Southern Illinois Power Cooperative

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

May 6, 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 MARCH 2022

Dear Program Reviewer:

Consistent with the requirements of 35 Illinois Administrative Code Part 845.610(b)(3)(D), please find enclosed the groundwater monitoring data collected in March 2022 relative to the former Emery Pond. This is the fourth round of data collected since closure by removal of the former Emery Pond was completed on April 5, 2021. Southern Illinois Power Cooperative (SIPC) determined detections above background, detections above the groundwater protection standards (GPS), and statistically significant decreases (SSDs) using the statistical methods described in the Groundwater Monitoring Plan Addendum #1 prepared by Golder Associates Inc. and dated October 2021.

The following constituents were detected at statistically significant levels above background:

- Arsenic
- Boron
- Cadmium
- Calcium
- Chloride
- Cobalt
- Sulfate
- Total Dissolved Solids

The following constituents were detected at statistically significant levels above the applicable GPS:

Touchstone Energy®
The power of human connections

- Boron
- Calcium
- Chloride
- Cobalt
- Sulfate
- Total Dissolved Solids

The following SSDs were identified at monitoring well EP-4:

- Arsenic
- pH (increase relative to the lower limit)
- Thallium

Closure by removal of the former Emery Pond served as part of the approved groundwater correction action. SIPC will continue to monitor groundwater and report the results on a quarterly basis until concentrations are below the GPS for a period of three consecutive years.

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

Wendell Watson
Director of Environmental Services
Southern Illinois Power Cooperative

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

March 28, 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:** 22021140

Dear Jason McLaurin:

TEKLAB, INC received 11 samples on 3/9/2022 8:00:00 AM for the analysis presented in the following report.

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

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

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

Sincerely,

Elizabeth A. Hurley

Elizabeth A. Hurley
Project Manager
(618)344-1004 ex 33
ehurley@teklabinc.com

Report Contents

Client: Southern Illinois Power Cooperation
Client Project: Groundwater Monitoring

Work Order: 22021140
Report Date: 28-Mar-22

This reporting package includes the following:

Client: Southern Illinois Power Cooperation **Work Order:** 22021140

Client Project: Groundwater Monitoring **Report Date:** 28-Mar-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)

Client: Southern Illinois Power Cooperation
Work Order: 22021140

Client Project: Groundwater Monitoring
Report Date: 28-Mar-22

Qualifiers

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

Teklab, Inc.
Environmental Laboratory

Case Narrative

http://www.teklabinc.com/

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22

Cooler Receipt Temp: 4.0 °C

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

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for

Locations

Collinsville

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

Collinsville Air

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

Springfield

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

Chicago

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

Kansas City

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

Client: Southern Illinois Power Cooperation **Work Order:** 22021140

Client Project: Groundwater Monitoring **Report Date:** 28-Mar-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	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		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-001
Client Sample ID: EBG
Matrix: GROUNDWATER
Collection Date: 03/07/2022 11:42

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		8.02	ft	1	03/07/2022 11:42	R308346
Elevation of groundwater surface	*	0	0		516.85	ft	1	03/07/2022 11:42	R308346
Measuring Point Elevation	*	0	0		524.87	ft	1	03/07/2022 11:42	R308346
FIELD PURGE VOLUME									
Purge Volume	*	0	0		5.20	gal	1	03/07/2022 11:42	R308346
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		16	NTU	1	03/07/2022 11:42	R308346
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		113	mV	1	03/07/2022 11:42	R308346
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		0.663	mS/cm	1	03/07/2022 11:42	R308346
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		12.7	°C	1	03/07/2022 11:42	R308346
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		5.81	mg/L	1	03/07/2022 11:42	R308346
SW-846 9040B FIELD									
pH	*	0	1.00		6.78		1	03/07/2022 11:42	R308346
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		428	mg/L	1	03/11/2022 13:51	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	1	4		15	mg/L	1	03/09/2022 19:54	R308033
SW-846 9036 (TOTAL)									
Sulfate	NELAP	12	20		83	mg/L	2	03/09/2022 20:12	R308032
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.58	mg/L	1	03/09/2022 14:48	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0540	mg/L	1	03/10/2022 21:13	188407
Boron	NELAP	0.0090	0.0200		0.0225	mg/L	1	03/10/2022 21:13	188407
Calcium	NELAP	0.0350	0.100		11.9	mg/L	1	03/10/2022 21:13	188407
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/15/2022 1:24	188407
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/15/2022 1:24	188407
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/15/2022 1:24	188407
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/15/2022 1:24	188407
Chromium	NELAP	0.0007	0.0015	J	0.0009	mg/L	5	03/15/2022 1:24	188407
Cobalt	NELAP	0.0001	0.0010	J	0.0005	mg/L	5	03/15/2022 1:24	188407
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/15/2022 1:24	188407
Lithium	*	0.0015	0.0030		0.0162	mg/L	5	03/15/2022 1:24	188407
Molybdenum	NELAP	0.0006	0.0015	J	0.0014	mg/L	5	03/15/2022 1:24	188407
Selenium	NELAP	0.0006	0.0010	J	0.0007	mg/L	5	03/15/2022 1:24	188407
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/15/2022 1:24	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00008	0.00020		< 0.00020	mg/L	1	03/10/2022 19:43	188417
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-001
Client Sample ID: EBG
Matrix: GROUNDWATER
Collection Date: 03/07/2022 11:42

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-228	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Teklab, Inc.
Environmental Laboratory

Laboratory Results

http://www.teklabinc.com/

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-002
Client Sample ID: EP-1
Matrix: GROUNDWATER
Collection Date: 03/07/2022 14:11

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		**4.37**	ft	1	03/07/2022 14:11	R308346
Elevation of groundwater surface	*	0	0		**515.35**	ft	1	03/07/2022 14:11	R308346
Measuring Point Elevation	*	0	0		**519.72**	ft	1	03/07/2022 14:11	R308346
FIELD PURGE VOLUME									
Purge Volume	*	0	0		**1.82**	gal	1	03/07/2022 14:11	R308346
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		**5.0**	NTU	1	03/07/2022 14:11	R308346
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		**146**	mV	1	03/07/2022 14:11	R308346
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		**3.58**	mS/cm	1	03/07/2022 14:11	R308346
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		**9.6**	°C	1	03/07/2022 14:11	R308346
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		**1.86**	mg/L	1	03/07/2022 14:11	R308346
SW-846 9040B FIELD									
pH	*	0	1.00		**6.19**		1	03/07/2022 14:11	R308346
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		**2650**	mg/L	1	03/11/2022 13:51	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	1	8		**44**	mg/L	2	03/09/2022 20:15	R308033
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1600**	mg/L	50	03/11/2022 15:16	R308169
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.19**	mg/L	1	03/09/2022 14:50	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		**0.0171**	mg/L	1	03/10/2022 21:17	188407
Boron	NELAP	0.0090	0.0200		**0.914**	mg/L	1	03/10/2022 21:17	188407
Calcium	NELAP	0.0350	0.100		**474**	mg/L	1	03/10/2022 21:17	188407
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:29	188407
Arsenic	NELAP	0.0004	0.0010	J	**0.0004**	mg/L	5	03/15/2022 1:29	188407
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:29	188407
Cadmium	NELAP	0.0002	0.0010	J	**0.0002**	mg/L	5	03/15/2022 1:29	188407
Chromium	NELAP	0.0007	0.0015		**< 0.0015**	mg/L	5	03/15/2022 1:29	188407
Cobalt	NELAP	0.0001	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:29	188407
Lead	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:29	188407
Lithium	*	0.0015	0.0030		**0.0120**	mg/L	5	03/15/2022 1:29	188407
Molybdenum	NELAP	0.0006	0.0015		**< 0.0015**	mg/L	5	03/15/2022 1:29	188407
Selenium	NELAP	0.0006	0.0010		**0.0017**	mg/L	5	03/15/2022 1:29	188407
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	03/15/2022 1:29	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00008	0.00020		**< 0.00020**	mg/L	1	03/10/2022 19:45	188417
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-002
Client Sample ID: EP-1
Matrix: GROUNDWATER
Collection Date: 03/07/2022 14:11

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-228	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-003
Client Sample ID: EP-2
Matrix: GROUNDWATER
Collection Date: 03/07/2022 15:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		**3.91**	ft	1	03/07/2022 15:25	R308346
Elevation of groundwater surface	*	0	0		**509.88**	ft	1	03/07/2022 15:25	R308346
Measuring Point Elevation	*	0	0		**512.79**	ft	1	03/07/2022 15:25	R308346
FIELD PURGE VOLUME									
Purge Volume	*	0	0		**1.82**	gal	1	03/07/2022 15:25	R308346
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		**4.9**	NTU	1	03/07/2022 15:25	R308346
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		**124**	mV	1	03/07/2022 15:25	R308346
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		**3.32**	mS/cm	1	03/07/2022 15:25	R308346
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		**11.5**	°C	1	03/07/2022 15:25	R308346
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		**1.03**	mg/L	1	03/07/2022 15:25	R308346
SW-846 9040B FIELD									
pH	*	0	1.00		**5.86**		1	03/07/2022 15:25	R308346
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		**2480**	mg/L	1	03/11/2022 13:52	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	1	4		**30**	mg/L	1	03/09/2022 20:23	R308033
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		**1630**	mg/L	50	03/09/2022 20:29	R308032
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.69**	mg/L	1	03/09/2022 15:02	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		**0.0151**	mg/L	1	03/10/2022 21:20	188407
Boron	NELAP	0.0090	0.0200		**0.508**	mg/L	1	03/10/2022 21:20	188407
Calcium	NELAP	0.0350	0.100		**406**	mg/L	1	03/10/2022 21:20	188407
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:35	188407
Arsenic	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:35	188407
Beryllium	NELAP	0.0002	0.0010		**0.0019**	mg/L	5	03/15/2022 1:35	188407
Cadmium	NELAP	0.0002	0.0010		**0.0014**	mg/L	5	03/15/2022 1:35	188407
Chromium	NELAP	0.0007	0.0015		**< 0.0015**	mg/L	5	03/15/2022 1:35	188407
Cobalt	NELAP	0.0001	0.0010		**0.0159**	mg/L	5	03/15/2022 1:35	188407
Lead	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:35	188407
Lithium	*	0.0015	0.0030		**0.0196**	mg/L	5	03/15/2022 1:35	188407
Molybdenum	NELAP	0.0006	0.0015		**< 0.0015**	mg/L	5	03/15/2022 1:35	188407
Selenium	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:35	188407
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	03/15/2022 1:35	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00008	0.00020		**< 0.00020**	mg/L	1	03/10/2022 19:48	188417
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-003
Client Sample ID: EP-2
Matrix: GROUNDWATER
Collection Date: 03/07/2022 15:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-228	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-004
Client Sample ID: EP-3
Matrix: GROUNDWATER
Collection Date: 03/08/2022 13:08

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		**16.18**	ft	1	03/08/2022 13:08	R308346
Elevation of groundwater surface	*	0	0		**502.77**	ft	1	03/08/2022 13:08	R308346
Measuring Point Elevation	*	0	0		**518.95**	ft	1	03/08/2022 13:08	R308346
FIELD PURGE VOLUME									
Purge Volume	*	0	0		**4.68**	gal	1	03/08/2022 13:08	R308346
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		**4.9**	NTU	1	03/08/2022 13:08	R308346
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		**-71**	mV	1	03/08/2022 13:08	R308346
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		**1.52**	mS/cm	1	03/08/2022 13:08	R308346
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		**16.8**	°C	1	03/08/2022 13:08	R308346
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		**0.23**	mg/L	1	03/08/2022 13:08	R308346
SW-846 9040B FIELD									
pH	*	0	1.00		**6.17**		1	03/08/2022 13:08	R308346
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		**762**	mg/L	1	03/11/2022 13:53	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	2	20		**145**	mg/L	5	03/09/2022 20:31	R308033
SW-846 9036 (TOTAL)									
Sulfate	NELAP	31	50		**153**	mg/L	5	03/09/2022 20:31	R308032
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.20**	mg/L	1	03/09/2022 15:04	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		**0.0851**	mg/L	1	03/10/2022 21:24	188407
Boron	NELAP	0.0090	0.0200		**0.0702**	mg/L	1	03/10/2022 21:24	188407
Calcium	NELAP	0.0350	0.100		**36.3**	mg/L	1	03/10/2022 21:24	188407
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:41	188407
Arsenic	NELAP	0.0004	0.0010		**0.0068**	mg/L	5	03/15/2022 1:41	188407
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:41	188407
Cadmium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:41	188407
Chromium	NELAP	0.0007	0.0015	J	**0.0015**	mg/L	5	03/15/2022 1:41	188407
Cobalt	NELAP	0.0001	0.0010		**0.0947**	mg/L	5	03/15/2022 1:41	188407
Lead	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:41	188407
Lithium	*	0.0015	0.0030		**0.0267**	mg/L	5	03/15/2022 1:41	188407
Molybdenum	NELAP	0.0006	0.0015		**< 0.0015**	mg/L	5	03/15/2022 1:41	188407
Selenium	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:41	188407
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	03/15/2022 1:41	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00008	0.00020		**< 0.00020**	mg/L	1	03/10/2022 19:50	188417
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-004
Client Sample ID: EP-3
Matrix: GROUNDWATER
Collection Date: 03/08/2022 13:08

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-228	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation | **Work Order:** 22021140

Client Project: Groundwater Monitoring | **Report Date:** 28-Mar-22

Lab ID: 22021140-005 | **Client Sample ID:** EP-4

Matrix: GROUNDWATER | **Collection Date:** 03/08/2022 14:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		**7.99**	ft	1	03/08/2022 14:35	R308346
Elevation of groundwater surface	*	0	0		**511.75**	ft	1	03/08/2022 14:35	R308346
Measuring Point Elevation	*	0	0		**519.74**	ft	1	03/08/2022 14:35	R308346
FIELD PURGE VOLUME									
Purge Volume	*	0	0		**2.60**	gal	1	03/08/2022 14:35	R308346
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		**5.0**	NTU	1	03/08/2022 14:35	R308346
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		**-44**	mV	1	03/08/2022 14:35	R308346
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		**3.19**	mS/cm	1	03/08/2022 14:35	R308346
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		**14.2**	°C	1	03/08/2022 14:35	R308346
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		**0.14**	mg/L	1	03/08/2022 14:35	R308346
SW-846 9040B FIELD									
pH	*	0	1.00		**5.94**		1	03/08/2022 14:35	R308346
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		**1740**	mg/L	1	03/11/2022 13:53	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	10	20		**456**	mg/L	20	03/11/2022 17:43	R308170
SW-846 9036 (TOTAL)									
Sulfate	NELAP	123	200		**623**	mg/L	20	03/11/2022 17:43	R308169
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.12**	mg/L	1	03/09/2022 15:12	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		**0.0313**	mg/L	1	03/10/2022 21:46	188407
Boron	NELAP	0.0090	0.0200	S	**11.1**	mg/L	1	03/10/2022 21:46	188407
Calcium	NELAP	0.0350	0.100	S	**171**	mg/L	1	03/10/2022 21:46	188407
Matrix spike control limits for B and Ca are not applicable due to high sample/spike ratio.									
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/16/2022 19:17	188407
Arsenic	NELAP	0.0004	0.0010		**0.0053**	mg/L	5	03/16/2022 19:17	188407
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:47	188407
Cadmium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 19:29	188407
Chromium	NELAP	0.0007	0.0015		**0.0020**	mg/L	5	03/15/2022 1:47	188407
Cobalt	NELAP	0.0001	0.0010		**0.200**	mg/L	5	03/15/2022 1:47	188407
Lead	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 1:47	188407
Lithium	*	0.0015	0.0030	J	**0.0025**	mg/L	5	03/15/2022 1:47	188407
Molybdenum	NELAP	0.0006	0.0015		**< 0.0015**	mg/L	5	03/16/2022 19:17	188407
Selenium	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/16/2022 19:17	188407
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	03/15/2022 1:47	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00008	0.00020		**< 0.00020**	mg/L	1	03/10/2022 19:52	188417

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-005
Client Sample ID: EP-4
Matrix: GROUNDWATER
Collection Date: 03/08/2022 14:35

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	03/16/2022 0:00	R308837
Radium-228	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation | **Work Order:** 22021140

Client Project: Groundwater Monitoring | **Report Date:** 28-Mar-22

Lab ID: 22021140-006 | **Client Sample ID:** EP-5

Matrix: GROUNDWATER | **Collection Date:** 03/07/2022 12:49

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		**11.14**	ft	1	03/07/2022 12:49	R308346
Elevation of groundwater surface	*	0	0		**516.45**	ft	1	03/07/2022 12:49	R308346
Measuring Point Elevation	*	0	0		**527.59**	ft	1	03/07/2022 12:49	R308346
FIELD PURGE VOLUME									
Purge Volume	*	0	0		**0.91**	gal	1	03/07/2022 12:49	R308346
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		**0.6**	NTU	1	03/07/2022 12:49	R308346
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		**136**	mV	1	03/07/2022 12:49	R308346
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		**0.619**	mS/cm	1	03/07/2022 12:49	R308346
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		**11.3**	°C	1	03/07/2022 12:49	R308346
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		**5.50**	mg/L	1	03/07/2022 12:49	R308346
SW-846 9040B FIELD									
pH	*	0	1.00		**6.73**		1	03/07/2022 12:49	R308346
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		**326**	mg/L	1	03/11/2022 13:54	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	1	1		**3**	mg/L	1	03/15/2022 13:44	R308309
SW-846 9036 (TOTAL)									
Sulfate	NELAP	31	50		**141**	mg/L	5	03/11/2022 17:46	R308169
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.40**	mg/L	1	03/09/2022 15:10	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		**0.0513**	mg/L	1	03/10/2022 21:28	188407
Boron	NELAP	0.0090	0.0200		**0.0380**	mg/L	1	03/10/2022 21:28	188407
Calcium	NELAP	0.0350	0.100		**22.5**	mg/L	1	03/10/2022 21:28	188407
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:05	188407
Arsenic	NELAP	0.0004	0.0010	J	**0.0004**	mg/L	5	03/15/2022 2:05	188407
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:05	188407
Cadmium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:05	188407
Chromium	NELAP	0.0007	0.0015	J	**0.0008**	mg/L	5	03/15/2022 2:05	188407
Cobalt	NELAP	0.0001	0.0010	J	**0.0005**	mg/L	5	03/15/2022 2:05	188407
Lead	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:05	188407
Lithium	*	0.0015	0.0030	J	**0.0027**	mg/L	5	03/15/2022 2:05	188407
Molybdenum	NELAP	0.0006	0.0015		**0.0030**	mg/L	5	03/15/2022 2:05	188407
Selenium	NELAP	0.0006	0.0010		**0.0017**	mg/L	5	03/15/2022 2:05	188407
Thallium	NELAP	0.0010	0.0020		**0.0031**	mg/L	5	03/15/2022 2:05	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00008	0.00020		**< 0.00020**	mg/L	1	03/10/2022 19:59	188417
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-006
Client Sample ID: EP-5
Matrix: GROUNDWATER
Collection Date: 03/07/2022 12:49

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-228	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-007
Client Sample ID: EP-6
Matrix: GROUNDWATER
Collection Date: 03/08/2022 8:36

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		**2.61**	ft	1	03/08/2022 8:36	R308346
Elevation of groundwater surface	*	0	0		**502.50**	ft	1	03/08/2022 8:36	R308346
Measuring Point Elevation	*	0	0		**505.11**	ft	1	03/08/2022 8:36	R308346
FIELD PURGE VOLUME									
Purge Volume	*	0	0		**1.69**	gal	1	03/08/2022 8:36	R308346
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		**4.0**	NTU	1	03/08/2022 8:36	R308346
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		**227**	mV	1	03/08/2022 8:36	R308346
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		**0.359**	mS/cm	1	03/08/2022 8:36	R308346
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		**9.6**	°C	1	03/08/2022 8:36	R308346
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		**2.22**	mg/L	1	03/08/2022 8:36	R308346
SW-846 9040B FIELD									
pH	*	0	1.00		**5.10**		1	03/08/2022 8:36	R308346
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		**254**	mg/L	1	03/11/2022 13:54	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	1	4		**23**	mg/L	1	03/09/2022 21:06	R308033
SW-846 9036 (TOTAL)									
Sulfate	NELAP	12	20		**67**	mg/L	2	03/09/2022 21:11	R308032
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10	J	**0.06**	mg/L	1	03/09/2022 15:23	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		**0.0345**	mg/L	1	03/10/2022 21:57	188407
Boron	NELAP	0.0090	0.0200		**< 0.0200**	mg/L	1	03/14/2022 11:39	188407
Calcium	NELAP	0.0350	0.100		**1.92**	mg/L	1	03/10/2022 21:57	188407
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:11	188407
Arsenic	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:11	188407
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:11	188407
Cadmium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:11	188407
Chromium	NELAP	0.0007	0.0015	J	**0.0013**	mg/L	5	03/15/2022 2:11	188407
Cobalt	NELAP	0.0001	0.0010		**0.0017**	mg/L	5	03/15/2022 2:11	188407
Lead	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:11	188407
Lithium	*	0.0015	0.0030		**0.0113**	mg/L	5	03/15/2022 2:11	188407
Molybdenum	NELAP	0.0006	0.0015		**< 0.0015**	mg/L	5	03/15/2022 2:11	188407
Selenium	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:11	188407
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	03/15/2022 2:11	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00008	0.00020		**< 0.00020**	mg/L	1	03/10/2022 20:01	188417
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-007
Client Sample ID: EP-6
Matrix: GROUNDWATER
Collection Date: 03/08/2022 8:36

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-228	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation **Work Order:** 22021140

Client Project: Groundwater Monitoring **Report Date:** 28-Mar-22

Lab ID: 22021140-008 **Client Sample ID:** EP-7

Matrix: GROUNDWATER **Collection Date:** 03/08/2022 11:03

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		**13.09**	ft	1	03/08/2022 11:03	R308346
Elevation of groundwater surface	*	0	0		**502.35**	ft	1	03/08/2022 11:03	R308346
Measuring Point Elevation	*	0	0		**515.44**	ft	1	03/08/2022 11:03	R308346
FIELD PURGE VOLUME									
Purge Volume	*	0	0		**5.20**	gal	1	03/08/2022 11:03	R308346
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		**14**	NTU	1	03/08/2022 11:03	R308346
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		**-35**	mV	1	03/08/2022 11:03	R308346
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		**2.42**	mS/cm	1	03/08/2022 11:03	R308346
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		**15.1**	°C	1	03/08/2022 11:03	R308346
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		**0.16**	mg/L	1	03/08/2022 11:03	R308346
SW-846 9040B FIELD									
pH	*	0	1.00		**5.97**		1	03/08/2022 11:03	R308346
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		**1450**	mg/L	1	03/11/2022 13:55	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	2	20		**239**	mg/L	5	03/09/2022 21:14	R308033
SW-846 9036 (TOTAL)									
Sulfate	NELAP	123	200		**556**	mg/L	20	03/09/2022 21:19	R308032
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**0.30**	mg/L	1	03/09/2022 15:06	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		**0.0271**	mg/L	1	03/10/2022 22:01	188407
Boron	NELAP	0.0090	0.0200		**0.910**	mg/L	1	03/10/2022 22:01	188407
Calcium	NELAP	0.0350	0.100		**170**	mg/L	1	03/10/2022 22:01	188407
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:17	188407
Arsenic	NELAP	0.0004	0.0010		**0.0173**	mg/L	5	03/15/2022 2:17	188407
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:17	188407
Cadmium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:17	188407
Chromium	NELAP	0.0007	0.0015		**< 0.0015**	mg/L	5	03/15/2022 2:17	188407
Cobalt	NELAP	0.0001	0.0010		**0.139**	mg/L	5	03/15/2022 2:17	188407
Lead	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:17	188407
Lithium	*	0.0015	0.0030		**< 0.0030**	mg/L	5	03/15/2022 2:17	188407
Molybdenum	NELAP	0.0006	0.0015	J	**0.0012**	mg/L	5	03/15/2022 2:17	188407
Selenium	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:17	188407
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	03/15/2022 2:17	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00008	0.00020		**< 0.00020**	mg/L	1	03/10/2022 20:04	188417
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-008
Client Sample ID: EP-7
Matrix: GROUNDWATER
Collection Date: 03/08/2022 11:03

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-228	*	0	0		**See Attached**	pci/L	1	03/16/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-009
Client Sample ID: Equipment Blank
Matrix: AQUEOUS
Collection Date: 03/08/2022 14:38

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		**< 20**	mg/L	1	03/11/2022 13:55	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	1	4		**< 4**	mg/L	1	03/09/2022 21:25	R308033
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		**< 10**	mg/L	1	03/09/2022 21:25	R308032
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**< 0.10**	mg/L	1	03/09/2022 15:08	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		**< 0.0025**	mg/L	1	03/10/2022 22:05	188407
Boron	NELAP	0.0090	0.0200		**0.0302**	mg/L	1	03/10/2022 22:05	188407
Calcium	NELAP	0.035	0.10	J	**0.064**	mg/L	1	03/10/2022 22:05	188407
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:59	188407
Arsenic	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:59	188407
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:59	188407
Cadmium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:59	188407
Chromium	NELAP	0.0007	0.0015		**< 0.0015**	mg/L	5	03/15/2022 2:59	188407
Cobalt	NELAP	0.0001	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:59	188407
Lead	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:59	188407
Lithium	*	0.0015	0.0030		**< 0.0030**	mg/L	5	03/15/2022 2:59	188407
Molybdenum	NELAP	0.0006	0.0015		**< 0.0015**	mg/L	5	03/15/2022 2:59	188407
Selenium	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 2:59	188407
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	03/18/2022 18:42	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00008	0.00020		**< 0.00020**	mg/L	1	03/10/2022 20:06	188417
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	03/17/2022 0:00	R308837
Radium-228	*	0	0		**See Attached**	pci/L	1	03/17/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-010
Client Sample ID: Field Blank
Matrix: AQUEOUS
Collection Date: 03/07/2022 15:28

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		**< 20**	mg/L	1	03/11/2022 13:56	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	1	4		**< 4**	mg/L	1	03/09/2022 21:27	R308033
SW-846 9036 (TOTAL)									
Sulfate	NELAP	6	10		**< 10**	mg/L	1	03/09/2022 21:27	R308032
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		**< 0.10**	mg/L	1	03/09/2022 15:16	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		**< 0.0025**	mg/L	1	03/10/2022 22:08	188407
Boron	NELAP	0.0090	0.020	J	**0.019**	mg/L	1	03/10/2022 22:08	188407
Calcium	NELAP	0.0350	0.100		**< 0.100**	mg/L	1	03/10/2022 22:08	188407
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 3:05	188407
Arsenic	NELAP	0.0004	0.0010		**< 0.0010**	mg/L	5	03/15/2022 3:05	188407
Beryllium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 3:05	188407
Cadmium	NELAP	0.0002	0.0010		**< 0.0010**	mg/L	5	03/15/2022 3:05	188407
Chromium	NELAP	0.0007	0.0015		**< 0.0015**	mg/L	5	03/15/2022 3:05	188407
Cobalt	NELAP	0.0001	0.0010		**< 0.0010**	mg/L	5	03/15/2022 3:05	188407
Lead	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 3:05	188407
Lithium	*	0.0015	0.0030		**< 0.0030**	mg/L	5	03/15/2022 3:05	188407
Molybdenum	NELAP	0.0006	0.0015		**< 0.0015**	mg/L	5	03/15/2022 3:05	188407
Selenium	NELAP	0.0006	0.0010		**< 0.0010**	mg/L	5	03/15/2022 3:05	188407
Thallium	NELAP	0.0010	0.0020		**< 0.0020**	mg/L	5	03/15/2022 3:05	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00008	0.00020		**< 0.00020**	mg/L	1	03/10/2022 20:08	188417
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		**See Attached**	pci/L	1	03/17/2022 0:00	R308837
Radium-228	*	0	0		**See Attached**	pci/L	1	03/17/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-011
Client Sample ID: Field Duplicate
Matrix: GROUNDWATER
Collection Date: 03/07/2022 15:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS									
Depth to water from measuring point	*	0	0		3.91	ft	1	03/07/2022 15:25	R308346
Elevation of groundwater surface	*	0	0		509.88	ft	1	03/07/2022 15:25	R308346
Measuring Point Elevation	*	0	0		513.79	ft	1	03/07/2022 15:25	R308346
FIELD PURGE VOLUME									
Purge Volume	*	0	0		1.82	gal	1	03/07/2022 15:25	R308346
STANDARD METHODS 2130 B FIELD									
Turbidity	*	1.0	1.0		4.9	NTU	1	03/07/2022 15:25	R308346
STANDARD METHODS 18TH ED. 2580 B FIELD									
Oxidation-Reduction Potential	*	-300	-300		124	mV	1	03/07/2022 15:25	R308346
STANDARD METHODS 2510 B FIELD									
Spec. Conductance, Field	*	0	0		3.32	uS/cm	1	03/07/2022 15:25	R308346
STANDARD METHODS 2550 B FIELD									
Temperature	*	0	0		11.5	°C	1	03/07/2022 15:25	R308346
STANDARD METHODS 4500-O G FIELD									
Oxygen, Dissolved	*	0	0		1.03	mg/L	1	03/07/2022 15:25	R308346
SW-846 9040B FIELD									
pH	*	0	1.00		5.86		1	03/07/2022 15:25	R308346
STANDARD METHODS 2540 C (TOTAL) 1997, 2011									
Total Dissolved Solids	*	16	20		2490	mg/L	1	03/11/2022 13:56	R308313
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011									
Chloride	NELAP	1	4		30	mg/L	1	03/09/2022 21:30	R308033
SW-846 9036 (TOTAL)									
Sulfate	NELAP	307	500		1720	mg/L	50	03/09/2022 21:35	R308032
SW-846 9214 (TOTAL)									
Fluoride	NELAP	0.04	0.10		0.68	mg/L	1	03/09/2022 15:25	R308014
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)									
Barium	NELAP	0.0007	0.0025		0.0145	mg/L	1	03/10/2022 22:12	188407
Boron	NELAP	0.0090	0.0200		0.519	mg/L	1	03/10/2022 22:12	188407
Calcium	NELAP	0.0350	0.100		408	mg/L	1	03/10/2022 22:12	188407
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/15/2022 3:11	188407
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/15/2022 3:11	188407
Beryllium	NELAP	0.0002	0.0010		0.0025	mg/L	5	03/16/2022 19:35	188407
Cadmium	NELAP	0.0002	0.0010		0.0014	mg/L	5	03/15/2022 3:11	188407
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	03/15/2022 3:11	188407
Cobalt	NELAP	0.0001	0.0010		0.0179	mg/L	5	03/15/2022 3:11	188407
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/15/2022 3:11	188407
Lithium	*	0.0015	0.0030		0.0198	mg/L	5	03/15/2022 3:11	188407
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	03/15/2022 3:11	188407
Selenium	NELAP	0.0006	0.0010	J	0.0006	mg/L	5	03/15/2022 3:11	188407
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/15/2022 3:11	188407
SW-846 7470A (TOTAL)									
Mercury	NELAP	0.00007	0.00020		< 0.00020	mg/L	1	03/12/2022 12:34	188481
EPA 903.0/904.0, RADIUM 226/228									
Radium-226	*	0	0		See Attached	pci/L	1	03/17/2022 0:00	R308837

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22
Lab ID: 22021140-011
Client Sample ID: Field Duplicate
Matrix: GROUNDWATER
Collection Date: 03/07/2022 15:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228									
Radium-228	*	0	0		**See Attached**	pci/L	1	03/17/2022 0:00	R308837

Client: Southern Illinois Power Cooperation **Work Order:** 22021140

Client Project: Groundwater Monitoring **Report Date:** 28-Mar-22

STANDARD METHODS 2510 B FIELD

Batch R308346 **SampType:** LCS Units **mS/cm**

SampID: LCS-R308346

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Spec. Conductance, Field	*	0		**1.42**	1.409	0	100.8	90	110	03/08/2022
Spec. Conductance, Field	*	0		**1.43**	1.409	0	101.5	90	110	03/07/2022

SW-846 9040B FIELD

Batch R308346 **SampType:** LCS Units

SampID: LCS-R308346

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
pH	*	1.00		**7.06**	7.000	0	100.9	98.57	101.4	03/07/2022
pH	*	1.00		**6.99**	7.000	0	99.9	98.57	101.4	03/08/2022

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R308313 **SampType:** MBLK Units **mg/L**

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	03/11/2022

Batch R308313 **SampType:** LCS Units **mg/L**

SampID: LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Dissolved Solids	*	20		**952**	1000	0	95.2	90	110	03/11/2022

Batch R308313 **SampType:** DUP Units **mg/L** RPD Limit: **5**

SampID: 22030698-001ADUP

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids	*	20		**704**				714.0	1.41	03/11/2022

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

Batch R308033 **SampType:** MBLK Units **mg/L**

SampID: ICB/MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		**< 4**	0.5000	0	0	-100	100	03/09/2022

Batch R308033 **SampType:** LCS Units **mg/L**

SampID: ICV/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		**20**	20.00	0	102.5	90	110	03/09/2022

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22

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

Batch R308033 **SampType:** MS Units mg/L
SampID: 22021140-004AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		20		**231**	100.0	145.4	86.1	85	115	03/09/2022

Batch R308033 **SampType:** MSD Units mg/L RPD Limit: 15
SampID: 22021140-004AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		20		**234**	100.0	145.4	88.8	231.4	1.15	03/09/2022

Batch R308033 **SampType:** MS Units mg/L
SampID: 22030433-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		**32**	20.00	12.58	96.8	85	115	03/09/2022

Batch R308033 **SampType:** MSD Units mg/L RPD Limit: 15
SampID: 22030433-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		4		**32**	20.00	12.58	98.1	31.95	0.78	03/09/2022

Batch R308033 **SampType:** MS Units mg/L
SampID: 22030442-004CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		80	E	**1020**	400.0	615.5	101.3	85	115	03/09/2022

Batch R308033 **SampType:** MSD Units mg/L RPD Limit: 15
SampID: 22030442-004CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		80	E	**1010**	400.0	615.5	99.7	1021	0.60	03/09/2022

Batch R308033 **SampType:** MS Units mg/L
SampID: 22030502-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		40		**281**	200.0	76.38	102.5	85	115	03/09/2022

Batch R308033 **SampType:** MSD Units mg/L RPD Limit: 15
SampID: 22030502-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		40		**280**	200.0	76.38	101.7	281.3	0.55	03/09/2022

Client: Southern Illinois Power Cooperation **Work Order:** 22021140

Client Project: Groundwater Monitoring **Report Date:** 28-Mar-22

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

Batch R308033 **SampType:** MS Units **mg/L**
SampID: 22030503-004AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		200	E	**2620**	1000	1734	88.9	85	115	03/09/2022

Batch R308033 **SampType:** MSD Units **mg/L** RPD Limit: **15**
SampID: 22030503-004AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		200	E	**2610**	1000	1734	87.3	2623	0.61	03/09/2022

Batch R308033 **SampType:** MS Units **mg/L**
SampID: 22030614-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		200		**1750**	1000	830.7	91.5	85	115	03/09/2022

Batch R308033 **SampType:** MSD Units **mg/L** RPD Limit: **15**
SampID: 22030614-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		200		**1750**	1000	830.7	91.7	1745	0.16	03/09/2022

Batch R308170 **SampType:** MBLK Units **mg/L**
SampID: ICB/MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		**< 1**	0.5000	0	0	-100	100	03/11/2022

Batch R308170 **SampType:** MBLK Units **mg/L**
SampID: MBLK 220310

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	03/11/2022

Batch R308170 **SampType:** LCS Units **mg/L**
SampID: ICV/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		**20**	20.00	0	100.8	90	110	03/11/2022

Batch R308170 **SampType:** MS Units **mg/L**
SampID: 22030673-002AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		2		**96**	40.00	62.45	85.1	85	115	03/11/2022

Client: Southern Illinois Power Cooperation **Work Order:** 22021140

Client Project: Groundwater Monitoring **Report Date:** 28-Mar-22

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

Batch R308170 **SampType:** MSD Units **mg/L** RPD Limit: **15**

SampID: 22030673-002AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		2		**98**	40.00	62.45	87.8	96.49	1.13	03/11/2022

Batch R308170 **SampType:** MS Units **mg/L**

SampID: 22030687-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		20		**677**	400.0	302.4	93.6	85	115	03/11/2022

Batch R308170 **SampType:** MSD Units **mg/L** RPD Limit: **15**

SampID: 22030687-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		20		**673**	400.0	302.4	92.7	676.6	0.49	03/11/2022

Batch R308170 **SampType:** MS Units **mg/L**

SampID: 22030697-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		200		**9140**	4000	5707	85.7	85	115	03/11/2022

Batch R308170 **SampType:** MSD Units **mg/L** RPD Limit: **15**

SampID: 22030697-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		200		**9280**	4000	5707	89.4	9136	1.58	03/11/2022

Batch R308170 **SampType:** MS Units **mg/L**

SampID: 22030763-002AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		20	E	**1050**	400.0	690.0	91.2	85	115	03/11/2022

Batch R308170 **SampType:** MSD Units **mg/L** RPD Limit: **15**

SampID: 22030763-002AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		20	E	**1060**	400.0	690.0	92.2	1055	0.36	03/11/2022

Batch R308309 **SampType:** MBLK Units **mg/L**

SampID: ICB/MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		**< 1**	0.5000	0	0	-100	100	03/15/2022

Client: Southern Illinois Power Cooperation
Client Project: Groundwater Monitoring

Work Order: 22021140
Report Date: 28-Mar-22

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

Batch R308309 **SampType:** LCS Units **mg/L**
SampID: ICV/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		**20**	20.00	0	100.5	90	110	03/15/2022

Batch R308309 **SampType:** MS Units **mg/L**
SampID: 22021140-006AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		**23**	20.00	3.220	98.2	85	115	03/15/2022

Batch R308309 **SampType:** MSD Units **mg/L** RPD Limit: **15**
SampID: 22021140-006AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		1		**23**	20.00	3.220	98.8	22.86	0.52	03/15/2022

SW-846 9036 (TOTAL)

Batch R308032 **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	03/09/2022

Batch R308032 **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		**20**	20.00	0	99.5	90	110	03/09/2022

Batch R308032 **SampType:** MS Units **mg/L**
SampID: 22021140-004AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		50		**238**	100.0	152.8	85.4	85	115	03/09/2022

Batch R308032 **SampType:** MSD Units **mg/L** RPD Limit: **10**
SampID: 22021140-004AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		50		**238**	100.0	152.8	85.6	238.1	0.07	03/09/2022

Client: Southern Illinois Power Cooperation
Client Project: Groundwater Monitoring

Work Order: 22021140
Report Date: 28-Mar-22

SW-846 9036 (TOTAL)

Batch R308032 **SampType:** MS — Units mg/L
SampID: 22030442-004CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		50		**192**	100.0	98.94	93.3	90	110	03/09/2022

Batch R308032 **SampType:** MSD — Units mg/L — RPD Limit: 10
SampID: 22030442-004CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		50		**195**	100.0	98.94	95.7	192.2	1.28	03/09/2022

Batch R308032 **SampType:** MS — Units mg/L
SampID: 22030465-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		100		**353**	200.0	156.0	98.7	90	110	03/09/2022

Batch R308032 **SampType:** MSD — Units mg/L — RPD Limit: 10
SampID: 22030465-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		100		**356**	200.0	156.0	100.2	353.3	0.85	03/09/2022

Batch R308032 **SampType:** MS — Units mg/L
SampID: 22030502-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		100		**377**	200.0	186.5	95.4	90	110	03/09/2022

Batch R308032 **SampType:** MSD — Units mg/L — RPD Limit: 10
SampID: 22030502-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		100		**388**	200.0	186.5	100.6	377.3	2.71	03/09/2022

Batch R308032 **SampType:** MS — Units mg/L
SampID: 22030593-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		100		**467**	200.0	275.0	96.2	85	115	03/09/2022

Batch R308032 **SampType:** MSD — Units mg/L — RPD Limit: 10
SampID: 22030593-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		100		**459**	200.0	275.0	91.8	467.5	1.93	03/09/2022

Client: Southern Illinois Power Cooperation **Work Order:** 22021140

Client Project: Groundwater Monitoring **Report Date:** 28-Mar-22

SW-846 9036 (TOTAL)

Batch R308032 **SampType:** MS Units **mg/L**
SampID: 22030614-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		2000		**6600**	4000	2742	96.5	90	110	03/09/2022

Batch R308032 **SampType:** MSD Units **mg/L** RPD Limit: **10**
SampID: 22030614-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		2000		**6880**	4000	2742	103.5	6603	4.15	03/09/2022

Batch R308169 **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	03/11/2022

Batch R308169 **SampType:** MBLK Units **mg/L**
SampID: MBLK 220310

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate	*	10		**< 10**	7.620	0	0	-100	100	03/11/2022

Batch R308169 **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		**20**	20.00	0	99.0	90	110	03/11/2022

Batch R308169 **SampType:** MS Units **mg/L**
SampID: 22030503-004AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		1000		**3690**	2000	1697	99.5	90	110	03/11/2022

Batch R308169 **SampType:** MSD Units **mg/L** RPD Limit: **10**
SampID: 22030503-004AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		1000		**3700**	2000	1697	100.0	3687	0.27	03/11/2022

Batch R308169 **SampType:** MS Units **mg/L**
SampID: 22030673-002AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		20		**96**	40.00	56.54	99.5	90	110	03/11/2022

Client: Southern Illinois Power Cooperation **Work Order:** 22021140

Client Project: Groundwater Monitoring **Report Date:** 28-Mar-22

SW-846 9036 (TOTAL)

Batch R308169 **SampType:** MSD Units **mg/L** RPD Limit: **10**

SampID: 22030673-002AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		20		**97**	40.00	56.54	101.8	96.32	0.97	03/11/2022

Batch R308169 **SampType:** MS Units **mg/L**

SampID: 22030697-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		2000	S	**8920**	4000	5561	83.9	90	110	03/11/2022

Batch R308169 **SampType:** MSD Units **mg/L** RPD Limit: **10**

SampID: 22030697-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		2000		**9390**	4000	5561	95.8	8919	5.18	03/11/2022

Batch R308169 **SampType:** MS Units **mg/L**

SampID: 22030859-002AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		100		**459**	200.0	276.0	91.4	85	115	03/11/2022

Batch R308169 **SampType:** MSD Units **mg/L** RPD Limit: **10**

SampID: 22030859-002AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		100		**457**	200.0	276.0	90.6	458.9	0.39	03/11/2022

SW-846 9214 (TOTAL)

Batch R308014 **SampType:** MBLK Units **mg/L**

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	03/09/2022

Batch R308014 **SampType:** LCS Units **mg/L**

SampID: LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.10		**1.00**	1.000	0	99.5	90	110	03/09/2022

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22

SW-846 9214 (TOTAL)

Batch R308014 **SampType:** MS Units **mg/L**
SampID: 22030553-001CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.10		**2.75**	2.000	0.7280	101.1	75	125	03/09/2022

Batch R308014 **SampType:** MSD Units **mg/L** RPD Limit: **15**
SampID: 22030553-001CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Fluoride		0.10		**2.76**	2.000	0.7280	101.8	2.750	0.47	03/09/2022

Batch R308014 **SampType:** MS Units **mg/L**
SampID: 22030614-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		1.00		**35.1**	20.00	14.72	102.0	75	125	03/09/2022

Batch R308014 **SampType:** MSD Units **mg/L** RPD Limit: **15**
SampID: 22030614-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Fluoride		1.00		**35.6**	20.00	14.72	104.4	35.11	1.39	03/09/2022

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

Batch 188407 **SampType:** MBLK Units **mg/L**
SampID: MBLK-188407

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		**< 0.0025**	0.0007	0	0	-100	100	03/10/2022
Boron		0.0200		**< 0.0200**	0.0090	0	0	-100	100	03/10/2022
Calcium		0.100		**< 0.100**	0.0350	0	0	-100	100	03/10/2022

Batch 188407 **SampType:** LCS Units **mg/L**
SampID: LCS-188407

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		**2.05**	2.000	0	102.7	85	115	03/10/2022
Boron		0.0200		**0.506**	0.5000	0	101.2	85	115	03/10/2022
Calcium		0.100		**2.58**	2.500	0	103.2	85	115	03/10/2022

Client: Southern Illinois Power Cooperation **Work Order:** 22021140

Client Project: Groundwater Monitoring **Report Date:** 28-Mar-22

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

Batch 188407 **SampType:** MS Units **mg/L**

SampID: 22021140-005CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		**2.10**	2.000	0.03130	103.7	75	125	03/10/2022
Boron		0.0200	S	**11.8**	0.5000	11.10	144.0	75	125	03/10/2022
Calcium		0.100	S	**175**	2.500	170.6	168.0	75	125	03/10/2022

Batch 188407 **SampType:** MSD Units **mg/L** RPD Limit: **20**

SampID: 22021140-005CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Barium		0.0025		**2.08**	2.000	0.03130	102.4	2.105	1.24	03/10/2022
Boron		0.0200		**11.6**	0.5000	11.10	110.0	11.82	1.45	03/10/2022
Calcium		0.100		**173**	2.500	170.6	84.0	174.8	1.21	03/10/2022

Batch 188407 **SampType:** MS Units **mg/L**

SampID: 22030500-002BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100	S	**281**	2.500	277.7	148.0	75	125	03/10/2022

Batch 188407 **SampType:** MSD Units **mg/L** RPD Limit: **20**

SampID: 22030500-002BMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Calcium		0.100	S	**284**	2.500	277.7	236.0	281.4	0.78	03/10/2022

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

Batch 188407 **SampType:** MBLK Units **mg/L**

SampID: MBLK-188407

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	03/15/2022
Arsenic		0.0010		**< 0.0010**	0.0004	0	0	-100	100	03/15/2022
Beryllium		0.0010		**< 0.0010**	0.0002	0	0	-100	100	03/15/2022
Cadmium		0.0010		**< 0.0010**	0.0001	0	0	-100	100	03/15/2022
Chromium		0.0015		**< 0.0015**	0.0007	0	0	-100	100	03/15/2022
Cobalt		0.0010		**< 0.0010**	0.0001	0	0	-100	100	03/15/2022
Lead		0.0010		**< 0.0010**	0.0006	0	0	-100	100	03/15/2022
Lithium	*	0.0030		**< 0.0030**	0.0015	0	0	-100	100	03/15/2022
Molybdenum		0.0015		**< 0.0015**	0.0006	0	0	-100	100	03/15/2022
Selenium		0.0010		**< 0.0010**	0.0006	0	0	-100	100	03/15/2022
Thallium		0.0020		**< 0.0020**	0.0010	0	0	-100	100	03/15/2022

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22

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

Batch 188407 **SampType:** LCS Units mg/L
SampID: LCS-188407

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		**0.486**	0.5000	0	97.2	80	120	03/15/2022
Arsenic		0.0010		**0.508**	0.5000	0	101.6	80	120	03/15/2022
Beryllium		0.0010		**0.0476**	0.0500	0	95.2	80	120	03/15/2022
Cadmium		0.0010		**0.0521**	0.0500	0	104.1	80	120	03/15/2022
Chromium		0.0015		**0.196**	0.2000	0	98.1	80	120	03/15/2022
Cobalt		0.0010		**0.506**	0.5000	0	101.1	80	120	03/15/2022
Lead		0.0010		**0.493**	0.5000	0	98.5	80	120	03/15/2022
Lithium	*	0.0030		**0.511**	0.5000	0	102.2	80	120	03/15/2022
Molybdenum		0.0015		**0.490**	0.5000	0	98.0	80	120	03/15/2022
Selenium		0.0010		**0.466**	0.5000	0	93.1	80	120	03/15/2022
Thallium		0.0020		**0.233**	0.2500	0	93.2	80	120	03/15/2022

Batch 188407 **SampType:** MS Units mg/L
SampID: 22021140-005CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		**0.523**	0.5000	0	104.6	75	125	03/16/2022
Arsenic		0.0010		**0.529**	0.5000	0.005331	104.7	75	125	03/16/2022
Beryllium		0.0010		**0.0472**	0.0500	0	94.3	75	125	03/15/2022
Cadmium		0.0010		**0.0549**	0.0500	0	109.9	75	125	03/15/2022
Chromium		0.0015		**0.201**	0.2000	0.002030	99.5	75	125	03/15/2022
Cobalt		0.0010		**0.705**	0.5000	0.1997	101.1	75	125	03/15/2022
Lead		0.0010		**0.512**	0.5000	0	102.4	75	125	03/15/2022
Lithium	*	0.0030		**0.532**	0.5000	0.002539	105.9	75	125	03/15/2022
Molybdenum		0.0015		**0.521**	0.5000	0	104.3	75	125	03/16/2022
Selenium		0.0010		**0.486**	0.5000	0	97.1	75	125	03/16/2022
Thallium		0.0020		**0.246**	0.2500	0	98.4	75	125	03/15/2022

Client: Southern Illinois Power Cooperation

Client Project: Groundwater Monitoring

Work Order: 22021140

Report Date: 28-Mar-22

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

Batch 188407 **SampType:** MSD Units **mg/L** RPD Limit: **20**

SampID: 22021140-005CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0010		**0.518**	0.5000	0	103.7	0.5228	0.85	03/16/2022
Arsenic		0.0010		**0.512**	0.5000	0.005331	101.3	0.5289	3.26	03/16/2022
Beryllium		0.0010		**0.0462**	0.0500	0	92.4	0.04717	2.11	03/15/2022
Cadmium		0.0010		**0.0534**	0.0500	0	106.8	0.05493	2.87	03/15/2022
Chromium		0.0015		**0.191**	0.2000	0.002030	94.6	0.2010	4.98	03/15/2022
Cobalt		0.0010		**0.676**	0.5000	0.1997	95.3	0.7052	4.21	03/15/2022
Lead		0.0010		**0.488**	0.5000	0	97.5	0.5121	4.88	03/15/2022
Lithium	*	0.0030		**0.503**	0.5000	0.002539	100.1	0.5321	5.59	03/15/2022
Molybdenum		0.0015		**0.516**	0.5000	0	103.2	0.5215	1.04	03/16/2022
Selenium		0.0010		**0.468**	0.5000	0	93.5	0.4856	3.74	03/16/2022
Thallium		0.0020		**0.241**	0.2500	0	96.6	0.2459	1.85	03/15/2022

SW-846 7470A (TOTAL)

Batch 188417 **SampType:** MBLK Units **mg/L**

SampID: MBLK-188417

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	03/10/2022

Batch 188417 **SampType:** LCS Units **mg/L**

SampID: LCS-188417

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		**0.00465**	0.0050	0	93.1	85	115	03/10/2022

Batch 188417 **SampType:** MS Units **mg/L**

SampID: 22030593-002BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		**0.00455**	0.0050	0	91.0	75	125	03/10/2022

Batch 188417 **SampType:** MSD Units **mg/L** RPD Limit: **15**

SampID: 22030593-002BMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		**0.00444**	0.0050	0	88.9	0.004552	2.38	03/10/2022

Client: Southern Illinois Power Cooperation
Client Project: Groundwater Monitoring

Work Order: 22021140
Report Date: 28-Mar-22

SW-846 7470A (TOTAL)

Batch 188417 **SampType:** MS Units **mg/L**
SampID: 22030678-001CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		**0.00458**	0.0050	0	91.5	75	125	03/10/2022

Batch 188417 **SampType:** MSD Units **mg/L** RPD Limit: **15**
SampID: 22030678-001CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		**0.00447**	0.0050	0	89.4	0.004576	2.34	03/10/2022

Batch 188481 **SampType:** MBLK Units **mg/L**
SampID: MBLK-188481

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	03/12/2022

Batch 188481 **SampType:** LCS Units **mg/L**
SampID: LCS-188481

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		**0.00460**	0.0050	0	92.0	85	115	03/12/2022

Batch 188481 **SampType:** MS Units **mg/L**
SampID: 22021140-011CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		**0.00467**	0.0050	0	93.4	75	125	03/12/2022

Batch 188481 **SampType:** MSD Units **mg/L** RPD Limit: **15**
SampID: 22021140-011CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		**0.00481**	0.0050	0	96.1	0.004672	2.83	03/12/2022

Teklab, Inc.
Environmental Laboratory

Receiving Check List

http://www.teklabinc.com/

Client: Southern Illinois Power Cooperation
Work Order: 22021140
Client Project: Groundwater Monitoring
Report Date: 28-Mar-22

Carrier: Adam Bridges
Received By: PRY

Completed by: Mary E. Kemp
On: 09-Mar-22
Mary E. Kemp

Reviewed by: Elizabeth A. Hurley
On: 09-Mar-22
Elizabeth A. Hurley

Pages to follow: Chain of custody 2 Extra pages included 22

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 4.0
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☑	Lab ☐	NA ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials ☑	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

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

pH strip #78011. - PRY/MKemp - 3/9/2022 8:40:51 AM

CHAIN OF CUSTODY

pg. 1 of 2 Work order # 22021140

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 **Phone:** (618) 964-1448
E-Mail: jmclaurin@sipower.org **Fax:**

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 4.0 °C LTG# 1
Preserved in: ☐ LAB ☒ FIELD **FOR LAB USE ONLY**
Lab Notes: PHV 78011. RAT 3/9/22

Client Comments * Dup

ICP: Ba B Ca
ICP/MS: Sb As Be Cd Cr Co Pb Li Mo Se Tl

Field Parameters = Elevations, Purge Volume, pH, Conductivity, Temperature, DO, ORP, and Turbidity

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: J. RILEY A. BRIDGES

Results Requested: ☒ Standard ☐ 1-2 Day (100% Surcharge) ☐ Other ___ ☐ 3 Day (50% Surcharge)

Billing Instructions

Lab Use Only	Sample Identification	Date/Time Sampled	UNP	HNO3	Aqueous	Groundwater	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Ra226/228	Sulfate	TDS
22021140-001	EBG	03/07/22 1142	1	3		X	X	X	X	X	X	X	X	X	X
002	EP-1	03/07/22 1411	1	3		X	X	X	X	X	X	X	X	X	X
003	EP-2 *	03/07/22 1525	1	3		X	X	X	X	X	X	X	X	X	X
004	EP-3	03/08/22 1308	1	3		X	X	X	X	X	X	X	X	X	X
005	EP-4	03/08/22 1435	1	3		X	X	X	X	X	X	X	X	X	X
006	EP-5	03/07/22 1249	1	3		X	X	X	X	X	X	X	X	X	X
007	EP-6	03/08/22 0836	1	3		X	X	X	X	X	X	X	X	X	X
008	EP-7	03/08/22 1103	1	3		X	X	X	X	X	X	X	X	X	X
009	Equipment Blank	03/08/22 1436	1	3	X		X		X	X	X	X	X	X	X
010	Field Blank	03/07/22 1538	1	3	X		X		X	X	X	X	X	X	X

Relinquished By	Date/Time	Received By	Date/Time
[signature]	3-9-22 0800	[signature]	3/9/22 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.

BottleOrder: 70999

RAT 3/9/22

CHAIN OF CUSTODY

pg. 2 of 2 Work order # 22021140

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
Phone:	(618) 964-1448
E-Mail:	jmclaurin@sipower.org
Fax:	

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 4.0 °C LTG# 1

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 Li Mo Se Tl

Field Parameters = Elevations, Purge Volume, pH, Conductivity, Temperature, DO, ORP, and Turbidity

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	Sample Collector's Name
Groundwater Monitoring	S. RILEY A. REID

Results Requested

☐ Standard ☐ 1-2 Day (100% Surcharge)

☐ Other ____ ☐ 3 Day (50% Surcharge)

Billing Instructions

Lab Use Only	Sample Identification	Date/Time Sampled	# and Type of Containers: UNP	HNO3	MATRIX: Aqueous	Groundwater	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Ra226/228	Sulfate	TDS
22021140-011	Field Duplicate	03/01/22 1525	1	3		X	X	X	X	X	X	X	X	X	X

Relinquished By	Date/Time	Received By	Date/Time
	3-9-22 0800		3/9/22 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.

BottleOrder: 70999

ANALYTICAL REPORT

March 25, 2022

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

TEKLAB, Inc.

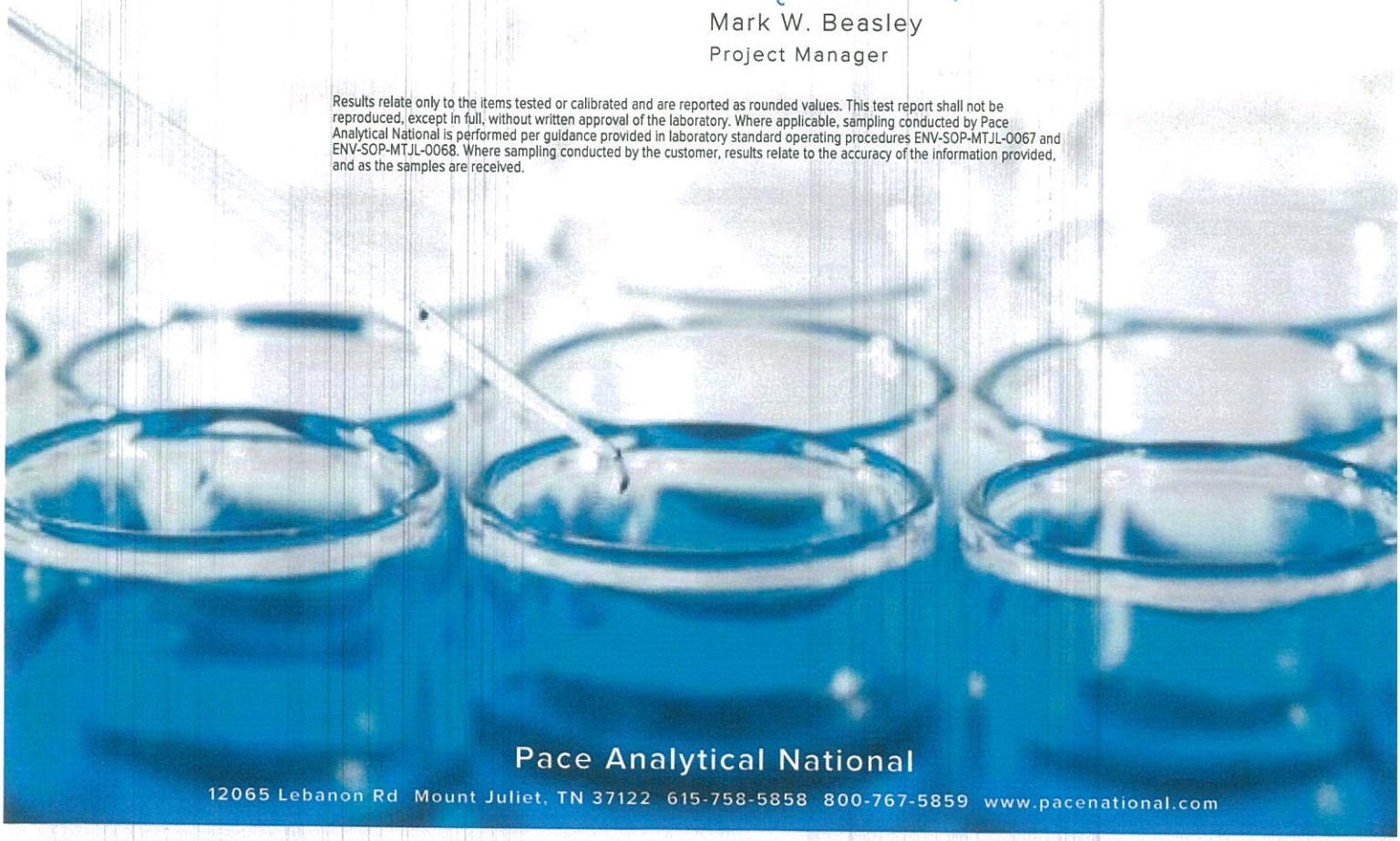
Sample Delivery Group:	L1470373
Samples Received:	03/11/2022
Project Number:	22021140
Description:	

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

TABLE OF CONTENTS

SAMPLE SUMMARY

22021140-001B L1470373-01 Non-Potable Water

Collected by | Collected date/time 03/07/22 11:42 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/23/22 15:00	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/23/22 15:00	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/16/22 13:34	RGT	Mt. Juliet, TN

22021140-002B L1470373-02 Non-Potable Water

Collected by | Collected date/time 03/07/22 14:11 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/23/22 15:00	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/23/22 15:00	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/16/22 13:34	RGT	Mt. Juliet, TN

22021140-003B L1470373-03 Non-Potable Water

Collected by | Collected date/time 03/07/22 15:25 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/23/22 15:00	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/23/22 15:00	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/16/22 13:34	RGT	Mt. Juliet, TN

22021140-004B L1470373-04 Non-Potable Water

Collected by | Collected date/time 03/08/22 13:08 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/23/22 15:00	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/23/22 15:00	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/16/22 13:34	RGT	Mt. Juliet, TN

22021140-005B L1470373-05 Non-Potable Water

Collected by | Collected date/time 03/08/22 14:35 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/23/22 15:00	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/23/22 15:00	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/16/22 13:34	RGT	Mt. Juliet, TN

22021140-006B L1470373-06 Non-Potable Water

Collected by | Collected date/time 03/07/22 12:49 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/16/22 13:34	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

22021140-007B L1470373-07 Non-Potable Water

Collected by | Collected date/time 03/08/22 08:36 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/16/22 13:34	RGT	Mt. Juliet, TN

22021140-008B L1470373-08 Non-Potable Water

Collected by | Collected date/time 03/08/22 11:03 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/16/22 13:34	RGT	Mt. Juliet, TN

22021140-009B L1470373-09 Non-Potable Water

Collected by | Collected date/time 03/08/22 14:38 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/17/22 08:45	RGT	Mt. Juliet, TN

22021140-010B L1470373-10 Non-Potable Water

Collected by | Collected date/time 03/07/22 15:28 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/17/22 08:45	RGT	Mt. Juliet, TN

22021140-011B L1470373-11 Non-Potable Water

Collected by | Collected date/time 03/07/22 15:25 | Received date/time 03/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1830859	1	03/15/22 12:48	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1831801	1	03/15/22 15:00	03/24/22 12:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1831801	1	03/15/22 15:00	03/17/22 08:45	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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.18		0.406	0.720	03/23/2022 15:00	WG1830859
(T) Barium	*96.4*			*62.0-143*	*03/23/2022 15:00*	WG1830859
(T) Yttrium	*96.8*			*79.0-136*	*03/23/2022 15:00*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.40		0.452	0.746	03/23/2022 15:00	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.215		0.198	0.194	03/16/2022 13:34	WG1831801
(T) Barium-133	*95.8*			*30.0-143*	*03/16/2022 13:34*	WG1831801

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.439	J	0.330	0.606	03/23/2022 15:00	WG1830859
(T) Barium	*87.9*			*62.0-143*	*03/23/2022 15:00*	WG1830859
(T) Yttrium	*99.1*			*79.0-136*	*03/23/2022 15:00*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.699		0.410	0.671	03/23/2022 15:00	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.260	J	0.243	0.289	03/16/2022 13:34	WG1831801
(T) Barium-133	*95.5*			*30.0-143*	*03/16/2022 13:34*	WG1831801

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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty +/- pCi/l	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.426	J	0.334	0.614	03/23/2022 15:00	WG1830859
(T) Barium	*91.9*			*62.0-143*	*03/23/2022 15:00*	WG1830859
(T) Yttrium	*98.6*			*79.0-136*	*03/23/2022 15:00*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty +/- pCi/l	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.458	J	0.377	0.704	03/23/2022 15:00	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty +/- pCi/l	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0315	U	0.174	0.344	03/16/2022 13:34	WG1831801
(T) Barium-133	*95.3*			*30.0-143*	*03/16/2022 13:34*	WG1831801

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

22021140-004B
Collected date/time: 03/08/22 13:08

SAMPLE RESULTS - 04

L1470373

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+/-	pCi/l	date / time	
RADIUM-228	0.765		0.315	0.565	03/23/2022 15:00	WG1830859
(T) Barium	*97.5*			*62.0-143*	*03/23/2022 15:00*	WG1830859
(T) Yttrium	*101*			*79.0-136*	*03/23/2022 15:00*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+/-	pCi/l	date / time	
Combined Radium	1.13		0.407	0.610	03/23/2022 15:00	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+/-	pCi/l	date / time	
RADIUM-226	0.365		0.257	0.229	03/16/2022 13:34	WG1831801
(T) Barium-133	*93.2*			*30.0-143*	*03/16/2022 13:34*	WG1831801

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.658		0.335	0.608	03/23/2022 15:00	WG1830859
(T) Barium	*89.6*			*62.0-143*	*03/23/2022 15:00*	WG1830859
(T) Yttrium	*103*			*79.0-136*	*03/23/2022 15:00*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.893		0.388	0.633	03/23/2022 15:00	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.234		0.195	0.175	03/16/2022 13:34	WG1831801
(T) Barium-133	*99.5*			*30.0-143*	*03/16/2022 13:34*	WG1831801

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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.474	J	0.306	0.542	03/24/2022 12:30	WG1830859
(T) Barium	*92.3*			*62.0-143*	*03/24/2022 12:30*	WG1830859
(T) Yttrium	*95.7*			*79.0-136*	*03/24/2022 12:30*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.630		0.346	0.570	03/24/2022 12:30	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.157	J	0.162	0.178	03/16/2022 13:34	WG1831801
(T) Barium-133	*99.2*			*30.0-143*	*03/16/2022 13:34*	WG1831801

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.01		0.324	0.555	03/24/2022 12:30	WG1830859
(T) Barium	*98.3*			*62.0-143*	*03/24/2022 12:30*	WG1830859
(T) Yttrium	*98.3*			*79.0-136*	*03/24/2022 12:30*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.13		0.357	0.586	03/24/2022 12:30	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.123	J	0.150	0.188	03/16/2022 13:34	WG1831801
(T) Barium-133	*97.7*			*30.0-143*	*03/16/2022 13:34*	WG1831801

22021140-008B
Collected date/time: 03/08/22 11:03

SAMPLE RESULTS - 08

L1470373

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.954		0.384	0.666	03/24/2022 12:30	WG1830859
(T) Barium	*83.4*			*62.0-143*	*03/24/2022 12:30*	WG1830859
(T) Yttrium	*95.8*			*79.0-136*	*03/24/2022 12:30*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.03		0.420	0.727	03/24/2022 12:30	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0766	U	0.171	0.292	03/16/2022 13:34	WG1831801
(T) Barium-133	*99.0*			*30.0-143*	*03/16/2022 13:34*	WG1831801

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.0407	U	0.385	0.703	03/24/2022 12:30	WG1830859
(T) Barium	*95.5*			*62.0-143*	*03/24/2022 12:30*	WG1830859
(T) Yttrium	*96.7*			*79.0-136*	*03/24/2022 12:30*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0841	U	0.421	0.759	03/24/2022 12:30	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0841	U	0.170	0.285	03/17/2022 08:45	WG1831801
(T) Barium-133	*99.7*			*30.0-143*	*03/17/2022 08:45*	WG1831801

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.195	U	0.401	0.722	03/24/2022 12:30	WG1830859
(T) Barium	*105*			*62.0-143*	*03/24/2022 12:30*	WG1830859
(T) Yttrium	*97.9*			*79.0-136*	*03/24/2022 12:30*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.241	U	0.434	0.791	03/24/2022 12:30	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0463	U	0.167	0.322	03/17/2022 08:45	WG1831801
(T) Barium-133	*102*			*30.0-143*	*03/17/2022 08:45*	WG1831801

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.57		0.349	0.580	03/24/2022 12:30	WG1830859
(T) Barium	*89.2*			*62.0-143*	*03/24/2022 12:30*	WG1830859
(T) Yttrium	*94.8*			*79.0-136*	*03/24/2022 12:30*	WG1830859

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.60		0.381	0.652	03/24/2022 12:30	WG1831801

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty +/-	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0347	U	0.152	0.297	03/17/2022 08:45	WG1831801
(T) Barium-133	*98.3*			*30.0-143*	*03/17/2022 08:45*	WG1831801

WG1830859

Radiochemistry by Method 904/9320

QUALITY CONTROL SUMMARY

L1470373-01,02,03,04,05,06,07,08,09,10,11

Method Blank (MB)

(MB) R3774012-1 03/23/22 15:00

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	0.252	J	0.232	0.427
(T) Barium	*103*		*103*	
(T) Yttrium	*97.2*		*97.2*	

L1467310-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1467310-06 03/23/22 15:00 • (DUP) R3774012-5 03/23/22 15:00

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	1.46	0.303	0.518	1.21	0.562	0.518	1	19.2	0.401		20	3
(T) Barium	*101*			*103*	*103*							
(T) Yttrium	*107*			*99.7*	*99.7*							

Laboratory Control Sample (LCS)

(LCS) R3774012-2 03/23/22 15:00

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.16	103	80.0-120	
(T) Barium			*102*		
(T) Yttrium			*93.8*		

L1467310-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1467310-05 03/23/22 15:00 • (MS) R3774012-3 03/23/22 15:00 • (MSD) R3774012-4 03/23/22 15:00

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	10.0	-0.222	10.7	9.93	107	99.3	1	70.0-130			7.64		20
(T) Barium		*105*			*105*	*108*							
(T) Yttrium		*112*			*102*	*101*							

WG1831801

Radiochemistry by Method SM7500Ra B M

QUALITY CONTROL SUMMARY

L1470373-01,02,03,04,05,06,07,08,09,10,11

Method Blank (MB)

(MB) R3771020-1 03/16/22 13:34

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-226	-0.000572	U	0.0321	0.0757
(T) Barium-133	*93.9*		*93.9*	

L1470373-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1470373-11 03/17/22 08:45 • (DUP) R3771020-5 03/16/22 13:34

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	0.0347	0.152	0.297	0.0572	0.129	0.297	1	49.1	0.113	U	20	3
(T) Barium-133	*98.3*			*98.8*	*98.8*							

Laboratory Control Sample (LCS)

(LCS) R3771020-2 03/16/22 13:34

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.02	4.84	96.4	80.0-120	
(T) Barium-133			*99.8*		

L1467820-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1467820-01 03/16/22 13:34 • (MS) R3771020-3 03/16/22 13:34 • (MSD) R3771020-4 03/16/22 13:34

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-226	20.1	0.164	19.6	19.0	96.6	93.6	1	75.0-125			3.16		20
(T) Barium-133		*93.6*			*94.9*	*95.3*							

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.

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] 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.

Pg ___ of ___ A135

TEKLAB, INC. Chain of Custody

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

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

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: J. Riley A. Bridges QC Level: 3

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 22/228 per methods specified for Vistra/Ramboll projects.
Collected at an IL site.
Batch QC is required for all analyses requested. EDD requested.

Project# 22021140

Contact: Elizabeth A. Hurley Email: ehurley@teklabinc.com Phone: (618) 344-1004 ext 33
Requested Due Date: 10-15 day TAT Billing/PO: 32548

L1470373

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.

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

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228											
-01	22021140-001B	3/7/22 1142	HNO3	Groundwater	✓											
-02	22021140-002B	3/7/22 1411	HNO3	Groundwater	✓											
-03	22021140-003B	3/7/22 1525	HNO3	Groundwater	✓											
-04	22021140-004B	3/8/22 1308	HNO3	Groundwater	✓											
-05	22021140-005B	3/8/22 1435	HNO3	Groundwater	✓											
-06	22021140-006B	3/7/22 1249	HNO3	Groundwater	✓											
-07	22021140-007B	3/8/22 0836	HNO3	Groundwater	✓											
-08	22021140-008B	3/8/22 1103	HNO3	Groundwater	✓											
-09	22021140-009B	3/8/22 1438	HNO3	Groundwater	✓											
-10	22021140-010B	3/7/22 1528	HNO3	Groundwater	✓											
	22021140-011B	3/7/22 1525	HNO3	Groundwater	✓											

*Relinquished By	Date/Time	Received By	Date/Time
1	3/9/22 1600		3/11/22 0900
2			
3			
4			
5			

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization, and proprietary rights. Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

3/11-NCF-L1470373 TEKLABIL

R5

Time estimate: oh **Time spent:** oh

Members

HM Hailey Melson (responsible) MB Mark Beasley

Due on *15 March 2022 8:00 AM* for target *Done*

- [x] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [ ] Sample IDs on containers do not match IDs on COC
- [ ] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:____3/13/22_____
- [ ] PM initials:_____MB_____
- [ ] Client Contact:_____Elizabeth H_____

Comments

Hailey Melson *11 March 2022 1:02 PM*

Missing ID: 22021140-011B

Mark Beasley *13 March 2022 3:11 PM*

Client notified

Hailey Melson *14 March 2022 9:24 AM*

Done