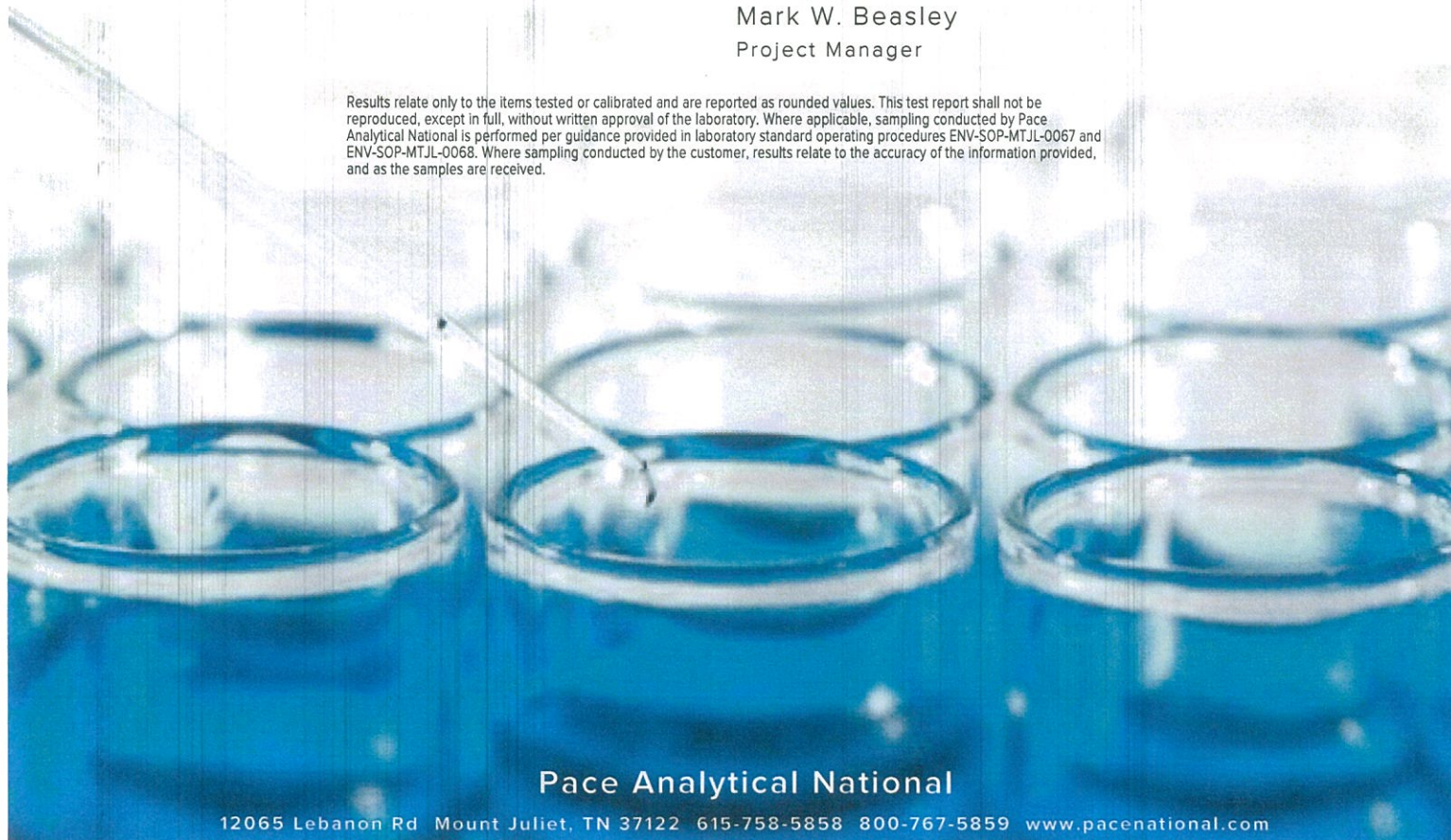
Sample Delivery Group: L1445869
 Samples Received: 12/27/2021
 Project Number: 21110629
 Description:

Report To: Elizabeth Hurley
 5445 Horseshoe Lake Road
 Collinsville, IL 62234

Entire Report Reviewed By:

Mark W. Beasley
 Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

ACCOUNT:
TEKLAB, Inc.

PROJECT:
21110629

SDG:
L1445869

DATE/TIME:
01/18/22 14:54

PAGE:
1 of 21

TABLE OF CONTENTS

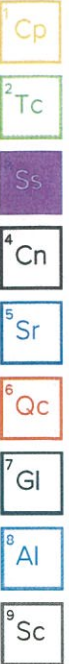
Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
21110629-001 L1445869-01	6
21110629-002 L1445869-02	7
21110629-003 L1445869-03	8
21110629-004 L1445869-04	9
21110629-005 L1445869-05	10
21110629-006 L1445869-06	11
21110629-007 L1445869-07	12
21110629-008 L1445869-08	13
21110629-009 L1445869-09	14
21110629-010 L1445869-10	15
21110629-011 L1445869-11	16
Qc: Quality Control Summary	17
Radiochemistry by Method 904/9320	17
Radiochemistry by Method SM7500Ra B M	18
Gl: Glossary of Terms	19
Al: Accreditations & Locations	20
Sc: Sample Chain of Custody	21



SAMPLE SUMMARY

21110629-001 L1445869-01 Non-Potable Water Collected by
Collected date/time
Received date/time

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/04/22 13:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/04/22 15:02	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/04/22 15:02	RGT	Mt. Juliet, TN



21110629-002 L1445869-02 Non-Potable Water Collected by
Collected date/time
Received date/time

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/04/22 13:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/04/22 15:02	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/04/22 15:02	RGT	Mt. Juliet, TN

21110629-003 L1445869-03 Non-Potable Water Collected by
Collected date/time
Received date/time

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/04/22 13:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/04/22 15:02	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/04/22 15:02	RGT	Mt. Juliet, TN

21110629-004 L1445869-04 Non-Potable Water Collected by
Collected date/time
Received date/time

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/04/22 13:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/04/22 15:02	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/04/22 15:02	RGT	Mt. Juliet, TN

21110629-005 L1445869-05 Non-Potable Water Collected by
Collected date/time
Received date/time

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/04/22 15:02	RGT	Mt. Juliet, TN

21110629-006 L1445869-06 Non-Potable Water Collected by
Collected date/time
Received date/time

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/04/22 15:02	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

21110629-007 L1445869-07 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/04/22 15:02	RGT	Mt. Juliet, TN



21110629-008 L1445869-08 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/05/22 14:05	RGT	Mt. Juliet, TN

21110629-009 L1445869-09 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/05/22 14:05	RGT	Mt. Juliet, TN

21110629-010 L1445869-10 Non-Potable Water

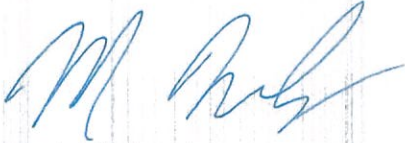
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/05/22 14:05	RGT	Mt. Juliet, TN

21110629-011 L1445869-11 Non-Potable Water

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1792917	1	12/28/21 10:30	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1797372	1	01/03/22 15:00	01/17/22 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1797372	1	01/03/22 15:00	01/05/22 14:05	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Mark W. Beasley
Project Manager

¹Cp

²Tc

³Ss

Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

21110629-001

Collected date/time: 12/21/21 11:35

SAMPLE RESULTS - 01

L1445869

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.194	<u>U</u>	0.303	0.565	01/04/2022 13:30	WG1792917
(T) Barium	104			62.0-143	01/04/2022 13:30	WG1792917
(T) Yttrium	101			79.0-136	01/04/2022 13:30	WG1792917

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.297	<u>U</u>	0.451	0.783	01/04/2022 15:02	WG1797372

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.104	<u>J</u>	0.148	0.218	01/04/2022 15:02	WG1797372
(T) Barium-133	97.9			30.0-143	01/04/2022 15:02	WG1797372

6 Qc

7 Gl

8 Al

9 Sc

21110629-002

Collected date/time: 12/21/21 15:36

SAMPLE RESULTS - 02

L1445869

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.255	<u>U</u>	0.400	0.745	01/04/2022 13:30	WG1792917
(T) Barium	103			62.0-143	01/04/2022 13:30	WG1792917
(T) Yttrium	103			79.0-136	01/04/2022 13:30	WG1792917

¹ Cp

² Tc

³ Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.756	<u>J</u>	0.730	1.06	01/04/2022 15:02	WG1797372

⁴ Cn

⁵ Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.501		0.330	0.318	01/04/2022 15:02	WG1797372
(T) Barium-133	91.1			30.0-143	01/04/2022 15:02	WG1797372

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

21110629-003

Collected date/time: 12/21/21 10:14

SAMPLE RESULTS - 03

L1445869

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.145	<u>U</u>	0.282	0.529	01/04/2022 13:30	WG1792917
(T) Barium	101			62.0-143	01/04/2022 13:30	WG1792917
(T) Yttrium	96.0			79.0-136	01/04/2022 13:30	WG1792917

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.374	<u>J</u>	0.512	0.813	01/04/2022 15:02	WG1797372

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.228	<u>J</u>	0.230	0.284	01/04/2022 15:02	WG1797372
(T) Barium-133	96.0			30.0-143	01/04/2022 15:02	WG1797372

6 Qc

7 Gl

8 Al

9 Sc

21110629-004

Collected date/time: 12/21/21 11:40

SAMPLE RESULTS - 04

L1445869

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.768		0.310	0.558	01/04/2022 13:30	WG1792917
(T) Barium	101			62.0-143	01/04/2022 13:30	WG1792917
(T) Yttrium	94.7			79.0-136	01/04/2022 13:30	WG1792917

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.964		0.549	0.886	01/04/2022 15:02	WG1797372

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.196	J	0.239	0.328	01/04/2022 15:02	WG1797372
(T) Barium-133	98.0			30.0-143	01/04/2022 15:02	WG1797372

⁶Qc

⁷Gl

⁸Al

⁹Sc

21110629-005

Collected date/time: 12/21/21 15:53

SAMPLE RESULTS - 05

L1445869

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.21		0.419	0.360	01/17/2022 14:30	WG1792917
(T) Barium	112			62.0-143	01/17/2022 14:30	WG1792917
(T) Yttrium	92.0			79.0-136	01/17/2022 14:30	WG1792917

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.38		0.709	0.793	01/17/2022 14:30	WG1797372

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.170	<u>J</u>	0.290	0.433	01/04/2022 15:02	WG1797372
(T) Barium-133	92.4			30.0-143	01/04/2022 15:02	WG1797372

⁶Qc

⁷Gl

⁸Al

⁹Sc

21110629-006

Collected date/time: 12/21/21 12:59

SAMPLE RESULTS - 06

L1445869

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.125	U	0.367	0.336	01/17/2022 14:30	WG1792917
(T) Barium	101			62.0-143	01/17/2022 14:30	WG1792917
(T) Yttrium	101			79.0-136	01/17/2022 14:30	WG1792917

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.564	J	0.708	0.632	01/17/2022 14:30	WG1797372

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.564		0.341	0.296	01/04/2022 15:02	WG1797372
(T) Barium-133	95.5			30.0-143	01/04/2022 15:02	WG1797372

6 Qc

7 Gl

8 Al

9 Sc

21110629-007

Collected date/time: 12/22/21 09:10

SAMPLE RESULTS - 07

L1445869

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.297	J	0.365	0.327	01/17/2022 14:30	WG1792917
(T) Barium	98.4			62.0-143	01/17/2022 14:30	WG1792917
(T) Yttrium	103			79.0-136	01/17/2022 14:30	WG1792917

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.362	J	0.492	0.549	01/17/2022 14:30	WG1797372

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0641	U	0.127	0.222	01/04/2022 15:02	WG1797372
(T) Barium-133	97.5			30.0-143	01/04/2022 15:02	WG1797372

⁶Qc

⁷Gl

⁸Al

⁹Sc

21110629-008

Collected date/time: 12/22/21 13:30

SAMPLE RESULTS - 08

L1445869

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0686	J	0.373	0.338	01/17/2022 14:30	WG1792917
(T) Barium	103			62.0-143	01/17/2022 14:30	WG1792917
(T) Yttrium	102			79.0-136	01/17/2022 14:30	WG1792917

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.172	J	0.547	0.615	01/17/2022 14:30	WG1797372

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.103	J	0.174	0.277	01/05/2022 14:05	WG1797372
(T) Barium-133	96.0			30.0-143	01/05/2022 14:05	WG1797372

6 Qc

7 Gl

8 Al

9 Sc

21110629-009

Collected date/time: 12/22/21 15:58

SAMPLE RESULTS - 09

L1445869

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	3.06		0.440	0.353	01/17/2022 14:30	WG1792917
(T) Barium	101			62.0-143	01/17/2022 14:30	WG1792917
(T) Yttrium	106			79.0-136	01/17/2022 14:30	WG1792917

¹ Cp

² Tc

³ Ss

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	3.16		0.601	0.595	01/17/2022 14:30	WG1797372

⁴ Cn

⁵ Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.108	J	0.161	0.242	01/05/2022 14:05	WG1797372
(T) Barium-133	98.5			30.0-143	01/05/2022 14:05	WG1797372

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

21110629-010

Collected date/time: 12/22/21 11:44

SAMPLE RESULTS - 10

L1445869

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.465		0.374	0.332	01/17/2022 14:30	WG1792917
(T) Barium	101			62.0-143	01/17/2022 14:30	WG1792917
(T) Yttrium	101			79.0-136	01/17/2022 14:30	WG1792917

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.482	J	0.484	0.586	01/17/2022 14:30	WG1797372

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0177	U	0.110	0.254	01/05/2022 14:05	WG1797372
(T) Barium-133	101			30.0-143	01/05/2022 14:05	WG1797372

6 Qc

7 Gl

8 Al

9 Sc

21110629-011

Collected date/time: 12/22/21 10:14

SAMPLE RESULTS - 11

L1445869

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.13		0.369	0.316	01/17/2022 14:30	WG1792917
(T) Barium	110			62.0-143	01/17/2022 14:30	WG1792917
(T) Yttrium	101			79.0-136	01/17/2022 14:30	WG1792917

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.13		0.497	0.618	01/17/2022 14:30	WG1797372

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0207	<u>U</u>	0.128	0.302	01/05/2022 14:05	WG1797372
(T) Barium-133	98.3			30.0-143	01/05/2022 14:05	WG1797372

6 Qc

7 Gl

8 Al

9 Sc

WG1792917

Radiochemistry by Method 904/9320

QUALITY CONTROL SUMMARY

L1445869-01.02.03.04.05.06.07.08.09.10.11

Method Blank (MB)

(MB) R3750966-5 01/17/22 14:30

Analyte	MB Result pCi/l	MB Qualifier + / -	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.340	0.276	0.245	0.245
(f) Barium	106	106		
(f) Yttrium	107	107		

L1445869-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1445869-03 01/04/22 13:30 • (DUP) R3750966-4 01/04/22 13:30

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.145	0.282	0.529	-0.170	0.679	0.529	1	200	0.429	<u>U</u>	20	3
(f) Barium	101			100	100							
(f) Yttrium	96.0			97.4	97.4							

Laboratory Control Sample (LCS)

(LCS) R3750966-1 01/04/22 13:30

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.22	104	80.0-120	
(f) Barium			103		
(f) Yttrium			101		

L1445869-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1445869-02 01/04/22 13:30 • (MS) R3750966-2 01/04/22 13:30 • (MSD) R3750966-3 01/04/22 13:30

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.255	20.5	19.6	121	116	1	70.0-130			4.74		20
(f) Barium		103			111	99.6							
(f) Yttrium		103			95.5	99.4							

ACCOUNT:
TEKLAB, Inc.

PROJECT:
21110629

SDG:
L1445869

DATE/TIME:
01/18/22 14:54

PAGE:
17 of 21



WG1797372

Radiochemistry by Method SM7500Ra B M

QUALITY CONTROL SUMMARY

L1445869-01.02.03.04.05.06.07.08.09.10.11

Method Blank (MB)

(MB) R3748491-1 01/04/22 15:02

Analyte	MB Result pCi/l	MB Uncertainty +/-	MB MDA pCi/l
Radium-226 (T) Barium-133	0.000567 95.8	0.0442 95.8	0.0899

L1446861-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1446861-01 01/05/22 14:05 • (DUP) R3748491-5 01/04/22 15:02

Analyte	Original Result pCi/l	Original Uncertainty +/-	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty +/-	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226 (T) Barium-133	-0.0540 95.5	0.0967	0.309	0.297 96.4	0.237 96.4	0.309	1	200	1.37		20	3

Laboratory Control Sample (LCS)

(LCS) R3748491-2 01/04/22 15:02

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226 (T) Barium-133	5.02	5.12	102	80.0-120	93.5

L1445869-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1445869-01 01/04/22 15:02 • (MS) R3748491-3 01/04/22 15:02 • (MSD) R3748491-4 01/04/22 15:02

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MS RER	RPD Limits %
Radium-226 (T) Barium-133	20.1	0.104 97.9	17.9	17.9	88.7	88.3	1	75.0-125			20
					96.5	98.8					0.447

ACCOUNT:
TEKLAB, Inc.

PROJECT:
2110629

SDG:
L1445869

DATE/TIME:
01/18/22 14:54

PAGE:
18 of 21



GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

GI

⁸ AI

⁹ Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

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 Field Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Project# 21110629

Contact: Elizabeth Hurley
10-15 day TAT

Requested Due Date

Sampler: Joseph Riley/Adam Bridges
Cooler Temp: QC Level: 3

Comments: Please issue reports and invoices via email only
Please analyze for Radium 226/228 per methods specified for Vistra/Ramboll projects.

IL site

Batch QC is required for all analyses requested.

Any changes to analysis/methods must be approved by Teklab, Inc.

Phone: (618) 344-1004

EHurley@TekLabInc.com
32279

Billing PO:

1446867

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
-01	21110629-001	12/21/21 1135	HNO3	Groundwater
-02	21110629-002	12/21/21 1536	HNO3	Groundwater
-03	21110629-003	12/22/21 1014	HNO3	Groundwater
-04	21110629-004	12/22/21 1140	HNO3	Groundwater
-05	21110629-005	12/22/21 1553	HNO3	Groundwater
-06	21110629-006	12/21/21 1259	HNO3	Groundwater
-07	21110629-007	12/22/21 0910	HNO3	Groundwater
-08	21110629-008	12/22/21 1330	HNO3	Groundwater
-09	21110629-009	12/22/21 1558	HNO3	Groundwater
-10	21110629-010	12/22/21 1144	HNO3	Groundwater
-11	21110629-011	12/22/21 1014	HNO3	Groundwater

Ra226/228

Relinquished By: Date/Time: 12/23/21 16:00

Received By: Date/Time: 12/27/21 10:50

5300 5701 9290
5300 5701 1070
5300 5701 9290

Subcontractor

uch does not provide client/sampler information without proper authorization, and proprietary rights reserved by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c) 9/20/18