

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

FLY ASH IMPOUNDMENT SIBLEY GENERATING STATION SIBLEY, MISSOURI

Presented To:
Eversource Energy Missouri West, Inc.

SCS ENGINEERS

27213169.23 | January 2024

8575 W 110th Street, Suite 100
Overland Park, Kansas 66210
913-681-0030

CERTIFICATIONS

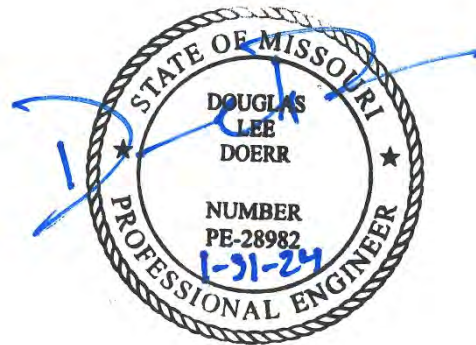
I, John R. Rockhold, being a qualified groundwater scientist and Registered Geologist in the State of Missouri, do hereby certify that the 2023 Annual Groundwater Monitoring and Corrective Action Report for the Fly Ash Impoundment at the Sibley Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).



John R. Rockhold, R.G.

SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Missouri, do hereby certify that the 2023 Annual Groundwater Monitoring and Corrective Action Report for the Fly Ash Impoundment at the Sibley Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).



Douglas L. Doerr, P.E.

SCS Engineers

2023 Groundwater Monitoring and Corrective Action Report

Revision Number	Revision Date	Revision Sections	Summary of Revisions
0	January 31, 2024	NA	Original

Table of Contents

Section	Page
CERTIFICATIONS	i
1 INTRODUCTION	1
1.1 § 257.90(e)(6) Summary.....	1
1.1.1 § 257.90(e)(6)(i) Initial Monitoring Program	1
1.1.2 § 257.90(e)(6)(ii) Final Monitoring Program	1
1.1.3 § 257.90(e)(6)(iii) Statistically Significant Increases.....	1
1.1.4 § 257.90(e)(6)(iv) Statistically Significant Levels	2
1.1.5 § 257.90(e)(6)(v) Selection of Remedy	2
1.1.6 § 257.90(e)(6)(vi) Remedial Activities.....	3
2 § 257.90(e) ANNUAL REPORT REQUIREMENTS	3
2.1 § 257.90(e)(1) Site Map.....	3
2.2 § 257.90(e)(2) Monitoring System Changes.....	3
2.3 § 257.90(e)(3) Summary of Sampling Events.....	3
2.4 § 257.90(e)(4) Monitoring Transition Narrative.....	4
2.5 § 257.90(e)(5) Other Requirements.....	4
2.5.1 § 257.90(e) Program Status	4
2.5.2 § 257.94(d)(3) Demonstration for Alternative Detection Monitoring Frequency... 6	6
2.5.3 § 257.94(e)(2) Detection Monitoring Alternate Source Demonstration..... 6	6
2.5.4 § 257.95(c)(3) Demonstration for Alternative Assessment Monitoring Frequency	6
2.5.5 § 257.95(d)(3) Assessment Monitoring Concentrations and Groundwater Protection Standards	6
2.5.6 § 257.95(g)(3)(ii) Assessment Monitoring Alternate Source Demonstration	7
2.5.7 § 257.96(a) Demonstration for Additional Time for	7
2.6 § 257.90(e)(6) Overview Summary.....	8
3 SUPPLEMENTAL INFORMATION AND DATA	8
4 GENERAL COMMENTS	9

Appendices

Appendix A Figures

- Figure 1: Site Map
- Figure 2: Potentiometric Surface Map (February 2023)
- Figure 3: Potentiometric Surface Map (May 2023)
- Figure 4: Potentiometric Surface Map (November 2023)

Appendix B Tables

- Table 1 - Appendix III and IV Assessment Monitoring Results
- Table 2 - Assessment Monitoring Field Measurements
- Table 3 - Nature and Extent Corrective Measures Monitoring Results
- Table 4 - Nature and Extent Corrective Measures Monitoring Field Measurements
- Table 5 - Appendix IV Background Data and Groundwater Protection Standards

2023 Groundwater Monitoring and Corrective Action Report

Appendix C Laboratory Analytical Reports

Appendix D Statistical Analyses

E.1 Fall 2022 Semiannual Assessment Monitoring Statistical Analyses

E.2 Spring 2023 Semiannual and Annual Assessment Monitoring Statistical Analyses

1 INTRODUCTION

This 2023 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the “Coal Combustion Residuals (CCR) Final Rule” (Rule) published by the United States Environmental Protection Agency (USEPA) in the *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*, dated April 17, 2015 (USEPA, 2015), and subsequent revisions. Specifically, this report was prepared for Evergy Missouri West, Inc. (Evergy) to fulfill the requirements of 40 CFR 257.90 (e). The applicable sections of the Rule are provided below in *italics*, followed by applicable information relative to the 2023 Annual Groundwater Monitoring and Corrective Action Report for the Fly Ash Impoundment at the Sibley Generating Station.

1.1 § 257.90(e)(6) SUMMARY

A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:

1.1.1 § 257.90(e)(6)(i) Initial Monitoring Program

At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;

At the start of the current annual reporting period, (December 31, 2023), the CCR Impoundment was operating under an assessment monitoring program in compliance with § 257.95 for all constituents except for molybdenum. An assessment of corrective measures (ACM) was conducted in accordance with 40 CFR 257.96 for molybdenum, which continues to be monitored under an assessment monitoring program in accordance with 40 CFR 257.96(b).

1.1.2 § 257.90(e)(6)(ii) Final Monitoring Program

At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;

At the end of the current annual reporting period, (December 31, 2023), the CCR Impoundment was operating under an assessment monitoring program in compliance with § 257.95 for all constituents except for molybdenum. An assessment of corrective measures (ACM) was conducted in accordance with 40 CFR 257.96 for molybdenum, which continues to be monitored under an assessment monitoring program in accordance with 40 CFR 257.96(b).

1.1.3 § 257.90(e)(6)(iii) Statistically Significant Increases

If it was determined that there was a statistically significant increase over background for one or more constituents listed in Appendix III to this part pursuant to § 257.94(e):

(A) Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase; and

2023 Groundwater Monitoring and Corrective Action Report

Monitoring Event	Monitoring Well	Constituent	ASD
Fall 2022	MW-804	Fluoride	Not Performed
Fall 2022	MW-805	Fluoride	Not Performed
Spring 2023	MW-804	Fluoride	Not Performed

(B) Provide the date when the assessment monitoring program was initiated for the CCR unit.

Notification of a statistically significant level (SSL) and notification of establishing an Assessment Monitoring Program was provided on March 28, 2022 to meet the requirements of 40 CFR 257.95.

1.1.4 § 257.90(e)(6)(iv) Statistically Significant Levels

If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in Appendix IV to this part pursuant to § 257.95(g) include all of the following:

(A) Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase;

Monitoring Well	Constituent
MW-806R	Molybdenum

(B) Provide the date when the assessment of corrective measures was initiated for the CCR unit;

An assessment of corrective measures (ACM) was initiated on April 18, 2022 for molybdenum.

(C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and

A public meeting for the ACM was not held in 2023. A public meeting will be held at least 30 days prior to the selection of remedy in accordance with § 257.96(e).

(D) Provide the date when the assessment of corrective measures was completed for the CCR unit.

The ACM was completed on September 15, 2022.

1.1.5 § 257.90(e)(6)(v) Selection of Remedy

Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection; and

A remedy was not selected during the 2023 reporting period for molybdenum.

1.1.6 § 257.90(e)(6)(vi) Remedial Activities

Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

No remedial activities were initiated during the 2023 reporting period.

2 § 257.90(E) ANNUAL REPORT REQUIREMENTS

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

2.1 § 257.90(E)(1) SITE MAP

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

A site map with an aerial image showing the Fly Ash Impoundment and all background (or upgradient) and downgradient monitoring wells with identification numbers for the Fly Ash Impoundment groundwater monitoring program is provided as **Figure 1** in **Appendix A**. Additionally, monitoring wells installed to assist with the nature and extent investigation at the Fly Ash Impoundment are also presented in **Figure 1** in **Appendix A**.

2.2 § 257.90(E)(2) MONITORING SYSTEM CHANGES

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

No new monitoring wells were installed, and no wells were decommissioned as part of the CCR groundwater monitoring program for the Fly Ash Impoundment in 2023.

2.3 § 257.90(E)(3) SUMMARY OF SAMPLING EVENTS

In addition to all the monitoring data obtained under § 257.90 through § 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

Assessment monitoring was conducted during the reporting period (2023). The annual assessment monitoring groundwater samples were collected in February 2023 and analyzed for all Appendix IV assessment monitoring constituents. Samples collected in May and November 2023 were collected and analyzed for Appendix III detection monitoring constituents and previously detected Appendix IV assessment monitoring constituents. Results of the sampling events are provided in **Appendix B, Table 1** (Appendix III Detection Monitoring and Appendix IV Assessment Monitoring Results), and **Table 2** (Groundwater Monitoring Field Measurements). These tables include the Fall 2022 first and second verification sample data collected and analyzed in 2023, the 2023 annual Appendix IV assessment monitoring data (February 2023), the Spring 2023 semi-annual detection and assessment monitoring data (May 2023), additional nature and extent monitoring data (January, March, July, August 2023), and the Fall 2023 semi-annual assessment monitoring data (November 2023). The dates of sample collection and the monitoring program requiring the sample are also provided in these tables.

Results of the sampling events are provided in tables in **Appendix B:**

Table 1 - Appendix III and IV Assessment Monitoring

Table 2 - Assessment Monitoring Field Measurements

Table 3 - Nature and Extent Corrective Measures Monitoring Results

Table 4 - Nature and Extent Corrective Measures Monitoring Field Measurements

The dates of sample collection and the monitoring program requiring the sample are also provided in these tables.

2.4 § 257.90(E)(4) MONITORING TRANSITION NARRATIVE

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and

The Fly Ash Impoundment remained in Assessment Monitoring through 2023 for all constituents except for molybdenum. An Assessment of Corrective Measures (ACM) was conducted in accordance with 40 CFR 257.96 for molybdenum, which continues to be monitored under an assessment monitoring program in accordance with 40 CFR 257.96(b).

2.5 § 257.90(e)(5) OTHER REQUIREMENTS

Other information required to be included in the annual report as specified in § 257.90 through § 257.98.

A summary of potentially required information and the corresponding section of the Rule is provided in the following sections. In addition, the information, if applicable, is provided.

2.5.1 § 257.90(e) Program Status

Status of Groundwater Monitoring and Corrective Action Program.

2023 Groundwater Monitoring and Corrective Action Report

The groundwater monitoring and corrective action program is in Assessment Monitoring. Nature and extent sampling and additional data are being collected to assist with the selection of a remedy.

Summary of Key Actions Completed.

- a. completion of the Fall 2022 verification sampling and analyses per the certified statistical method,
- b. completion of the statistical evaluation of the Fall 2022 semiannual assessment monitoring sampling and analysis event per the certified statistical method,
- c. completion of the 2022 Annual Groundwater Monitoring and Corrective Action Report,
- d. completion of the annual assessment monitoring sampling and analysis event with subsequent verification sampling per the certified statistical method,
- e. completion of March 2023 Semi-Annual Remedy Selection Progress Report,
- f. completion of the Spring 2023 semiannual assessment monitoring sampling and analysis event,
- g. sampling of nature and extent monitoring wells as part of the ACM Selection of Remedy in February, May, August, and November 2023,
- h. completion of September 2023 Semi-Annual Remedy Selection Progress Report,
- i. completion of the statistical evaluation of the Spring 2023 semiannual and annual assessment monitoring sampling and analysis events per the certified statistical method, and
- j. initiation of the Fall 2023 semiannual assessment monitoring sampling and analysis event.

Description of Any Problems Encountered.

No noteworthy problems were encountered.

Discussion of Actions to Resolve the Problems.

Not applicable because no noteworthy problems were encountered.

Projection of Key Activities for the Upcoming Year (2024).

Completion of verification sampling and data analysis (if required), and the statistical evaluation of Fall 2023 assessment monitoring sampling and analysis event. Completion of the 2024 annual assessment monitoring sampling and analysis event. Semiannual Spring and Fall 2024 groundwater sampling and analysis. Completion of the March and September 2024 semi-annual remedy selection progress report. Completion of the statistical evaluation of the Spring 2024 assessment monitoring sampling and analysis event. The continuation of the nature and extent investigation and selection of remedy data collection will continue in 2024. Evergy is also completing additional steps to characterize the nature and extent of molybdenum in groundwater at the Fly Ash Impoundment and working towards selection of a remedy.

2.5.2 § 257.94(d)(3) Demonstration for Alternative Detection Monitoring Frequency

The owner or operator must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not applicable because no alternative monitoring frequency for detection monitoring and certification was pursued.

2.5.3 § 257.94(e)(2) Detection Monitoring Alternate Source Demonstration

Demonstration that a source other than the CCR unit caused the statistically significant increase (SSI) over background levels for a constituent or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. In addition, certification of the demonstration is to be included in the annual report.

The Fly Ash Impoundment is in Assessment Monitoring; therefore, no detection monitoring alternative source demonstration (ASD) or certification is applicable.

2.5.4 § 257.95(c)(3) Demonstration for Alternative Assessment Monitoring Frequency

The owner or operator must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer or the approval from the Participating State Director or the approval from EPA where EPA is the permitting authority in the annual groundwater monitoring and corrective action report required by § 257.90(e).

An alternative groundwater Assessment Monitoring sampling and analysis frequency has not been established; therefore, no demonstration or certification is applicable.

2.5.5 § 257.95(d)(3) Assessment Monitoring Concentrations and Groundwater Protection Standards

Include the concentrations of Appendix III and detected Appendix IV constituents from the assessment monitoring, the established background concentrations, and the established groundwater protection standards.

Appendix III and detected Appendix IV constituents for assessment monitoring are provided in **Table 1** in **Appendix B**. The established groundwater protection standards (GWPSs) as applicable are provided in **Appendix B, Table 5**.

The GWPSs for Appendix IV constituents were set equal to the highest value of the MCL, concentrations specified by 40 CFR 257.95(h)(2), or background concentrations. The background concentrations for each of the Appendix IV constituents were determined following the prediction limit statistical procedures as specified in the “Statistical Method Certification by A Qualified Professional Engineer” dated October 12, 2017. The resulting GWPS for Appendix IV constituents are provided in **Table 5** in **Appendix B** along with the Appendix IV constituent background samples collected over eight sampling events between December 2015 and October 2017.

2.5.6 § 257.95(g)(3)(ii) Assessment Monitoring Alternate Source Demonstration

Demonstrate that a source other than the CCR unit caused the contamination, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Any such demonstration must be supported by a report that includes the factual or evidentiary basis for any conclusions and must be certified to be accurate by a qualified professional engineer. If a successful demonstration is made, the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to this section, and may return to detection monitoring if the constituents in appendices III and IV to this part are at or below background as specified in paragraph (e) of this section. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority.

Not applicable because an Assessment Monitoring ASD was not completed.

2.5.7 § 257.96(a) Demonstration for Additional Time for Assessment of Corrective Measures

Within 90 days of finding that any constituent listed in appendix IV to this part has been detected at a statistically significant level exceeding the groundwater protection standard defined under § 257.95(h), or immediately upon detection of a release from a CCR unit, the owner or operator must initiate an assessment of corrective measures to prevent further releases, to remediate any releases and to restore affected area to original conditions. The assessment of corrective measures must be completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer attesting that the demonstration is accurate. The 90-day deadline to complete the assessment of corrective measures may be extended for no longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority.

No additional time was needed in 2023 for the ACM. On July 15, 2022, Evergy demonstrated the need for additional time beyond the regulatory timeline period of 90 days to complete the ACM. The Demonstration and Certification of Need for 60-Day Extension was provided in the 2022 Annual Groundwater Monitoring and Corrective Action Report. The ACM was completed on September 15, 2022.

2.6 § 257.90(e)(6) OVERVIEW SUMMARY

A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit.

§ 257.90(e)(6) is addressed in Section 1.1 of this report.

3 SUPPLEMENTAL INFORMATION AND DATA

In addition to the requirements listed in 40 CFR 257.90(e), supplemental information has been included in this section in recognition of comments received by Evergy from the USEPA on January 11, 2022. The USEPA indicated in their comments that the GWMCA Report contain the following:

- Results of laboratory analysis of groundwater or other environmental media samples for 40 CFR 257 Appendix III and Appendix IV constituents or other constituents, such as those supporting characterization of site conditions that may ultimately affect a remedy.
- Required statistical analysis performed on laboratory analysis results; and
- Calculated groundwater flow rate and direction.

This information is not specifically referred to in 40 CFR 257.90(e) for inclusion in the GWMCA Reports; however, it is routinely collected, determined, and maintained in Evergy's files and is being provided with in this GWMCA report. This supplemental information and data are provided as specified below:

- **Laboratory Analytical Reports (Appendix D):**

Includes laboratory data packages with supporting information such as case narrative, sample and method summary, analytical results, quality control, and chain-of-custody documentation. The laboratory data packages for the following sampling events are provided:

- January 2023 – Nature and extent monitoring sampling event for ACM selection of remedy.
- February 2023 – Annual assessment monitoring event.
- March 2023 – First verification sampling for annual assessment monitoring event.
- May 2023 – Spring 2023 semiannual assessment monitoring event and nature and extent monitoring sampling event for ACM.
- July 2023 – Nature and extent monitoring sampling event for ACM selection of remedy.
- August 2023 – Nature and extent monitoring sampling event for ACM selection of remedy.
- November 2023 - Fall 2023 semiannual assessment monitoring sampling event and nature and extent monitoring sampling event for ACM.

- **Statistical Analyses (Appendix E):**

Includes summary of statistical results, prediction limit plots, prediction limit background data, detection sample results, first and second verification re-sample results (when applicable), extra sample results for pH (collected as part of the approved sampling

procedures), input parameters, and a Prediction Limit summary table. Statistical analyses completed in 2023 included the following:

- Fall 2022 semiannual assessment monitoring statistical analyses.
- Spring 2023 semiannual and annual assessment monitoring statistical analyses.
- Groundwater Potentiometric Surface Maps (**Appendix A**):
Includes groundwater potentiometric surface maps with the measured groundwater elevations at each well and the generalized groundwater flow direction and the calculated groundwater flow rate. Maps for the following sampling events are provided:
 - **Figure 2** – February 2023 annual assessment monitoring sampling event.
 - **Figure 3** – Spring 2023 semiannual assessment monitoring sampling event.
 - **Figure 4** – Fall 2023 semiannual assessment monitoring sampling event.

4 GENERAL COMMENTS

This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. The information contained in this report is a reflection of the conditions encountered at the Sibley Generating Station at the time of fieldwork. This report includes a review and compilation of the required information and does not reflect any variations of the subsurface, which may occur between sampling locations. Actual subsurface conditions may vary and the extent of such variations may not become evident without further investigation.

Conclusions drawn by others from the result of this work should recognize the limitation of the methods used. Please note that SCS Engineers does not warrant the work of regulatory agencies or other third parties supplying information used in the assimilation of this report. This report is prepared in accordance with generally accepted environmental engineering and geological practices, within the constraints of the client's directives. It is intended for the exclusive use of Evergy Missouri West, Inc. for specific application to the Sibley Generating Station Fly Ash Impoundment. No warranties, express or implied, are intended or made.

APPENDIX A

FIGURES

Figure 1: Site Map

Figure 2: Potentiometric Surface Map (February 2023)

Figure 3: Potentiometric Surface Map (May 2023)

Figure 4: Potentiometric Surface Map (November 2023)

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- LEGEND:**
- 806R GROUNDWATER MONITORING SYSTEM
 - 809 NATURE AND EXTENT WELLS
 - CCR FLY ASH IMPOUNDMENT UNIT BOUNDARY

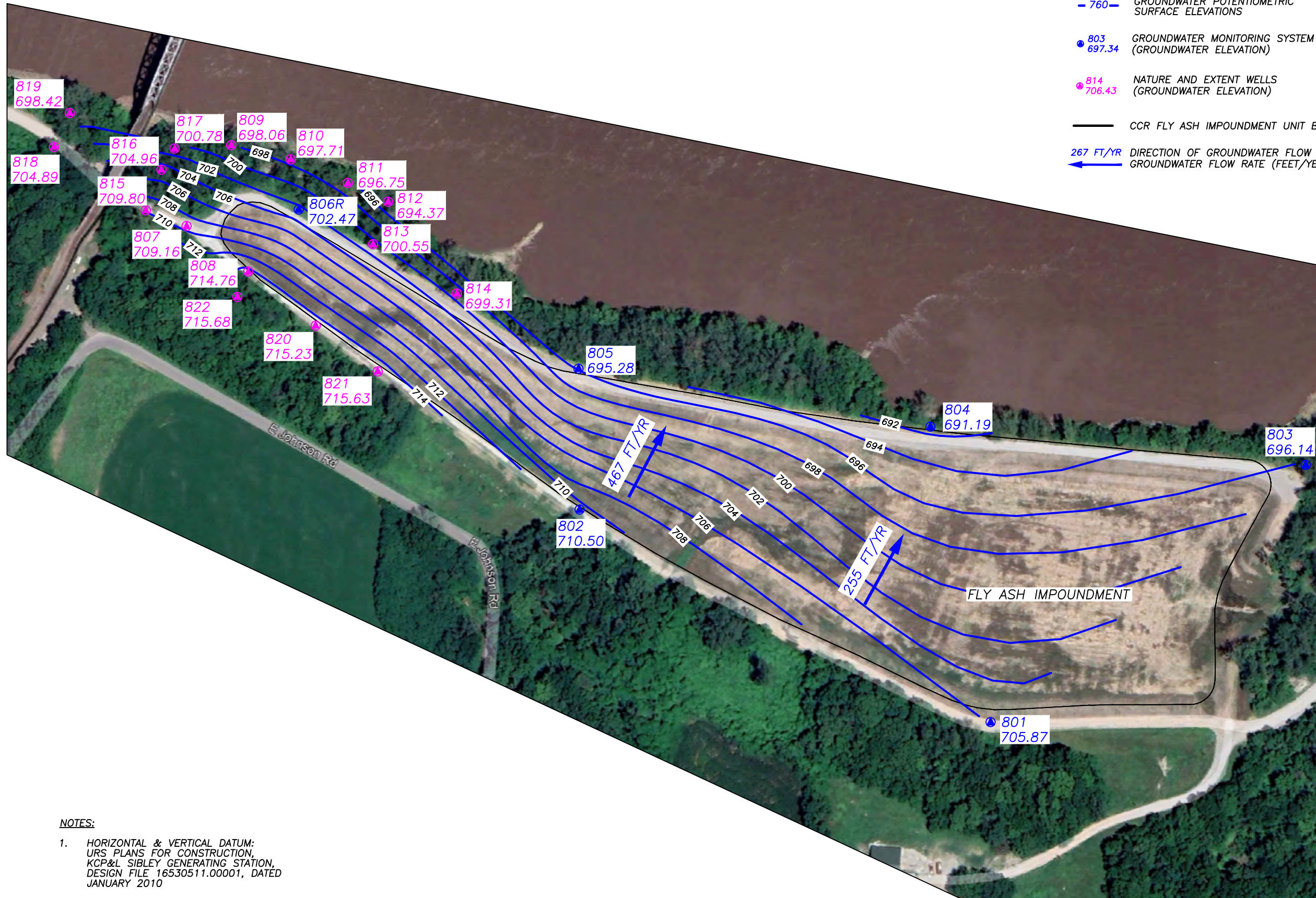
NOTES:

1. HORIZONTAL & VERTICAL DATUM:
URS PLANS FOR CONSTRUCTION,
KCP&L SIBLEY GENERATING STATION,
DESIGN FILE 16530511.00001, DATED
JANUARY 2010
2. GOOGLE EARTH IMAGE DATED MAY 2023.
3. BOUNDARY AND MONITORING WELL
LOCATIONS SHOWN ARE APPROXIMATE.



REV.	DATE
SHEET TITLE SITE MAP FLY ASH IMPOUNDMENT CCR MONITORING SYSTEM	
PROJECT TITLE 2023 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT	
CLIENT EVERGY MISSOURI WEST, INC. SIBLEY GENERATING STATION SIBLEY, MISSOURI	
SCS ENGINEERS 8875 W. 110th St. Ste. 100 Overland Park, Kansas 66210 PH: (913) 681-0030 FAX: (913) 681-0012 PROJ. NO. 27213169.20 DESK BY: ALR CHK. BY: JRF Q/A RW BY: JRF PROJ. MGR. JRF	
CADD FILE: SIBLEY FLY ASH GW NOVEMBER 2023 V0.2.DWG	
DATE: 1/16/24	
FIGURE NO. 1	

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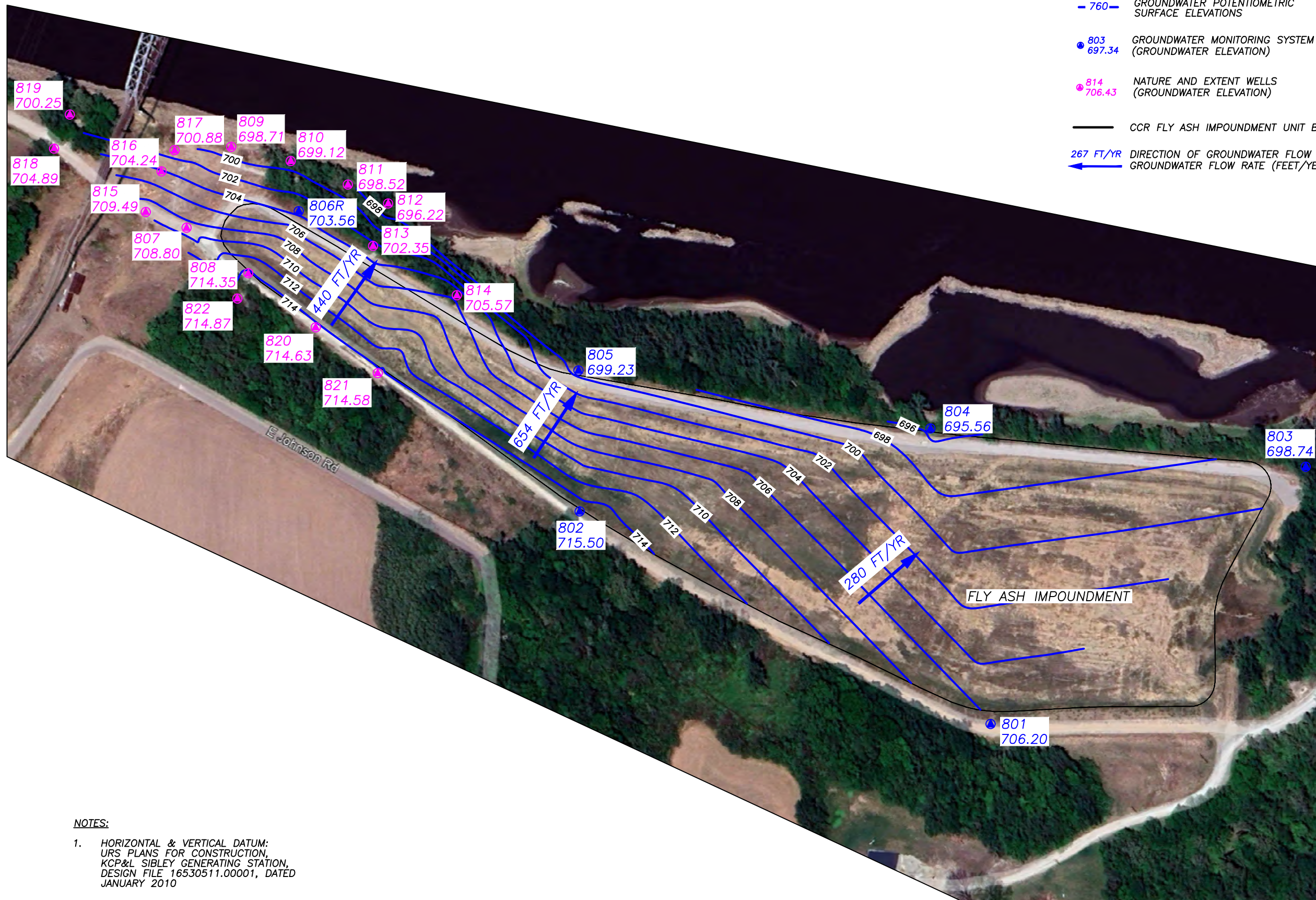
- LEGEND:**
- 760 — GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS
 - 803 697.34 GROUNDWATER MONITORING SYSTEM WELL (GROUNDWATER ELEVATION)
 - 814 706.43 NATURE AND EXTENT WELLS (GROUNDWATER ELEVATION)
 - CCR FLY ASH IMPOUNDMENT UNIT BOUNDARY
 - ← 267 FT/YR DIRECTION OF GROUNDWATER FLOW AND CALCULATED GROUNDWATER FLOW RATE (FEET/YEAR)

NOTES:

1. HORIZONTAL & VERTICAL DATUM:
URS PLANS FOR CONSTRUCTION,
KCP&L SIBLEY GENERATING STATION,
DESIGN FILE 16530511.00001, DATED
JANUARY 2010
2. GOOGLE EARTH IMAGE DATED JULY 2022.
3. BOUNDARY AND MONITORING WELL
LOCATIONS SHOWN ARE APPROXIMATE.
4. WATER LEVEL MEASUREMENTS COMPLETED
ON FEBRUARY 13, 2023.

	REV.	DATE			
SHEET TITLE		POTENTIOMETRIC SURFACE MAP (FEBRUARY 2023) FLY ASH IMPOUNDMENT			
PROJECT TITLE		2023 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT			
CLIENT					
EVERGY MISSOURI WEST, INC. SIBLEY GENERATING STATION SIBLEY, MISSOURI					
ENGINEER					
SCS ENGINEERS 8875 W. 110th St., Ste. 100 Overland Park, Kansas 66210 PH: (913) 681-0030 FAX: (913) 681-0012					
DESIGN NO. 27713169.20	DATE 5/16/2023	DRAWN BY CDG	CHECKED BY JRF	DATE 5/16/2023	PROJECT NO. JRF
CADD FILE: SIBLEY POTENTIOMETRIC MAP FEBRUARY 2023.dwg					
DATE: 5/16/2023					
FIGURE NO. 2					

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- LEGEND:**
- 760 — GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS
 - 803 697.34 GROUNDWATER MONITORING SYSTEM WELL (GROUNDWATER ELEVATION)
 - 814 706.43 NATURE AND EXTENT WELLS (GROUNDWATER ELEVATION)
 - CCR FLY ASH IMPOUNDMENT UNIT BOUNDARY
 - ← 267 FT/YR DIRECTION OF GROUNDWATER FLOW AND CALCULATED GROUNDWATER FLOW RATE (FEET/YEAR)

NOTES:

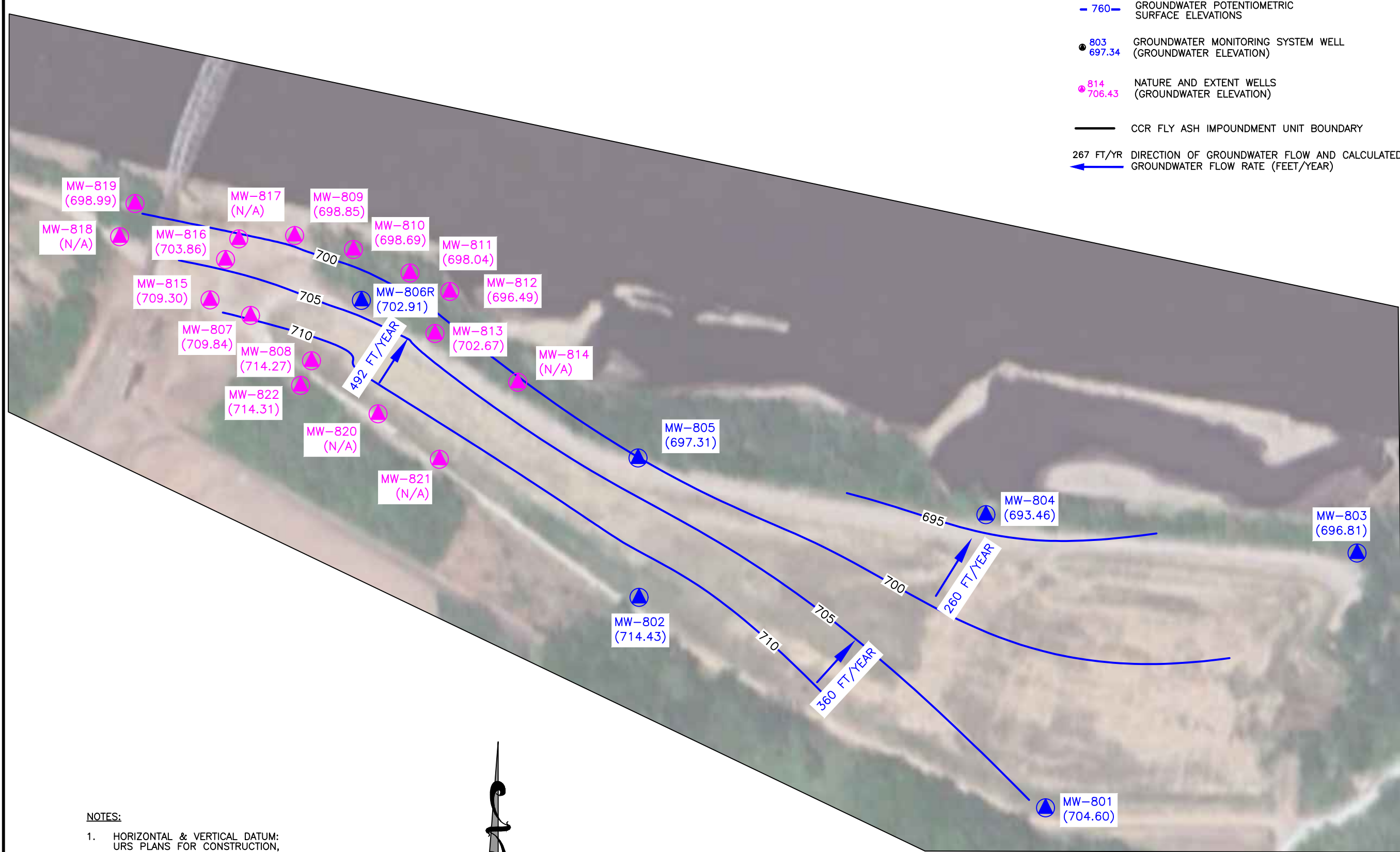
1. HORIZONTAL & VERTICAL DATUM:
URS PLANS FOR CONSTRUCTION,
KCP&L SIBLEY GENERATING STATION,
DESIGN FILE 16530511.00001, DATED
JANUARY 2010
2. GOOGLE EARTH IMAGE DATED MAY 2023.
3. BOUNDARY AND MONITORING WELL
LOCATIONS SHOWN ARE APPROXIMATE.
4. WATER LEVEL MEASUREMENTS COMPLETED
ON MAY 18 & 22, 2023.



	REV.	DATE			
SHEET TITLE		POTENTIOMETRIC SURFACE MAP			
		MAY 2023			
PROJECT TITLE		FLY ASH IMPOUNDMENT			
		2023 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT			
CLIENT					
EVERGY MISSOURI WEST, INC. SIBLEY GENERATING STATION SIBLEY, MISSOURI					
SCS ENGINEERS					
8875 W. 110th St. Ste. 100 Overland Park, Kansas 66210 PH: (913) 681-0030 FAX: (913) 681-0012					
PROJ. NO. 27713169.20	DWN. BY: SJM	CHK. BY: JRF	O/A RW BY: JRF	PROJ. MGR. JRF	
CADD FILE: SIBLEY POTENTIOMETRIC MAP MAY 2023.DWG					
DATE: 9/26/23					
FIGURE NO. 3					

T:\2721 3169.23\AutoCAD\Sibley fly Ash GW November 2023.dwg Jan 22, 2024 - 9:22am Layout Name: 3 By: soh

- LEGEND:**
- 760 — GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS
 - 803 697.34 GROUNDWATER MONITORING SYSTEM WELL (GROUNDWATER ELEVATION)
 - 814 706.43 NATURE AND EXTENT WELLS (GROUNDWATER ELEVATION)
 - CCR FLY ASH IMPOUNDMENT UNIT BOUNDARY
 - ← 267 FT/YR DIRECTION OF GROUNDWATER FLOW AND CALCULATED GROUNDWATER FLOW RATE (FEET/YEAR)



- NOTES:**
1. HORIZONTAL & VERTICAL DATUM:
URS PLANS FOR CONSTRUCTION,
KCP&L SIBLEY GENERATING STATION,
DESIGN FILE 16530511.00001, DATED
JANUARY 2010
 2. GOOGLE EARTH IMAGE DATED MAY 2023.
 3. BOUNDARY AND MONITORING WELL
LOCATIONS SHOWN ARE APPROXIMATE.
 4. WATER LEVEL MEASUREMENTS COMPLETED
ON NOVEMBER 15 & 16, 2023.



REV.	DATE
SHEET TITLE	
POTENTIOMETRIC SURFACE MAP (NOVEMBER 2023) FLY ASH IMPOUNDMENT	
PROJECT TITLE	
2023 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT	
CLIENT	
EVERGY MISSOURI WEST, INC. SIBLEY GENERATING STATION SIBLEY, MISSOURI	
SCS ENGINEERS	
8875 W. 110th St. Ste. 100 Overland Park, Kansas 66210 PH: (913) 681-0030 FAX: (913) 681-0012	
DESIGNER: MBJ	QA/RV: JRR
DRAWN BY: TGW	PROJ. MGR: JRR
CADD FILE: SIBLEY FLY ASH GW NOVEMBER 2023.DWG	
DATE: 1/16/24	
FIGURE NO. 4	

APPENDIX B

TABLES

Table 1 - Appendix III and IV Assessment Monitoring Results

Table 2 - Assessment Monitoring Field Measurements

Table 3 - Nature and Extent Corrective Measures Monitoring Results

Table 4 - Nature and Extent Corrective Measures Monitoring Field Measurements

Table 5 - Appendix IV Background Data and Groundwater Protection Standards

Table 1
Fly Ash Impoundment
Appendix III and Appendix IV Assessment Monitoring Results
Evergy Sibley Generating Station

Well Number	Sample Date	Appendix III Constituents							Appendix IV Constituents														
		Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	pH (S.U.)	Sulfate (mg/L)	Dissolved Solids (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Selenium (mg/L)	Thallium (mg/L)	Radium Combined (pCi/L)
MW-801	2/13/2023	<0.200	124	119	0.166	6.95	43.5	565	<0.00400	<0.00200	0.149	<0.00200	<0.00100	<0.0100	<0.00200	0.166	<0.00200	0.0153	<0.000200	<0.00500	0.00241	<0.00200	0.683
MW-801	5/18/2023	<0.200	115	104	0.170	7.10	40.6	553	---	<0.00200	0.137	---	<0.00100	0.0150	<0.00200	0.170	<0.00200	<0.0150	<0.000200	<0.00500	0.00221	---	0.243 (J)
MW-801	11/15/2023	<0.200	114	85.2	0.154	7.18	37.2	480	---	<0.00200	0.122	---	<0.00100	<0.0100	<0.00200	0.154	<0.00200	<0.0150	<0.000200	<0.00500	0.00263	---	0.373 (J)
MW-802	2/13/2023	<0.200	53.4	44.5	0.153	6.29	51.9	288	<0.00400	0.00202	0.144	<0.00200	<0.00100	<0.0100	<0.00200	0.153	<0.00200	<0.0150	<0.000200	<0.00500	0.00248	<0.00200	0.952
MW-802	5/18/2023	<0.200	67.1	44.8	0.160	6.59	57.6	351	---	<0.00200	0.178	---	<0.00100	<0.0100	<0.00200	0.160	<0.00200	<0.0150	<0.000200	<0.00500	0.00353	---	1.03
MW-802	11/15/2023	<0.200	43.2	38.0	<0.150	6.65	41.8	271 (H)	---	0.00238	0.185	---	<0.00100	<0.0100	<0.00200	<0.150	<0.00200	<0.0150	<0.000200	<0.00500	0.00245	---	0.804 (J)
MW-803	2/13/2023	2.99	110	21.8	0.294	6.54	93.4	457	<0.00400	0.00246	0.119	<0.00200	<0.00100	<0.0100	<0.00200	0.294	<0.00200	0.0182	<0.000200	<0.00500	<0.00200	<0.00200	0.951
MW-803	5/18/2023	2.96	109	22.6	0.293	7.18	103	489	---	0.00263	0.126	---	<0.00100	<0.0100	<0.00200	0.293	<0.00200	<0.0150	<0.000200	<0.00500	<0.00200	---	0.495 (J)
MW-803	11/15/2023	2.93	115	24.2	0.260	7.37	106	479 (H)	---	0.00239	0.123	---	<0.00100	<0.0100	<0.00200	0.260	<0.00200	0.0158	<0.000200	<0.00500	<0.00200	---	0.460 (J)
MW-804	2/13/2023	11.9	169	21.7	0.260	6.47	<5.00	667	<0.00400	0.0101	0.532	<0.00200	<0.00100	<0.0100	<0.00200	0.260	<0.00200	0.0246	<0.000200	<0.00500	<0.00200	<0.00200	1.83
MW-804	3/13/2023	---	---	---	---	**6.99	---	---	---	*0.00297	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-804	5/18/2023	7.06	150	20.3	0.247	7.07	35.3	621	---	0.00269	0.518	---	<0.00100	<0.0100	<0.00200	0.247	<0.00200	0.0234	<0.000200	<0.00500	<0.00200	---	2.04
MW-804	11/15/2023	5.95	139	15.9	0.233	7.26	<5.00	540 (H)	---	<0.00200	0.411	---	<0.00100	<0.0100	<0.00200	0.233	<0.00200	0.0220	<0.000200	<0.00500	<0.00200	---	0.645
MW-805	2/13/2023	<0.200	89.4	7.04	0.192	6.94	42.9	336	<0.00400	<0.00200	0.145	<0.00200	<0.00100	<0.0100	<0.00200	0.192	<0.00200	<0.0150	<0.000200	<0.00500	<0.00200	<0.00200	0.489
MW-805	5/18/2023	<0.200	89.4	7.13	0.197	7.20	44.0	323	---	<0.00200	0.148	---	<0.00100	<0.0100	<0.00200	0.197	<0.00200	<0.0150	<0.000200	<0.00500	<0.00200	---	1.01
MW-805	11/15/2023	<0.200	92.2	7.02	0.179	7.43	41.7	320 (H)	---	<0.00200	0.142	---	<0.00100	<0.0100	<0.00200	0.179	<0.00200	<0.0150	<0.000200	<0.00500	<0.00200	---	1.03
MW-806R	1/11/2023	---	---	---	---	**7.58	---	---	---	---	---	---	---	---	---	---	---	---	---	*1.43	---	---	---
MW-806R	2/13/2023	3.60	161	30.1	0.207	6.28	274	739	<0.00400	0.00532	0.0807	<0.00200	<0.00100	<0.0100	<0.00200	0.207	<0.00200	0.0154	<0.000200	1.39	<0.00200	<0.00200	1.97
MW-806R	3/13/2023	---	---	---	---	**7.30	---	---	---	---	---	---	---	---	---	---	---	---	---	*1.17	---	---	---
MW-806R	5/18/2023	3.14	164	29.4	0.208	7.34	291	728	---	0.00359	0.0692	---	<0.00100	<0.0100	<0.00200	0.208	<0.00200	0.0199	<0.000200	1.21	<0.00200	---	1.15
MW-806R	7/7/2023	---	---	---	---	**7.03	---	---	---	---	---	---	---	---	---	---	---	---	---	*1.33	---	---	---
MW-806R	8/17/2023	---	---	---	---	**7.05	---	---	---	---	---	---	---	---	---	---	---	---	---	*1.46/*1.32	---	---	---
MW-806R	11/15/2023	3.60	161	30.4	0.182	7.23	258	689	---	<0.00200	0.0788	---	<0.00100	<0.0100	<0.00200	0.182	<0.00200	0.0190	<0.000200	1.64	<0.00200	---	0.616

* Verification Sample obtained per certified statistical method and Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009. Or additional Nature and Extent Samples.

**Extra Sample for Quality Control Validation or per Standard Sampling Procedure

mg/L - milligrams per liter

pCi/L - picocuries per liter

S.U. - Standard Units

--- Not Sampled

(B) - Based on the Stage II data quality review the sample result is potentially biased high due to analyte detection in the associated sample blank.

(M) - Method Detection Limit (MDL)

(J) - Reported concentration is below the laboratory reported detection limit (RDL), however is above the MDL and is estimated.

(H) - Based on the Stage II data quality review the sample result is potentially biased low due to analyte analysis outside of method hold time.

Table 2
Fly Ash Impoundment
Assessment Monitoring Field Measurements
Evergry Sibley Generating Station

Well Number	Sample Date	pH (S.U.)	Specific Conductivity (µS)	Temperature (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Water Level (ft btoc)	Groundwater Elevation (ft NGVD)
MW-801	2/13/2023	6.95	1500	12.83	43.2	281	2.95	22.22	705.87
MW-801	5/18/2023	7.10	765	16.70	17.3	156	4.96	21.89	706.20
MW-801	11/15/2023	7.18	771	15.38	15.0	169	5.35	23.49	704.60
MW-802	2/13/2023	6.29	773	11.29	49.4	380	1.27	20.19	710.50
MW-802	5/18/2023	6.59	464	20.04	46.2	175	4.15	15.19	715.50
MW-802	11/15/2023	6.65	409	14.80	105	194	4.79	16.26	714.43
MW-803	2/13/2023	6.54	817	14.43	0.0	-137	0.70	28.00	696.14
MW-803	5/18/2023	7.18	367	18.89	40.7	-17	0.84	25.40	698.74
MW-803	11/15/2023	7.37	752	16.18	10.1	-121	5.99	27.33	696.81
MW-804	2/13/2023	6.47	126	15.55	52.4	146	0.03	33.15	691.19
MW-804	3/13/2023	**6.99	1020	13.04	58.2	-151	0.71	31.98	692.36
MW-804	5/18/2023	7.07	397	19.57	103	-70	2.73	28.78	695.56
MW-804	11/15/2023	7.26	939	16.12	13.0	-130	2.76	30.88	693.46
MW-805	2/13/2023	6.94	567	15.59	0.0	-87	0.00	27.97	695.28
MW-805	5/18/2023	7.20	523	19.02	51.2	117	0.21	24.02	699.23
MW-805	11/15/2023	7.43	513	18.84	0.0	-83	6.67	25.94	697.31
MW-806R	1/11/2023	**7.58	1060	15.04	4.3	-70	0.00	25.21	702.16
MW-806R	2/13/2023	6.28	1640	14.65	15.5	33	0.00	24.90	702.47
MW-806R	3/13/2023	**7.30	1040	12.39	46.3	-145	0.00	23.88	703.49
MW-806R	5/18/2023	7.34	976	15.75	48.0	-105	3.04	23.81	703.56
MW-806R	7/7/2023	**7.03	953	16.04	16.7	-107	1.02	24.31	703.06
MW-806R	8/17/2023	**7.05	889	20.22	72.6	-121	1.17	22.14	705.23
MW-806R	11/15/2023	7.23	942	16.85	15.9	-75	1.46	24.46	702.91

**Extra Sample for Quality Control Validation or per Standard Sampling Procedure

S.U. - Standard Units

µS - microsiemens

°C - Degrees Celsius

ft btoc - Feet Below Top of Casing

ft NGVD - National Geodetic Vertical Datum (NAVD 88)

NTU - Nephelometric Turbidity Unit

Table 3
Fly Ash Impoundment
Nature and Extend Corrective Measures Monitoring Results
Evergy Sibley Generating Station

Well Number	Sample Date	Appendix III Constituents							Appendix IV Constituents														
		Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	pH (S.U.)	Sulfate (mg/L)	Dissolved Solids (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Selenium (mg/L)	Thallium (mg/L)	Radium Combined (pCi/L)
MW-807	2/13/2023	---	---	---	---	6.46	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00527	---	---	---
MW-807	5/22/2023	---	---	---	---	7.83	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00543	---	---	---
MW-807	8/18/2023	---	---	---	---	7.38	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00666	---	---	---
MW-807	11/16/2023	---	---	---	---	8.04	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-808	2/13/2023	---	---	---	---	8.81	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-808	5/22/2023	---	---	---	---	7.36	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-808	8/18/2023	---	---	---	---	7.06	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-808	11/16/2023	---	---	---	---	8.18	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-809	2/13/2023	---	---	---	---	6.77	---	---	---	---	---	---	---	---	---	---	---	---	---	0.449	---	---	---
MW-809	5/22/2023	---	---	---	---	6.91	---	---	---	---	---	---	---	---	---	---	---	---	---	0.445	---	---	---
MW-809	8/17/2023	---	---	---	---	7.07	---	---	---	---	---	---	---	---	---	---	---	---	---	0.335	---	---	---
MW-809	11/16/2023	---	---	---	---	7.56	---	---	---	---	---	---	---	---	---	---	---	---	---	0.296	---	---	---
MW-810	2/13/2023	---	---	---	---	6.86	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0485	---	---	---
MW-810	5/22/2023	---	---	---	---	7.38	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0869	---	---	---
MW-810	8/17/2023	---	---	---	---	7.09	---	---	---	---	---	---	---	---	---	---	---	---	---	0.147	---	---	---
MW-810	11/16/2023	---	---	---	---	7.57	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0620	---	---	---
MW-811	2/13/2023	---	---	---	---	6.59	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0155	---	---	---
MW-811	5/22/2023	---	---	---	---	7.00	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0171	---	---	---
MW-811	8/17/2023	---	---	---	---	7.05	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0155	---	---	---
MW-811	11/16/2023	---	---	---	---	7.51	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0226	---	---	---
MW-812	2/13/2023	---	---	---	---	7.42	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-812	5/22/2023	---	---	---	---	6.76	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-812	8/17/2023	---	---	---	---	6.86	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-812	11/16/2023	---	---	---	---	7.32	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-813	2/13/2023	---	---	---	---	6.07	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-813	5/22/2023	---	---	---	---	7.14	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-813	8/17/2023	---	---	---	---	7.17	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00796	---	---	---
MW-813	11/16/2023	---	---	---	---	7.49	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-814	2/13/2023	---	---	---	---	7.08	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00583	---	---	---
MW-814	5/22/2023	---	---	---	---	7.27	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0116	---	---	---
MW-815	5/22/2023	---	---	---	---	7.42	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-815	8/18/2023	---	---	---	---	7.09	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-815	11/16/2023	---	---	---	---	7.47	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-816	2/13/2023	---	---	---	---	7.42	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-816	5/22/2023	---	---	---	---	7.01	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-816	8/18/2023	---	---	---	---	7.22	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-816	11/16/2023	---	---	---	---	7.39	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-817	2/13/2023	---	---	---	---	7.36	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00736	---	---	---
MW-817	5/22/2023	---	---	---	---	7.38	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-818	2/13/2023	---	---	---	---	NA	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-818	5/18/2023	---	---	---	---	NA	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-819	2/13/2023	---	---	---	---	7.24	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-819	5/18/2023	---	---	---	---	7.54	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-819	8/17/2023	---	---	---	---	6.87	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-819	11/16/2023	---	---	---	---	7.29	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-820	2/13/2023	---	---	---	---	7.76	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-820	5/22/2023	---	---	---	---	7.41	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-821	2/13/2023	---	---	---	---	6.80	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-821	5/22/2023	---	---	---	---	6.89	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-822	2/13/2023	---	---	---	---	7.59	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-822	5/22/2023	---	---	---	---	7.25	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-822	8/18/2023	---	---	---	---	7.15	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00573	---	---	---
MW-822	11/16/2023	---	---	---	---	7.38	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---

mg/L - miligrams per liter
pCi/L - picocuries per liter
S.U. - Standard Units
--- Not Sampled

Table 4
Fly Ash Impoundment
Nature and Extend Corrective Measures Monitoring Field Measurements
Evergy Sibley Generating Station

Well Number	Sample Date	pH (S.U.)	Specific Conductivity (µS)	Temperature (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Water Level (ft btoc)	Groundwater Elevation (ft NGVD)
MW-807	2/13/2023	6.46	823	13.75	138	41	0.00	20.98	709.16
MW-807	5/22/2023	7.83	499	19.92	491	63	4.40	21.29	708.85
MW-807	8/18/2023	7.38	494	25.19	100	27	0.06	20.35	709.79
MW-807	11/16/2023	8.04	556	15.93	93.8	155	0.00	20.30	709.84
MW-808	2/13/2023	8.81	1260	12.59	64.8	125	2.43	14.80	714.76
MW-808	5/22/2023	7.36	790	17.12	158	70	0.41	15.21	714.35
MW-808	8/18/2023	7.06	729	19.87	36.8	-9	0.00	14.56	715.00
MW-808	11/16/2023	8.18	752	15.41	140	167	0.00	15.19	714.37
MW-809	2/13/2023	6.77	871	15.17	588	-102	0.10	17.89	698.06
MW-809	5/22/2023	6.91	861	21.87	521	-105	0.59	17.24	698.71
MW-809	8/17/2023	7.07	733	25.87	>1000	-167	6.48	16.78	699.17
MW-809	11/16/2023	7.56	794	16.99	98.0	-110	0.99	17.10	698.85
MW-810	2/13/2023	6.86	878	14.01	424	149	0.00	18.08	697.71
MW-810	5/22/2023	7.38	822	20.08	26.5	91	3.38	16.67	699.12
MW-810	8/17/2023	7.09	762	22.16	24.7	-23	7.13	16.72	699.07
MW-810	11/16/2023	7.57	755	17.59	47.9	-155	2.85	17.10	698.69
MW-811	2/13/2023	6.59	1900	12.06	520	-157	0.04	18.80	696.75
MW-811	5/22/2023	7.00	826	21.68	60.8	105	1.69	17.03	698.52
MW-811	8/17/2023	7.05	736	20.17	63.0	4	0.35	17.24	698.31
MW-811	11/16/2023	7.51	796	17.43	44.4	34	2.39	17.51	698.04
MW-812	2/13/2023	7.42	1840	10.98	146	-139	3.18	20.50	694.37
MW-812	5/22/2023	6.76	1710	22.54	408	-105	0.69	18.65	696.22
MW-812	8/17/2023	6.86	1560	20.41	>1000	-147	0.00	18.00	696.87
MW-812	11/16/2023	7.32	1480	15.69	>1000	-160	0.09	18.38	696.49
MW-813	2/13/2023	6.07	1310	17.47	808	-43	0.00	22.12	700.55
MW-813	5/22/2023	7.14	818	22.96	843	-147	0.00	20.32	702.35
MW-813	8/17/2023	7.17	720	24.26	397	-167	0.47	19.89	702.78
MW-813	11/16/2023	7.49	761	16.72	170	-146	0.01	20.00	702.67
MW-814	2/13/2023	7.08	955	18.06	630	234	0.11	22.44	699.31
MW-814	5/22/2023	7.27	752	25.00	5.9	-8	3.59	16.18	705.57
MW-815	2/13/2023	7.56	499	13.80	16.6	156	0.99	19.00	709.80
MW-815	5/22/2023	7.42	488	20.86	197	38	2.82	19.31	709.49
MW-815	8/18/2023	7.09	443	21.74	32.7	26	3.36	18.96	709.84
MW-815	11/16/2023	7.47	454	15.62	36.8	194	2.42	19.50	709.30
MW-816	2/13/2023	7.42	575	15.40	45.6	-149	1.35	11.39	704.96
MW-816	5/22/2023	7.01	583	16.70	862	-152	0.46	12.11	704.24
MW-816	8/18/2023	7.22	538	22.27	273	-208	0.13	11.56	704.79
MW-816	11/16/2023	7.39	618	16.04	172	-133	5.09	12.49	703.86
MW-817	2/13/2023	7.36	612	13.25	35.6	-69	1.10	16.20	700.78
MW-817	5/22/2023	7.38	631	13.47	>1000	-166	1.59	16.10	700.88
MW-818	2/13/2023	NA	NA	NA	NA	NA	NA	DRY	NA
MW-818	5/18/2023	NA	NA	NA	NA	NA	NA	DRY	NA
MW-819	2/13/2023	7.24	910	11.90	9.6	172	1.02	18.68	698.42
MW-819	5/18/2023	7.54	710	13.46	48.0	75	2.69	16.85	700.25
MW-819	8/17/2023	6.87	795	15.50	>1000	80	3.78	17.17	699.93
MW-819	11/16/2023	7.29	975	14.40	>1000	68	4.64	18.11	698.99
MW-820	2/13/2023	7.76	1040	12.21	80.0	214	2.05	12.36	715.23
MW-820	5/22/2023	7.41	635	22.09	144	72	0.61	12.96	714.63
MW-821	2/13/2023	6.80	501	11.74	79.4	138	2.90	12.89	715.63
MW-821	5/22/2023	6.89	464	18.15	128	139	6.02	13.94	714.58
MW-822	2/13/2023	7.59	619	12.20	4.8	130	1.04	11.15	715.68
MW-822	5/22/2023	7.25	558	16.27	135	125	0.66	11.96	714.87
MW-822	8/18/2023	7.15	524	16.97	105	-14	0.26	12.11	714.72
MW-822	11/16/2023	7.38	258	15.90	49.6	215	0.00	12.52	714.31

S.U. - Standard Units

µS - microsiemens

°C - Degrees Celsius

ft btoc - Feet Below Top of Casing

ft NGVD - National Geodetic Vertical Datum (NAVD 88)

NTU - Nephelometric Turbidity Unit

Table 5
Fly Ash Impoundment
Appendix IV Background Data and Groundwater Protection Standards
Evergy Sibley Generating Station

Well Number	Sample Date	Appendix IV Constituents														
		Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Selenium (mg/L)	Thallium (mg/L)	Radium Combined (pCi/L)
MCL GWPS		0.006	0.010	2	0.004	0.005	0.1	NA	4.0	0.015*	NA	0.002	NA	0.002	5	
40 CFR 257.95(h) GWPS		NA	NA	NA	NA	NA	NA	0.006	NA	NA	0.040	NA	0.100	NA	NA	
MW-801	12/16/2015	<0.002	<0.002	0.146	<0.002	<0.001	<0.01	<0.01	0.182	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.848
MW-801	2/17/2016	<0.002	<0.002	0.112	<0.002	<0.001	<0.01	<0.01	0.165	<0.002	0.0182	<0.0002	<0.005	<0.002	<0.002	0.028
MW-801	5/26/2016	<0.002	<0.002	0.110	<0.002	<0.001	<0.01	<0.01	0.149	<0.002	0.0274	<0.0002	<0.005	<0.002	<0.002	1.658
MW-801	8/23/2016	<0.002	<0.002	0.103	<0.002	<0.001	<0.01	<0.01	0.159	<0.002	0.0154	<0.0002	<0.005	0.00224	<0.002	0.146
MW-801	11/10/2016	<0.002	<0.002	0.114	<0.002	<0.001	<0.01	<0.01	0.182	<0.002	0.0153	<0.0002	<0.005	0.00218	<0.002	0.251
MW-801	2/9/2017	<0.002	<0.002	0.110	<0.002	<0.001	<0.01	<0.01	0.117	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.170
MW-801	5/3/2017	<0.002	<0.002	0.124	<0.002	<0.001	<0.01	<0.01	0.150	<0.002	0.0159	<0.0002	<0.005	<0.002	<0.002	0.582
MW-801	8/1/2017	<0.002	<0.002	0.111	<0.002	<0.001	<0.01	<0.01	0.174	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.681
MW-801	10/4/2017	<0.002	<0.002	0.127	<0.002	<0.001	<0.01	<0.01	0.104	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	1.22
MW-801 PL/BG		0.002	0.002	0.146	0.002	0.001	0.01	0.01	0.2137	0.002	0.03301	0.0002	0.005	0.00224	0.002	3.569
MW-801 GWPS		0.006	0.010	2	0.004	0.005	0.1	0.006	4.0	0.015	0.040	0.002	0.100	0.05	0.002	5
MW-802	12/16/2015	<0.002	0.00304	0.232	<0.002	<0.001	<0.01	<0.01	0.268	0.0026	<0.015	<0.0002	<0.005	<0.002	<0.002	2.334
MW-802	2/17/2016	<0.002	0.00223	0.170	<0.002	<0.001	<0.01	<0.01	0.233	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	1.075
MW-802	5/26/2016	<0.002	0.00200	0.123	<0.002	<0.001	<0.01	<0.01	0.222	<0.002	0.0168	<0.0002	<0.005	<0.002	<0.002	4.222
MW-802	8/23/2016	<0.002	0.00257	0.172	<0.002	<0.001	<0.01	<0.01	0.202	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.287
MW-802	11/10/2016	<0.002	0.00262	0.133	<0.002	<0.001	<0.01	<0.01	0.183	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.144
MW-802	2/9/2017	<0.002	0.00200	0.198	<0.002	<0.001	<0.01	<0.01	0.113	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	2.23
MW-802	5/3/2017	<0.002	0.00823	0.304	<0.002	<0.001	<0.01	<0.01	0.173	0.0042	<0.015	<0.0002	<0.005	<0.002	<0.002	1.48
MW-802	8/1/2017	<0.002	0.00206	0.162	<0.002	<0.001	<0.01	<0.01	0.174	<0.002	<0.015	<0.0002	<0.005	0.00237	<0.002	0.650
MW-802	10/4/2017	<0.002	<0.002	0.154	<0.002	<0.001	<0.01	<0.01	<0.1	<0.002	<0.015	<0.0002	<0.005	0.00266	<0.002	0.066
MW-802 PL/BG		0.002	0.007646	0.3056	0.002	0.001	0.01	0.01	0.3234	0.0042	0.0168	0.0002	0.005	0.00266	0.002	3.569
MW-802 GWPS		0.006	0.010	2	0.004	0.005	0.1	0.006	4.0	0.015	0.040	0.002	0.100	0.05	0.002	5
MW-803	12/15/2015	<0.002	0.00493	0.150	<0.002	<0.001	<0.01	<0.01	0.276	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	1.11
MW-803	2/17/2016	<0.002	0.00401	0.141	<0.002	<0.001	<0.01	<0.01	0.245	<0.002	0.0197	<0.0002	<0.005	<0.002	<0.002	0.389
MW-803	5/26/2016	<0.002	0.00365	0.131	<0.002	<0.001	<0.01	<0.01	0.290	<0.002	0.0246	<0.0002	<0.005	<0.002	<0.002	0.441
MW-803	8/23/2016	<0.002	0.00296	0.129	<0.002	<0.001	<0.01	<0.01	0.295	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.741
MW-803	11/10/2016	<0.002	0.00336	0.137	<0.002	<0.001	<0.01	<0.01	0.290	0.00385	<0.015	<0.0002	<0.005	<0.002	<0.002	0.817
MW-803	2/9/2017	<0.002	0.00282	0.126	<0.002	<0.001	<0.01	<0.01	0.262	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.717
MW-803	5/3/2017	<0.002	0.00292	0.129	<0.002	<0.001	<0.01	<0.01	0.254	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.000
MW-803	8/1/2017	<0.002	0.00257	0.125	<0.002	<0.001	<0.01	<0.01	0.281	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	1.73
MW-803	10/4/2017	<0.002	0.00270	0.131	<0.002	<0.001	<0.01	<0.01	0.230	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.826
MW-803 PL/BG		0.002	0.004999	0.1509	0.002	0.001	0.01	0.01	0.319	0.00385	0.0246	0.0002	0.005	0.002	0.002	3.569
MW-803 GWPS		0.006	0.010	2	0.004	0.005	0.1	0.006	4.0	0.015	0.040	0.002	0.100	0.05	0.002	5
MW-804	12/15/2015	<0.002	0.0108	0.531	<0.002	<0.001	<0.01	<0.01	0.219	0.00865	0.0218	<0.0002	<0.005	<0.002	<0.002	1.257
MW-804	2/17/2016	<0.002	0.00719	0.370	<0.002	<0.001	<0.01	<0.01	0.183	<0.002	0.0257	<0.0002	<0.005	<0.002	<0.002	1.308
MW-804	5/26/2016	<0.002	0.00607	0.398	<0.002	<0.001	<0.01	<0.01	0.164	0.00402	0.0379	<0.0002	<0.005	<0.002	<0.002	4.27
MW-804	8/23/2016	<0.002	0.00403	0.329	<0.002	<0.001	<0.01	<0.01	0.168	<0.002	0.0234	<0.0002	<0.005	<0.002	<0.002	1.545
MW-804	11/10/2016	<0.002	0.00644	0.390	<0.002	<0.001	<0.01	<0.01	0.148	<0.002	0.0195	<0.0002	<0.005	<0.002	<0.002	1.00
MW-804	2/9/2017	<0.002	0.00640	0.342	<0.002	<0.001	<0.01	<0.01	0.119	<0.002	0.0204	<0.0002	<0.005	<0.002	<0.002	0.749
MW-804	5/3/2017	<0.002	0.00700	0.411	<0.002	<0.001	<0.01	<0.01	0.182	0.00230	0.0210	<0.0002	<0.005	<0.002	<0.002	0.822
MW-804	8/1/2017	<0.002	0.00418	0.365	<0.002	<0.001	<0.01	<0.01	0.206	<0.002	0.0232	<0.0002	<0.005	<0.002	<0.002	1.28
MW-804	10/4/2017	<0.002	0.00545	0.406	<0.002	<0.001	<0.01	<0.01	0.118	<0.002	0.0220	<0.0002	<0.005	<0.002	<0.002	0.511
MW-804 PL/BG		0.002	0.01078	0.5223	0.002	0.001	0.01	0.01	0.2441	0.00865	0.03616	0.0002	0.005	0.002	0.002	3.569
MW-804 GWPS		0.006	0.01078	2	0.004	0.005	0.1	0.006	4.0	0.015	0.040	0.002	0.100	0.05	0.002	5
MW-805	12/15/2015	<0.002	<0.002	0.180	<0.002	<0.001	<0.01	<0.01	0.148	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	1.843
MW-805	2/17/2016	<0.002	<0.002	0.172	<0.002	<0.001	<0.01	<0.01	0.155	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.940
MW-805	5/26/2016	<0.002	<0.002	0.181	<0.002	<0.001	<0.01	<0.01	0.191	<0.002	0.0153	<0.0002	<0.005	<0.002	<0.002	0.785
MW-805	8/23/2016	<0.002	<0.002	0.174	<0.002	<0.001	<0.01	<0.01	0.172	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	1.705
MW-805	11/10/2016	<0.002	<0.002	0.171	<0.002	<0.001	<0.01	<0.01	0.170	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.668
MW-805	2/9/2017	<0.002	<0.002	0.163	<0.002	<0.001	<0.01	<0.01	0.178	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.338
MW-805	5/3/2017	<0.002	<0.002	0.170	<0.002	<0.001	<0.01	<0.01	0.161	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	1.20
MW-805	8/1/2017	<0.002	<0.002	0.163	<0.002	<0.001	<0.01	<0.01	0.194	<0.002	<0.015					

APPENDIX C

LABORATORY ANALYTICAL REPORTS

- January 2023 – Nature and extent monitoring sampling event for ACM selection of remedy.
- February 2023 – Annual assessment monitoring event.
- March 2023 – First verification sampling for annual assessment monitoring event.
- May 2023 – Spring 2023 semiannual assessment monitoring event and nature and extent monitoring sampling event for ACM.
- July 2023 – Nature and extent monitoring sampling event for ACM selection of remedy.
- August 2023 – Nature and extent monitoring sampling event for ACM selection of remedy.
- November 2023 - Fall 2023 semiannual assessment monitoring sampling event and nature and extent monitoring sampling event for ACM.

SCS Engineers - KS

Sample Delivery Group: L1575612
Samples Received: 01/12/2023
Project Number: 27213162.00-I
Description: Evergy Sibley Gen Station GW 2022-23

Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:












Jeff Carr
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

Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	4	
Sr: Sample Results	5	
MW-806R L1575612-01	5	
DUPLICATE 1 L1575612-02	6	
Qc: Quality Control Summary	7	
Metals (ICP) by Method 6010D	7	
Gl: Glossary of Terms	8	
Al: Accreditations & Locations	9	
Sc: Sample Chain of Custody	10	
		

SAMPLE SUMMARY

MW-806R L1575612-01 GW

Collected by: Todd Mitchell
 Collected date/time: 01/11/23 13:00
 Received date/time: 01/12/23 08:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1988111	1	01/14/23 13:28	01/15/23 20:20	ABL	Mt. Juliet, TN

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

DUPLICATE 1 L1575612-02 GW

Collected by: Todd Mitchell
 Collected date/time: 01/11/23 13:00
 Received date/time: 01/12/23 08:40

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1988111	1	01/14/23 13:28	01/15/23 21:00	ABL	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 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.



Jeff Carr
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	1430	<u>O1</u>	5.00	1	01/15/2023 20:20	<u>WG1988111</u>

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	1450		5.00	1	01/15/2023 21:00	WG1988111

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

Method Blank (MB)

(MB) R3881170-1 01/15/23 20:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Molybdenum	U		1.16	5.00

¹Cp

²Tc

³Ss

Laboratory Control Sample (LCS)

(LCS) R3881170-2 01/15/23 20:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	980	98.0	80.0-120	

⁴Cn

⁵Sr

L1575612-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1575612-01 01/15/23 20:20 • (MS) R3881170-4 01/15/23 20:26 • (MSD) R3881170-5 01/15/23 20:29

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Molybdenum	1000	1430	2400	2410	97.2	98.1	1	75.0-125			0.386	20

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
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

Qualifier	Description
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCREDITATIONS & LOCATIONS

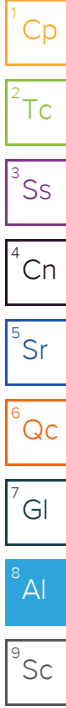
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

¹ 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.



SCS Engineers - KS

Sample Delivery Group: L1585980
Samples Received: 02/15/2023
Project Number: 27213169.22 - B
Description: Evergy Sibley Gen Station GW 2022-23

Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:







Jeff Carr
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 National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

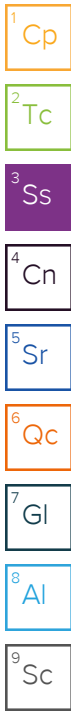
Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	5	
Sr: Sample Results	6	
MW-801 L1585980-01	6	
MW-802 L1585980-02	7	
MW-803 L1585980-03	8	
MW-804 L1585980-04	9	
MW-805 L1585980-05	10	
MW-806R L1585980-06	11	
DUPLICATE L1585980-07	12	
Qc: Quality Control Summary	13	
Gravimetric Analysis by Method 2540 C-2011	13	
Wet Chemistry by Method 9056A	15	
Mercury by Method 7470A	17	
Metals (ICP) by Method 6010D	18	
Metals (ICPMS) by Method 6020	22	
Gl: Glossary of Terms	26	
Al: Accreditations & Locations	27	
Sc: Sample Chain of Custody	28	

SAMPLE SUMMARY

MW-801 L1585980-01 GW

Collected by B. Coleman Collected date/time 02/13/23 15:55 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2006199	1	02/16/23 08:46	02/16/23 11:55	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2006944	1	02/16/23 01:09	02/16/23 01:09	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG2007129	1	02/16/23 18:09	02/17/23 09:15	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2006901	1	02/16/23 09:15	02/17/23 12:16	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2006906	1	02/16/23 12:57	02/16/23 21:04	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2006906	1	02/16/23 12:57	02/16/23 22:32	LD	Mt. Juliet, TN



MW-802 L1585980-02 GW

Collected by B. Coleman Collected date/time 02/13/23 11:00 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2006199	1	02/16/23 08:46	02/16/23 11:55	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2006944	1	02/16/23 01:47	02/16/23 01:47	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG2007129	1	02/16/23 18:09	02/17/23 09:17	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2006901	1	02/16/23 09:15	02/17/23 12:18	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2006906	1	02/16/23 12:57	02/16/23 21:07	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2006906	1	02/16/23 12:57	02/16/23 22:35	LD	Mt. Juliet, TN

MW-803 L1585980-03 GW

Collected by B. Coleman Collected date/time 02/13/23 11:31 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2006199	1	02/16/23 08:46	02/16/23 11:55	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2006944	1	02/16/23 01:59	02/16/23 01:59	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG2007129	1	02/16/23 18:09	02/17/23 09:20	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2006901	1	02/16/23 09:15	02/17/23 11:29	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2006906	1	02/16/23 12:57	02/16/23 21:19	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2006906	1	02/16/23 12:57	02/16/23 22:38	LD	Mt. Juliet, TN

MW-804 L1585980-04 GW

Collected by B. Coleman Collected date/time 02/13/23 12:35 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2006199	1	02/16/23 08:46	02/16/23 11:55	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2006944	1	02/16/23 02:12	02/16/23 02:12	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG2007129	1	02/16/23 18:09	02/17/23 09:22	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2006901	1	02/16/23 09:15	02/17/23 12:21	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2006906	1	02/16/23 12:57	02/16/23 21:22	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2006906	1	02/16/23 12:57	02/16/23 22:41	LD	Mt. Juliet, TN

MW-805 L1585980-05 GW

Collected by B. Coleman Collected date/time 02/13/23 13:20 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2007197	1	02/16/23 08:54	02/17/23 13:02	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2006944	1	02/16/23 02:24	02/16/23 02:24	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG2007129	1	02/16/23 18:09	02/17/23 09:28	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2007374	1	02/16/23 14:28	02/17/23 19:49	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2007374	1	02/16/23 14:28	02/21/23 16:08	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2007053	1	02/16/23 08:50	02/16/23 13:34	JPD	Mt. Juliet, TN

SAMPLE SUMMARY

MW-806R L1585980-06 GW

Collected by: B. Coleman
 Collected date/time: 02/13/23 11:40
 Received date/time: 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2007197	1	02/16/23 08:54	02/17/23 13:02	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2006944	1	02/16/23 02:37	02/16/23 02:37	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2006944	5	02/16/23 03:39	02/16/23 03:39	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG2007129	1	02/16/23 18:09	02/17/23 09:06	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2007052	1	02/16/23 13:53	02/16/23 18:59	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2007053	1	02/16/23 08:50	02/16/23 12:54	JPD	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

DUPLICATE L1585980-07 GW

Collected by: B. Coleman
 Collected date/time: 02/13/23 11:45
 Received date/time: 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2007197	1	02/16/23 08:54	02/17/23 13:02	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2006944	1	02/16/23 03:51	02/16/23 03:51	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2006944	5	02/16/23 04:04	02/16/23 04:04	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG2007129	1	02/16/23 18:09	02/17/23 09:31	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2007374	1	02/16/23 14:28	02/17/23 19:51	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2007374	1	02/16/23 14:28	02/21/23 16:10	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2007053	1	02/16/23 08:50	02/16/23 13:38	JPD	Mt. Juliet, TN

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

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 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.



Jeff Carr
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	565000		10000	1	02/16/2023 11:55	WG2006199

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	119000		1000	1	02/16/2023 01:09	WG2006944
Fluoride	166		150	1	02/16/2023 01:09	WG2006944
Sulfate	43500		5000	1	02/16/2023 01:09	WG2006944

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	02/17/2023 09:15	WG2007129

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	149		5.00	1	02/17/2023 12:16	WG2006901
Boron	ND		200	1	02/17/2023 12:16	WG2006901
Calcium	124000		1000	1	02/17/2023 12:16	WG2006901
Chromium	ND		10.0	1	02/17/2023 12:16	WG2006901
Lithium	15.3		15.0	1	02/17/2023 12:16	WG2006901
Molybdenum	ND		5.00	1	02/17/2023 12:16	WG2006901

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	02/16/2023 22:32	WG2006906
Arsenic	ND		2.00	1	02/16/2023 22:32	WG2006906
Beryllium	ND		2.00	1	02/16/2023 21:04	WG2006906
Cadmium	ND		1.00	1	02/16/2023 22:32	WG2006906
Cobalt	ND		2.00	1	02/16/2023 22:32	WG2006906
Lead	ND		2.00	1	02/16/2023 22:32	WG2006906
Selenium	2.41		2.00	1	02/16/2023 22:32	WG2006906
Thallium	ND		2.00	1	02/16/2023 22:32	WG2006906

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	288000		10000	1	02/16/2023 11:55	WG2006199

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	44500		1000	1	02/16/2023 01:47	WG2006944
Fluoride	153		150	1	02/16/2023 01:47	WG2006944
Sulfate	51900		5000	1	02/16/2023 01:47	WG2006944

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	02/17/2023 09:17	WG2007129

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	144		5.00	1	02/17/2023 12:18	WG2006901
Boron	ND		200	1	02/17/2023 12:18	WG2006901
Calcium	53400		1000	1	02/17/2023 12:18	WG2006901
Chromium	ND		10.0	1	02/17/2023 12:18	WG2006901
Lithium	ND		15.0	1	02/17/2023 12:18	WG2006901
Molybdenum	ND		5.00	1	02/17/2023 12:18	WG2006901

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	02/16/2023 22:35	WG2006906
Arsenic	2.02		2.00	1	02/16/2023 22:35	WG2006906
Beryllium	ND		2.00	1	02/16/2023 21:07	WG2006906
Cadmium	ND		1.00	1	02/16/2023 22:35	WG2006906
Cobalt	ND		2.00	1	02/16/2023 22:35	WG2006906
Lead	ND		2.00	1	02/16/2023 22:35	WG2006906
Selenium	2.48		2.00	1	02/16/2023 22:35	WG2006906
Thallium	ND		2.00	1	02/16/2023 22:35	WG2006906

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	457000		10000	1	02/16/2023 11:55	WG2006199

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	21800		1000	1	02/16/2023 01:59	WG2006944
Fluoride	294		150	1	02/16/2023 01:59	WG2006944
Sulfate	93400		5000	1	02/16/2023 01:59	WG2006944

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	02/17/2023 09:20	WG2007129

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	119		5.00	1	02/17/2023 11:29	WG2006901
Boron	2990		200	1	02/17/2023 11:29	WG2006901
Calcium	110000		1000	1	02/17/2023 11:29	WG2006901
Chromium	ND		10.0	1	02/17/2023 11:29	WG2006901
Lithium	18.2		15.0	1	02/17/2023 11:29	WG2006901
Molybdenum	ND		5.00	1	02/17/2023 11:29	WG2006901

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	02/16/2023 22:38	WG2006906
Arsenic	2.46		2.00	1	02/16/2023 22:38	WG2006906
Beryllium	ND		2.00	1	02/16/2023 21:19	WG2006906
Cadmium	ND		1.00	1	02/16/2023 22:38	WG2006906
Cobalt	ND		2.00	1	02/16/2023 22:38	WG2006906
Lead	ND		2.00	1	02/16/2023 22:38	WG2006906
Selenium	ND		2.00	1	02/16/2023 22:38	WG2006906
Thallium	ND		2.00	1	02/16/2023 22:38	WG2006906

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	667000		13300	1	02/16/2023 11:55	WG2006199

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	21700		1000	1	02/16/2023 02:12	WG2006944
Fluoride	260		150	1	02/16/2023 02:12	WG2006944
Sulfate	ND		5000	1	02/16/2023 02:12	WG2006944

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	02/17/2023 09:22	WG2007129

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	532		5.00	1	02/17/2023 12:21	WG2006901
Boron	11900		200	1	02/17/2023 12:21	WG2006901
Calcium	169000		1000	1	02/17/2023 12:21	WG2006901
Chromium	ND		10.0	1	02/17/2023 12:21	WG2006901
Lithium	24.6		15.0	1	02/17/2023 12:21	WG2006901
Molybdenum	ND		5.00	1	02/17/2023 12:21	WG2006901

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	02/16/2023 22:41	WG2006906
Arsenic	10.1		2.00	1	02/16/2023 22:41	WG2006906
Beryllium	ND		2.00	1	02/16/2023 21:22	WG2006906
Cadmium	ND		1.00	1	02/16/2023 22:41	WG2006906
Cobalt	ND		2.00	1	02/16/2023 22:41	WG2006906
Lead	ND		2.00	1	02/16/2023 22:41	WG2006906
Selenium	ND		2.00	1	02/16/2023 22:41	WG2006906
Thallium	ND		2.00	1	02/16/2023 22:41	WG2006906

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	336000		10000	1	02/17/2023 13:02	WG2007197

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	7040		1000	1	02/16/2023 02:24	WG2006944
Fluoride	192		150	1	02/16/2023 02:24	WG2006944
Sulfate	42900		5000	1	02/16/2023 02:24	WG2006944

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	02/17/2023 09:28	WG2007129

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	145		5.00	1	02/21/2023 16:08	WG2007374
Boron	ND		200	1	02/17/2023 19:49	WG2007374
Calcium	89400		1000	1	02/17/2023 19:49	WG2007374
Chromium	ND		10.0	1	02/17/2023 19:49	WG2007374
Lithium	ND		15.0	1	02/17/2023 19:49	WG2007374
Molybdenum	ND		5.00	1	02/17/2023 19:49	WG2007374

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	02/16/2023 13:34	WG2007053
Arsenic	ND		2.00	1	02/16/2023 13:34	WG2007053
Beryllium	ND		2.00	1	02/16/2023 13:34	WG2007053
Cadmium	ND		1.00	1	02/16/2023 13:34	WG2007053
Cobalt	ND		2.00	1	02/16/2023 13:34	WG2007053
Lead	ND		2.00	1	02/16/2023 13:34	WG2007053
Selenium	ND		2.00	1	02/16/2023 13:34	WG2007053
Thallium	ND		2.00	1	02/16/2023 13:34	WG2007053

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	739000		13300	1	02/17/2023 13:02	WG2007197

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	30100		1000	1	02/16/2023 02:37	WG2006944
Fluoride	207		150	1	02/16/2023 02:37	WG2006944
Sulfate	274000		25000	5	02/16/2023 03:39	WG2006944

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	02/17/2023 09:06	WG2007129

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	80.7		5.00	1	02/16/2023 18:59	WG2007052
Boron	3600		200	1	02/16/2023 18:59	WG2007052
Calcium	161000		1000	1	02/16/2023 18:59	WG2007052
Chromium	ND		10.0	1	02/16/2023 18:59	WG2007052
Lithium	15.4		15.0	1	02/16/2023 18:59	WG2007052
Molybdenum	1390		5.00	1	02/16/2023 18:59	WG2007052

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	02/16/2023 12:54	WG2007053
Arsenic	5.32		2.00	1	02/16/2023 12:54	WG2007053
Beryllium	ND		2.00	1	02/16/2023 12:54	WG2007053
Cadmium	ND		1.00	1	02/16/2023 12:54	WG2007053
Cobalt	ND		2.00	1	02/16/2023 12:54	WG2007053
Lead	ND		2.00	1	02/16/2023 12:54	WG2007053
Selenium	ND		2.00	1	02/16/2023 12:54	WG2007053
Thallium	ND		2.00	1	02/16/2023 12:54	WG2007053

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	739000		13300	1	02/17/2023 13:02	WG2007197

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	30400		1000	1	02/16/2023 03:51	WG2006944
Fluoride	200		150	1	02/16/2023 03:51	WG2006944
Sulfate	275000		25000	5	02/16/2023 04:04	WG2006944

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	02/17/2023 09:31	WG2007129

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	101		5.00	1	02/21/2023 16:10	WG2007374
Boron	3930		200	1	02/17/2023 19:51	WG2007374
Calcium	166000		1000	1	02/17/2023 19:51	WG2007374
Chromium	ND		10.0	1	02/17/2023 19:51	WG2007374
Lithium	20.7		15.0	1	02/17/2023 19:51	WG2007374
Molybdenum	1600		5.00	1	02/17/2023 19:51	WG2007374

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	02/16/2023 13:38	WG2007053
Arsenic	7.07		2.00	1	02/16/2023 13:38	WG2007053
Beryllium	ND		2.00	1	02/16/2023 13:38	WG2007053
Cadmium	ND		1.00	1	02/16/2023 13:38	WG2007053
Cobalt	ND		2.00	1	02/16/2023 13:38	WG2007053
Lead	ND		2.00	1	02/16/2023 13:38	WG2007053
Selenium	ND		2.00	1	02/16/2023 13:38	WG2007053
Thallium	ND		2.00	1	02/16/2023 13:38	WG2007053

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3892268-1 02/16/23 11:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U	<u>J</u>	10000	10000

¹Cp

²Tc

³Ss

L1585319-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1585319-06 02/16/23 11:55 • (DUP) R3892268-3 02/16/23 11:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	543000	544000	1	0.184		5

⁴Cn

⁵Sr

L1585319-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1585319-07 02/16/23 11:55 • (DUP) R3892268-4 02/16/23 11:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	341000	364000	1	6.52	<u>J3</u>	5

⁶Qc

⁷Gl

⁸Al

Laboratory Control Sample (LCS)

(LCS) R3892268-2 02/16/23 11:55

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8170000	92.8	77.3-123	

⁹Sc

Method Blank (MB)

(MB) R3892800-1 02/17/23 13:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U		10000	10000

Laboratory Control Sample (LCS)

(LCS) R3892800-2 02/17/23 13:02

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8070000	91.7	77.3-123	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3891642-1 02/15/23 22:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

L1585980-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1585980-01 02/16/23 01:09 • (DUP) R3891642-3 02/16/23 01:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	119000	119000	1	0.135		15
Fluoride	166	170	1	2.26		15
Sulfate	43500	43500	1	0.0678		15

L1586070-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1586070-02 02/16/23 05:06 • (DUP) R3891642-7 02/16/23 05:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	ND	ND	1	0.000		15
Fluoride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3891642-2 02/15/23 22:38

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	40000	100	80.0-120	
Fluoride	8000	8220	103	80.0-120	
Sulfate	40000	40000	99.9	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1585980-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585980-06 02/16/23 02:37 • (MS) R3891642-5 02/16/23 02:49 • (MSD) R3891642-6 02/16/23 03:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	30100	79100	79100	98.1	98.1	1	80.0-120			0.00329	15
Fluoride	5000	207	5350	5340	103	103	1	80.0-120			0.0412	15
Sulfate	50000	270000	308000	308000	75.8	75.3	1	80.0-120	EV	EV	0.0786	15

L1585980-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1585980-01 02/16/23 01:09 • (MS) R3891642-4 02/16/23 01:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	119000	165000	91.2	1	80.0-120	
Fluoride	5000	166	5480	106	1	80.0-120	
Sulfate	50000	43500	93100	99.1	1	80.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3891937-1 02/17/23 09:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.100	0.200

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3891937-2 02/17/23 09:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	2.97	99.0	80.0-120	

4 Cn

5 Sr

L1585980-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585980-06 02/17/23 09:06 • (MS) R3891937-3 02/17/23 09:08 • (MSD) R3891937-4 02/17/23 09:11

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	ND	3.09	3.11	103	104	1	75.0-125			0.645	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3892040-1 02/17/23 11:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	U		0.736	5.00
Boron	U		20.0	200
Calcium	U		79.3	1000
Chromium	U		1.40	10.0
Lithium	U		4.85	15.0
Molybdenum	U		1.16	5.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

Laboratory Control Sample (LCS)

(LCS) R3892040-2 02/17/23 11:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	1030	103	80.0-120	
Boron	1000	1020	102	80.0-120	
Calcium	10000	10100	101	80.0-120	
Chromium	1000	973	97.3	80.0-120	
Lithium	1000	1020	102	80.0-120	
Molybdenum	1000	1040	104	80.0-120	

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1585980-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585980-03 02/17/23 11:29 • (MS) R3892040-4 02/17/23 11:34 • (MSD) R3892040-5 02/17/23 11:36

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	119	1120	1130	101	101	1	75.0-125			0.380	20
Boron	1000	2990	3940	3910	94.5	91.5	1	75.0-125			0.786	20
Calcium	10000	110000	118000	118000	76.6	75.5	1	75.0-125			0.0895	20
Chromium	1000	ND	958	961	95.8	96.1	1	75.0-125			0.283	20
Lithium	1000	18.2	1060	1070	105	105	1	75.0-125			0.291	20
Molybdenum	1000	ND	1030	1030	103	103	1	75.0-125			0.280	20

Method Blank (MB)

(MB) R3891773-1 02/16/23 18:28

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	0.797	U	0.736	5.00
Boron	U		20.0	200
Calcium	U		79.3	1000
Chromium	U		1.40	10.0
Lithium	U		4.85	15.0
Molybdenum	U		1.16	5.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3891773-2 02/16/23 18:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	1020	102	80.0-120	
Boron	1000	998	99.8	80.0-120	
Calcium	10000	10300	103	80.0-120	
Chromium	1000	995	99.5	80.0-120	
Lithium	1000	969	96.9	80.0-120	
Molybdenum	1000	1010	101	80.0-120	

L1585882-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585882-01 02/16/23 18:51 • (MS) R3891773-4 02/16/23 18:38 • (MSD) R3891773-5 02/16/23 18:40

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	40.4	1130	1120	109	108	1	75.0-125			0.748	20
Boron	1000	ND	1020	1020	86.6	87.0	1	75.0-125			0.397	20
Calcium	10000	43400	68500	67800	252	244	1	75.0-125	V	V	1.08	20
Chromium	1000	ND	981	984	98.1	98.4	1	75.0-125			0.310	20
Lithium	1000	46.9	971	976	92.4	92.9	1	75.0-125			0.491	20
Molybdenum	1000	5.52	1010	997	101	99.2	1	75.0-125			1.44	20

Method Blank (MB)

(MB) R3892411-1 02/17/23 19:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Boron	U		20.0	200
Calcium	U		79.3	1000
Chromium	U		1.40	10.0
Lithium	U		4.85	15.0
Molybdenum	U		1.16	5.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3893297-1 02/21/23 15:52

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Barium	U		0.736	5.00

Laboratory Control Sample (LCS)

(LCS) R3892411-2 02/17/23 19:35

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Boron	1000	1060	106	80.0-120	
Calcium	10000	10200	102	80.0-120	
Chromium	1000	1040	104	80.0-120	
Lithium	1000	1030	103	80.0-120	
Molybdenum	1000	1060	106	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3893297-2 02/21/23 15:55

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Barium	1000	1030	103	80.0-120	

L1586279-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1586279-07 02/17/23 19:38 • (MS) R3892411-4 02/17/23 19:43 • (MSD) R3892411-5 02/17/23 19:46

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Boron	1000	ND	1110	1120	105	106	1	75.0-125			0.271	20
Calcium	10000	1560	11700	11600	101	101	1	75.0-125			0.134	20

L1586279-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1586279-07 02/17/23 19:38 • (MS) R3892411-4 02/17/23 19:43 • (MSD) R3892411-5 02/17/23 19:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium	1000	ND	1050	1050	105	105	1	75.0-125			0.0969	20
Lithium	1000	ND	1030	1030	102	102	1	75.0-125			0.210	20
Molybdenum	1000	ND	1070	1070	107	107	1	75.0-125			0.0992	20

L1586279-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1586279-07 02/21/23 15:57 • (MS) R3893297-4 02/21/23 16:03 • (MSD) R3893297-5 02/21/23 16:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	41.8	1060	1060	102	102	1	75.0-125			0.0287	20

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

Method Blank (MB)

(MB) R3891801-1 02/16/23 21:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Antimony	U		1.03	4.00
Arsenic	U		0.180	2.00
Cadmium	U		0.150	1.00
Cobalt	U		0.0596	2.00
Lead	U		0.849	2.00
Selenium	U		0.300	2.00
Thallium	U		0.121	2.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3891803-1 02/16/23 20:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Beryllium	U		0.190	2.00

Laboratory Control Sample (LCS)

(LCS) R3891801-2 02/16/23 21:16

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Antimony	50.0	47.1	94.2	80.0-120	
Arsenic	50.0	45.6	91.3	80.0-120	
Cadmium	50.0	52.7	105	80.0-120	
Cobalt	50.0	50.0	100	80.0-120	
Lead	50.0	49.7	99.4	80.0-120	
Selenium	50.0	50.8	102	80.0-120	
Thallium	50.0	49.0	98.1	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3891803-2 02/16/23 20:41

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Beryllium	50.0	48.3	96.5	80.0-120	

L1585782-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585782-02 02/16/23 21:19 • (MS) R3891801-4 02/16/23 21:26 • (MSD) R3891801-5 02/16/23 21:29

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	ND	48.4	47.2	96.8	94.4	1	75.0-125			2.56	20
Arsenic	50.0	ND	46.1	47.3	91.0	93.3	1	75.0-125			2.38	20
Cadmium	50.0	ND	52.7	52.1	105	104	1	75.0-125			1.21	20
Cobalt	50.0	ND	50.3	50.4	99.8	100	1	75.0-125			0.332	20
Lead	50.0	ND	48.8	49.9	97.6	99.7	1	75.0-125			2.14	20
Selenium	50.0	ND	51.1	50.9	102	102	1	75.0-125			0.381	20
Thallium	50.0	ND	49.0	49.6	98.0	99.2	1	75.0-125			1.24	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

L1585782-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585782-02 02/16/23 20:44 • (MS) R3891803-4 02/16/23 20:51 • (MSD) R3891803-5 02/16/23 20:54

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	50.0	ND	48.0	47.6	96.0	95.2	1	75.0-125			0.847	20

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R3891643-2 02/16/23 12:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Antimony	U		1.03	4.00
Arsenic	0.433	U	0.180	2.00
Beryllium	U		0.190	2.00
Cadmium	U		0.150	1.00
Cobalt	U		0.0596	2.00
Lead	U		0.849	2.00
Selenium	U		0.300	2.00
Thallium	U		0.121	2.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3891643-3 02/16/23 12:51

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Antimony	50.0	46.6	93.2	80.0-120	
Arsenic	50.0	48.3	96.6	80.0-120	
Beryllium	50.0	42.7	85.4	80.0-120	
Cadmium	50.0	53.2	106	80.0-120	
Cobalt	50.0	52.5	105	80.0-120	
Lead	50.0	49.1	98.3	80.0-120	
Selenium	50.0	53.6	107	80.0-120	
Thallium	50.0	48.6	97.1	80.0-120	

L1585980-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585980-06 02/16/23 12:54 • (MS) R3891643-5 02/16/23 13:01 • (MSD) R3891643-6 02/16/23 13:04

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Antimony	50.0	ND	45.5	44.5	90.9	89.0	1	75.0-125			2.16	20
Arsenic	50.0	5.32	51.9	53.4	93.2	96.3	1	75.0-125			2.86	20
Beryllium	50.0	ND	38.9	38.2	77.8	76.4	1	75.0-125			1.80	20
Cadmium	50.0	ND	52.3	53.7	104	107	1	75.0-125			2.71	20
Cobalt	50.0	ND	50.6	51.5	101	103	1	75.0-125			1.93	20
Lead	50.0	ND	47.2	49.7	94.5	99.4	1	75.0-125			5.03	20
Selenium	50.0	ND	51.1	51.6	102	103	1	75.0-125			0.844	20
Thallium	50.0	ND	49.3	49.1	98.7	98.2	1	75.0-125			0.449	20

L1584214-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1584214-02 02/16/23 14:01 • (MS) R3891643-9 02/16/23 14:04 • (MSD) R3891643-10 02/16/23 14:08

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	ND	60.5	63.5	94.3	100	10	75.0-125			4.80	20
Arsenic	50.0	576	636	642	120	131	10	75.0-125	V		0.821	20
Beryllium	50.0	ND	45.3	44.5	90.7	89.1	10	75.0-125			1.77	20
Cadmium	50.0	ND	49.3	47.2	98.5	94.4	10	75.0-125			4.22	20
Cobalt	50.0	ND	62.4	62.6	99.8	100	10	75.0-125			0.234	20
Lead	50.0	ND	53.0	53.4	84.8	85.6	10	75.0-125			0.751	20
Selenium	50.0	ND	58.9	61.5	100	106	10	75.0-125			4.35	20
Thallium	50.0	ND	46.2	46.0	92.4	92.0	10	75.0-125			0.457	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

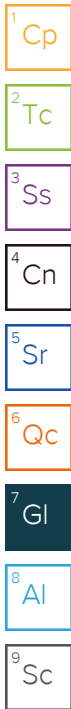
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

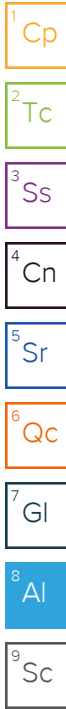
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



Company Name/Address:
SCS Engineers - KS
 8575 W. 110th Street
 Overland Park, KS 66210

Billing Information:
Accounts Payable
 8575 W. 110th Street
 Overland Park, KS 66210

Analysis / Container / Preservative
 Pres Chk

Chain of Custody Page 1 of 1

MT JULIET, TN
 12065 Lebanon Rd Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

Report to:
Jason Franks

Email To:
jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:
Energy Sibley Gen Station GW 2022-23

City/State Collected: **Sibley, Mo**
 Please Circle: PT MT **ET**

Phone: **913-681-0030**

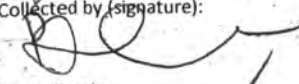
Client Project #
27213169.22 - B

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
B. Comman

Site/Facility ID #

P.O. #

Collected by (signature):

 Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #
 Date Results Needed
STD

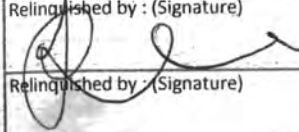
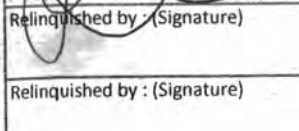
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride, F, SO4 125ml HDPE-NoPres	Metals 250ml HDPE-HNO3	TDS 1L-HDPE NoPres						
MW-801	G	GW	-	2-14-23	1555	3	X	X	X						
MW-802		GW			1100	3	X	X	X						
MW-803		GW			1131	3	X	X	X						
MW-804		GW			1235	3	X	X	X						
MW-805		GW			1320	3	X	X	X						
MW-806R		GW			1140	3	X	X	X						
800R MS/MSD DUPLICATE		GW			1150	3	X	X	X						
		GW			1145	3	X	X	X						

SDG # **1585080**
F179
 Acctnum: **AQUAOPKS**
 Template: **T198904**
 Prelogin: **P979161**
 PM: **206 - Jeff Carr**
 PB:
 Shipped Via: **FedEX Ground**

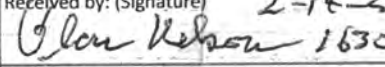
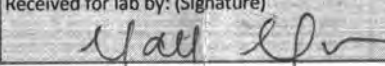
* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: **6010 - Ba,B,Ca,Cr,Li,Mo**
6020 - Sb,As,Be,Cd,Co,Pb,Se,Tl
7470 - Hg
 pH _____ Temp _____
 Flow _____ Other _____
 Samples returned via: UPS FedEx Courier
 Tracking #

Sample Receipt Checklist
 COC Seal Present/Intact: NP Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N
 RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)

 Relinquished by: (Signature)

 Relinquished by: (Signature)

Date: **2-14-23**
 Time: **1600**

Received by: (Signature) **2-14-23**

 Received by: (Signature)
 Received for lab by: (Signature)


Trip Blank Received: Yes (No)
 HCL/MeOH
 TBR
 Temp: **NSAW °C**
1.3 to = 1.3
 Bottles Received: **24**
 Date: **2-15-23**
 Time: **1530**

If preservation required by Login: Date/Time
 Hold:
 Condition: **NCF** **OK**

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SCS Engineers - KS

Sample Delivery Group: L1585977
Samples Received: 02/15/2023
Project Number: 27213169.22 - B
Description: Evergy Sibley Gen Station GW 2022-23

Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
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.

TABLE OF CONTENTS

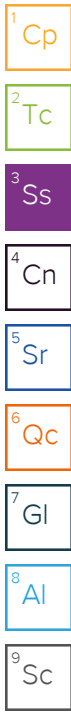
Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	2 Tc
Cn: Case Narrative	5	
Sr: Sample Results	6	3 Ss
801 L1585977-01	6	
802 L1585977-02	7	4 Cn
803 L1585977-03	8	5 Sr
804 L1585977-04	9	
805 L1585977-05	10	6 Qc
806R L1585977-06	11	
DUPLICATE L1585977-07	12	7 Gl
Qc: Quality Control Summary	13	8 Al
Radiochemistry by Method 904/9320	13	
Radiochemistry by Method SM7500Ra B M	16	9 Sc
Gl: Glossary of Terms	17	
Al: Accreditations & Locations	18	
Sc: Sample Chain of Custody	19	

SAMPLE SUMMARY

801 L1585977-01 Non-Potable Water

Collected by B. Coleman Collected date/time 02/13/23 15:55 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2019679	1	03/09/23 17:02	03/13/23 10:08	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2009498	1	02/23/23 09:25	03/13/23 10:08	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2009498	1	02/23/23 09:25	02/27/23 10:54	RGT	Mt. Juliet, TN



802 L1585977-02 Non-Potable Water

Collected by B. Coleman Collected date/time 02/13/23 11:00 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2019679	1	03/09/23 17:02	03/13/23 10:08	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2009498	1	02/23/23 09:25	03/13/23 10:08	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2009498	1	02/23/23 09:25	02/27/23 10:54	RGT	Mt. Juliet, TN

803 L1585977-03 Non-Potable Water

Collected by B. Coleman Collected date/time 02/13/23 11:31 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2019679	1	03/09/23 17:02	03/13/23 10:08	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2009498	1	02/23/23 09:25	03/13/23 10:08	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2009498	1	02/23/23 09:25	02/27/23 10:54	RGT	Mt. Juliet, TN

804 L1585977-04 Non-Potable Water

Collected by B. Coleman Collected date/time 02/13/23 12:35 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2021195	1	03/13/23 17:27	03/16/23 21:23	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2009498	1	02/23/23 09:25	03/16/23 21:23	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2009498	1	02/23/23 09:25	02/27/23 10:54	RGT	Mt. Juliet, TN

805 L1585977-05 Non-Potable Water

Collected by B. Coleman Collected date/time 02/13/23 13:20 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2021195	1	03/13/23 17:27	03/16/23 21:23	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2009498	1	02/23/23 09:25	03/16/23 21:23	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2009498	1	02/23/23 09:25	02/27/23 10:54	RGT	Mt. Juliet, TN

806R L1585977-06 Non-Potable Water

Collected by B. Coleman Collected date/time 02/13/23 11:40 Received date/time 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2023907	1	03/15/23 19:33	03/20/23 17:45	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2009498	1	02/23/23 09:25	03/20/23 17:45	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2009498	1	02/23/23 09:25	02/27/23 10:54	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

DUPLICATE L1585977-07 Non-Potable Water

Collected by: B. Coleman
 Collected date/time: 02/13/23 11:45
 Received date/time: 02/15/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2021195	1	03/13/23 17:27	03/16/23 21:23	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2009498	1	02/23/23 09:25	03/16/23 21:23	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2009498	1	02/23/23 09:25	02/27/23 10:54	RGT	Mt. Juliet, TN

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

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.



Jeff Carr
Project Manager

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	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.602		0.241	0.433	03/13/2023 10:08	WG2019679
(T) Barium	87.0			30.0-143	03/13/2023 10:08	WG2019679
(T) Yttrium	100			30.0-136	03/13/2023 10:08	WG2019679

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.683		0.288	0.503	03/13/2023 10:08	WG2009498

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0813	<u>U</u>	0.157	0.256	02/27/2023 10:54	WG2009498
(T) Barium-133	95.4			30.0-143	02/27/2023 10:54	WG2009498

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.819		0.260	0.462	03/13/2023 10:08	WG2019679
(T) Barium	87.2			30.0-143	03/13/2023 10:08	WG2019679
(T) Yttrium	105			30.0-136	03/13/2023 10:08	WG2019679

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.952		0.319	0.535	03/13/2023 10:08	WG2009498

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.134	J	0.185	0.270	02/27/2023 10:54	WG2009498
(T) Barium-133	98.6			30.0-143	02/27/2023 10:54	WG2009498

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.776		0.291	0.519	03/13/2023 10:08	WG2019679
(T) Barium	91.0			30.0-143	03/13/2023 10:08	WG2019679
(T) Yttrium	98.1			30.0-136	03/13/2023 10:08	WG2019679

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.951		0.359	0.594	03/13/2023 10:08	WG2009498

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.175	J	0.210	0.288	02/27/2023 10:54	WG2009498
(T) Barium-133	85.4			30.0-143	02/27/2023 10:54	WG2009498

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.37		0.316	0.541	03/16/2023 21:23	WG2021195
(T) Barium	85.9			30.0-143	03/16/2023 21:23	WG2021195
(T) Yttrium	96.1			30.0-136	03/16/2023 21:23	WG2021195

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

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.83		0.429	0.618	03/16/2023 21:23	WG2009498

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.457		0.290	0.298	02/27/2023 10:54	WG2009498
(T) Barium-133	92.3			30.0-143	02/27/2023 10:54	WG2009498

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.227	<u>U</u>	0.323	0.606	03/16/2023 21:23	WG2021195
(T) Barium	94.5			30.0-143	03/16/2023 21:23	WG2021195
(T) Yttrium	86.3			30.0-136	03/16/2023 21:23	WG2021195

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.489	<u>J</u>	0.444	0.675	03/16/2023 21:23	WG2009498

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.489		0.305	0.298	02/27/2023 10:54	WG2009498
(T) Barium-133	86.2			30.0-143	02/27/2023 10:54	WG2009498

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.90		0.574	0.978	03/20/2023 17:45	WG2023907
(T) Barium	80.7			30.0-143	03/20/2023 17:45	WG2023907
(T) Yttrium	77.7			30.0-136	03/20/2023 17:45	WG2023907

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.97		0.592	1.01	03/20/2023 17:45	WG2009498

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0644	<u>U</u>	0.144	0.249	02/27/2023 10:54	WG2009498
(T) Barium-133	86.9			30.0-143	02/27/2023 10:54	WG2009498

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	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.210	<u>U</u>	0.249	0.460	03/16/2023 21:23	WG2021195
(T) Barium	82.1			30.0-143	03/16/2023 21:23	WG2021195
(T) Yttrium	109			30.0-136	03/16/2023 21:23	WG2021195

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.210	<u>U</u>	0.275	0.538	03/16/2023 21:23	WG2009498

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0344	<u>U</u>	0.117	0.279	02/27/2023 10:54	WG2009498
(T) Barium-133	91.6			30.0-143	02/27/2023 10:54	WG2009498

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3900493-1 03/13/23 10:08

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.151	↓	0.142	0.264
(T) Barium	89.0		89.0	
(T) Yttrium	110		110	

L1585432-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1585432-01 03/13/23 10:08 • (DUP) R3900493-5 03/13/23 10:08

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.688	0.246	0.439	1.77	0.561	0.439	1	88.0	1.77		20	3
(T) Barium	100			97.5	97.5							
(T) Yttrium	111			103	103							

Laboratory Control Sample (LCS)

(LCS) R3900493-2 03/13/23 10:08

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.42	108	80.0-120	
(T) Barium			98.7		
(T) Yttrium			117		

L1585441-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585441-01 03/13/23 10:08 • (MS) R3900493-3 03/13/23 10:08 • (MSD) R3900493-4 03/13/23 10:08

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	1.02	10.9	12.3	99.2	112	1	70.0-130			11.3		20
(T) Barium		102			95.9	92.4							
(T) Yttrium		102			105	96.4							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3902401-1 03/16/23 21:23

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.0944	↓	0.183	0.164
(T) Barium	92.3		92.3	
(T) Yttrium	96.1		96.1	

L1586847-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1586847-01 03/16/23 21:23 • (DUP) R3902401-5 03/16/23 21:23

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	1.04	0.403	0.720	0.394	0.346	0.720	1	90.0	1.22	↓	20	3
(T) Barium	101			86.3	86.3							
(T) Yttrium	90.8			104	104							

Laboratory Control Sample (LCS)

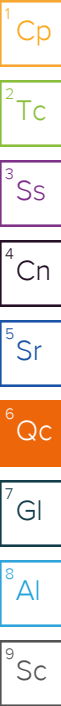
(LCS) R3902401-2 03/16/23 21:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.70	114	80.0-120	
(T) Barium			93.7		
(T) Yttrium			104		

L1585446-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585446-01 03/16/23 21:23 • (MS) R3902401-3 03/16/23 21:23 • (MSD) R3902401-4 03/16/23 21:23

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	1.14	12.8	12.8	117	116	1	70.0-130			0.156		20
(T) Barium		86.3			70.0	89.2							
(T) Yttrium		96.3			93.7	90.4							



Method Blank (MB)

(MB) R3903513-1 03/20/23 17:45

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	-0.137	<u>U</u>	0.165	0.302
(T) Barium	92.2		92.2	
(T) Yttrium	100		100	

L1587256-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1587256-01 03/20/23 17:45 • (DUP) R3903513-5 03/20/23 17:45

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	1.61	0.441	0.748	1.75	0.370	0.748	1	7.98	0.233		20	3
(T) Barium	94.4			89.5	89.5							
(T) Yttrium	94.9			100	100							

Laboratory Control Sample (LCS)

(LCS) R3903513-2 03/20/23 17:45

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.92	118	80.0-120	
(T) Barium			94.6		
(T) Yttrium			92.9		

L1585977-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585977-06 03/20/23 17:45 • (MS) R3903513-3 03/20/23 17:45 • (MSD) R3903513-4 03/20/23 17:45

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	1.90	11.5	11.5	96.2	96.3	1	70.0-130			0.0868		20
(T) Barium		80.7			90.2	83.9							
(T) Yttrium		77.7			95.6	94.8							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3895394-1 02/27/23 10:54

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.00585	<u>U</u>	0.0195	0.0366
(T) Barium-133	87.5		87.5	

L1585977-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1585977-07 02/27/23 10:54 • (DUP) R3895394-5 02/27/23 10:54

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	-0.0344	0.117	0.279	0.177	0.231	0.279	1	200	0.818	<u>J</u>	20	3
(T) Barium-133	91.6			103	103							

Laboratory Control Sample (LCS)

(LCS) R3895394-2 02/27/23 10:54

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.34	106	80.0-120	
(T) Barium-133			90.9		

L1585977-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585977-05 02/27/23 10:54 • (MS) R3895394-3 02/27/23 10:54 • (MSD) R3895394-4 02/27/23 10:54

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	20.0	0.489	19.3	23.5	93.9	115	1	75.0-125			19.7		20
(T) Barium-133		86.2			99.5	86.8							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier Description

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCREDITATIONS & LOCATIONS

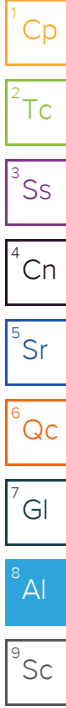
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

¹ 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.



Company Name/Address:
SCS Engineers - KS
 8575 W. 110th Street
 Overland Park, KS 66210

Billing Information:
Accounts Payable
 8575 W. 110th Street
 Overland Park, KS 66210

Pres
 Chk

Analysis / Container / Preservative									

Chain of Custody Page 1 of 1



MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
 Submitting a sample via this chain of custody
 constitutes acknowledgment and acceptance of the
 Pace Terms and Conditions found at:
<https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

Report to:
Jason Franks

Email To:
jfranks@scsengineers.com;jay.martin@evergy.com

Project Description:
Evergy Sibley Gen Station GW 2022-23

City/State Collected:
Sibley, Mo

Please Circle:
 PT MT **CT** ET

Phone: **913-681-0030**

Client Project #
27213169.22 - B

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
D. Coleman

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #
SID

Immediately Packed on Ice: N Y

Date Results Needed
SID

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
801	G	NPW	-	2-13-23	1555	2
802		NPW			1100	2
803		NPW			1131	2
804		NPW			1235	2
805		NPW			1326	2
806R		NPW			1140	2
DUPLICATE		NPW			1145	2
806L ^{MS}		NPW			1150	2
806R ^{MSD}		NPW			1155	2

RA226, RA228 1L-HDPE-Add HNO3

SDG # **L1585977**
F178

Acctnum: **AQUAOPKS**
 Template: **T198905**
 Prelogin: **P979164**
 PM: **206 - Jeff Carr**
 PB:
 Shipped Via: **FedEX Ground**

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: **Report Separately and Combined.**

pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist	
COC Seal Present/Intact:	NP <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Samples returned via:
 UPS FedEx Courier

Tracking #

Relinquished by: (Signature)

Date:
2-14-23

Time:
1600

Received by: (Signature)
Alan Nelson 1630

Trip Blank Received: Yes (No)
 HCL / MeOH
 TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **NSA 16°C** Bottles Received:
0.510 = 0.5 18

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)
Yan Yu

Date: **2-15-23** Time: **1530**

Hold: Condition: **NCF / OK**

2

400

3

1000

1000

1000

1000

1000

1000

1000



SCS Engineers - KS

Sample Delivery Group: L1586403
Samples Received: 02/16/2023
Project Number: 27222162.00 - 5
Description: Evergy Sibley FAI CM

Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
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

Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	5	
Sr: Sample Results	6	
MW-807 L1586403-01	6	
MW-808 L1586403-02	7	
MW-809 L1586403-03	8	
MW-810 L1586403-04	9	
MW-811 L1586403-05	10	
MW-812 L1586403-06	11	
MW-813 L1586403-07	12	
MW-814 L1586403-08	13	
MW-815 L1586403-09	14	
MW-816 L1586403-10	15	
MW-817 L1586403-11	16	
MW-819 L1586403-12	17	
MW-820 L1586403-13	18	
MW-821 L1586403-14	19	
MW-822 L1586403-15	20	
DUPLICATE 1 L1586403-16	21	
Qc: Quality Control Summary	22	
Metals (ICP) by Method 6010D	22	
Gl: Glossary of Terms	26	
Al: Accreditations & Locations	27	
Sc: Sample Chain of Custody	28	

SAMPLE SUMMARY

MW-807 L1586403-01 GW

Collected by B. Coleman Collected date/time 02/13/23 14:25 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007556	1	02/17/23 08:34	02/17/23 15:05	ZSA	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW-808 L1586403-02 GW

Collected by B. Coleman Collected date/time 02/13/23 14:55 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007556	1	02/17/23 08:34	02/17/23 15:08	ZSA	Mt. Juliet, TN

MW-809 L1586403-03 GW

Collected by B. Coleman Collected date/time 02/13/23 14:45 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007556	1	02/17/23 08:34	02/17/23 14:13	ZSA	Mt. Juliet, TN

MW-810 L1586403-04 GW

Collected by B. Coleman Collected date/time 02/13/23 16:45 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007556	1	02/17/23 08:34	02/17/23 15:10	ZSA	Mt. Juliet, TN

MW-811 L1586403-05 GW

Collected by B. Coleman Collected date/time 02/13/23 17:17 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007556	1	02/17/23 08:34	02/17/23 15:13	ZSA	Mt. Juliet, TN

MW-812 L1586403-06 GW

Collected by B. Coleman Collected date/time 02/13/23 17:58 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007556	1	02/17/23 08:34	02/17/23 15:21	ZSA	Mt. Juliet, TN

MW-813 L1586403-07 GW

Collected by B. Coleman Collected date/time 02/13/23 13:40 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007572	1	02/17/23 11:30	02/20/23 16:05	ZSA	Mt. Juliet, TN

MW-814 L1586403-08 GW

Collected by B. Coleman Collected date/time 02/13/23 13:00 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007572	1	02/17/23 11:30	02/20/23 16:08	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-815 L1586403-09 GW

Collected by B. Coleman Collected date/time 02/13/23 12:40 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007572	1	02/17/23 11:30	02/20/23 16:10	ZSA	Mt. Juliet, TN

1 Cp

2 Tc

MW-816 L1586403-10 GW

Collected by B. Coleman Collected date/time 02/13/23 13:35 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007572	1	02/17/23 11:30	02/20/23 16:13	ZSA	Mt. Juliet, TN

3 Ss

4 Cn

MW-817 L1586403-11 GW

Collected by B. Coleman Collected date/time 02/13/23 13:00 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007844	1	02/17/23 12:57	02/19/23 19:08	ZSA	Mt. Juliet, TN

5 Sr

6 Qc

MW-819 L1586403-12 GW

Collected by B. Coleman Collected date/time 02/13/23 12:00 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007844	1	02/17/23 12:57	02/19/23 19:11	ZSA	Mt. Juliet, TN

7 Gl

8 Al

MW-820 L1586403-13 GW

Collected by B. Coleman Collected date/time 02/13/23 15:25 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007844	1	02/17/23 12:57	02/19/23 19:14	ZSA	Mt. Juliet, TN

9 Sc

MW-821 L1586403-14 GW

Collected by B. Coleman Collected date/time 02/14/23 11:50 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007844	1	02/17/23 12:57	02/19/23 19:17	ZSA	Mt. Juliet, TN

MW-822 L1586403-15 GW

Collected by B. Coleman Collected date/time 02/13/23 11:40 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2007844	1	02/17/23 12:57	02/19/23 19:19	ZSA	Mt. Juliet, TN

DUPLICATE 1 L1586403-16 GW

Collected by B. Coleman Collected date/time 02/13/23 00:00 Received date/time 02/16/23 15:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2008024	1	02/17/23 13:35	02/19/23 19:33	ZSA	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 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.



Jeff Carr
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	5.27		5.00	1	02/17/2023 15:05	WG2007556

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	02/17/2023 15:08	WG2007556

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	449		5.00	1	02/17/2023 14:13	WG2007556

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	48.5		5.00	1	02/17/2023 15:10	WG2007556

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	15.5		5.00	1	02/17/2023 15:13	WG2007556

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	02/17/2023 15:21	WG2007556

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	02/20/2023 16:05	WG2007572

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	5.83		5.00	1	02/20/2023 16:08	WG2007572

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	02/20/2023 16:10	WG2007572

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	02/20/2023 16:13	WG2007572

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	7.36		5.00	1	02/19/2023 19:08	WG2007844

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	02/19/2023 19:11	WG2007844

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	02/19/2023 19:14	WG2007844

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	02/19/2023 19:17	WG2007844

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	02/19/2023 19:19	WG2007844

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

DUPLICATE 1

Collected date/time: 02/13/23 00:00

SAMPLE RESULTS - 16

L1586403

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	496		5.00	1	02/19/2023 19:33	WG2008024

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

Method Blank (MB)

(MB) R3892420-1 02/17/23 14:08

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Molybdenum	U		1.16	5.00

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3892420-2 02/17/23 14:11

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	984	98.4	80.0-120	

4 Cn

5 Sr

L1586403-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1586403-03 02/17/23 14:13 • (MS) R3892420-4 02/17/23 14:19 • (MSD) R3892420-5 02/17/23 14:28

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Molybdenum	1000	449	1400	1420	95.2	97.4	1	75.0-125			1.54	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3892853-1 02/20/23 14:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Molybdenum	U		1.16	5.00

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3892853-2 02/20/23 14:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	993	99.3	80.0-120	

4 Cn

5 Sr

L1586375-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1586375-01 02/20/23 14:11 • (MS) R3892853-4 02/20/23 14:16 • (MSD) R3892853-5 02/20/23 14:19

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Molybdenum	1000	ND	998	990	99.8	99.0	1	75.0-125			0.812	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3892462-1 02/19/23 18:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Molybdenum	U		1.16	5.00

¹Cp

²Tc

³Ss

Laboratory Control Sample (LCS)

(LCS) R3892462-2 02/19/23 18:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Molybdenum	1000	964	96.4	80.0-120	

⁴Cn

⁵Sr

L1586204-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1586204-22 02/19/23 18:36 • (MS) R3892462-4 02/19/23 18:42 • (MSD) R3892462-5 02/19/23 18:44

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Molybdenum	1000	69.5	869	870	79.9	80.0	1	75.0-125			0.116	20

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3892460-1 02/19/23 19:09

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Molybdenum	U		1.16	5.00

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3892460-2 02/19/23 19:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	1020	102	80.0-120	

4 Cn

5 Sr

L1585315-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1585315-36 02/19/23 19:14 • (MS) R3892460-4 02/19/23 19:20 • (MSD) R3892460-5 02/19/23 19:22

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Molybdenum	1000		1030	1030	103	103	1	75.0-125			0.230	20

6 Qc

7 Gl

8 Al

9 Sc

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.

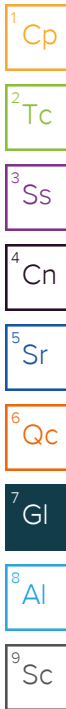
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ACCREDITATIONS & LOCATIONS

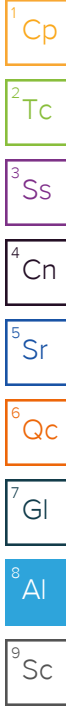
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



Company Name/Address:
SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

Billing Information:
Accounts Payable
8575 W. 110th Street
Overland Park, KS 66210

Pres
Chk

Report to:
Jason Franks

Email To:
jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:
Evergy Sibley FAI CM

City/State
Collected: **Sibley, MO**

Please Circle:
PT MT **ET**

Phone: **913-681-0030**

Client Project #
27222162.00 - 5

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
D. Coleman

Site/Facility ID #

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #
Date Results Needed
STD

Immediately Packed on Ice **N** **Y**

No.
of
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-807	G	GW	-	2-13-23	1425	1
MW-808		GW			1455	1
MW-809		GW			1445	1
MW-810		GW			1645	1
MW-811		GW			1717	1
MW-812		GW			1758	1
MW-813		GW			1340	1
MW-814		GW			1300	1
MW-815		GW			1240	1
MW-816		GW			1335	1

Mo - 6010 250m HDPE-HNO3

Analysis / Container / Preservative



MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

Sample # **F180**

Acctnum: **AQUAOPKS**

Template: **T208643**

Prelogin: **P979156**

PM: **206 - Jeff Carr**

PB:

Shipped Via:

Remarks | Sample # (lab only)

-01
-02
-03
-04
-05
-06
-07
-08
-09
-10

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> NP <input type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
IF Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Samples returned via:
 UPS FedEx Courier

Tracking #

Relinquished by: (Signature) *[Signature]*
Date: **2-14-23**
Time: **1600**

Received by: (Signature) **2-14-23**
Gilan Nelson 1630

Received by: (Signature)
Received for lab by: (Signature) *[Signature]*

Trip Blank Received: Yes/No No
HCL / MeOH TBR
Temp: **NSA 16°C**
Bottles Received: **5.4 to 5.4 17**
Date: **2-15-23** Time: **1530**

If preservation required by Login: Date/Time
Hold:
Condition: **NCF** **OK**

Company Name/Address: **SCS Engineers - KS**
 8575 W. 110th Street
 Overland Park, KS 66210

Billing Information:
 Accounts Payable
 8575 W. 110th Street
 Overland Park, KS 66210

Report to: **Jason Franks**

Project Description: **Energy Sibley FAI CM**

Client Project #: **27222162.00 - 5**

Lab Project #: **AQUAOPKS-SIBLEY**

Site/State Collected: **Sibley, Mo**

Please Circle: **PT MT LT ET**

Pres Chk: **LT**

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace
 PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

Phone: **913-681-0030**

Collected by (print): **D. Coleman**

Collected by (signature): *[Signature]*

Rush? (Lab MUST Be Notified)
 Same Day _____ Five Day _____
 Next Day _____ 5 Day (Rad Only) _____
 Two Day _____ 10 Day (Rad Only) _____
 Three Day _____

Date Results Needed: **SID**

Quote #

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis	Container	Preservative	Remarks	Sample # (lab only)
MW-817	GA	GW	-	2-13-23	1300	1	X				-11
MW-818		GW				1	X				-12
MW-819		GW		2-13-23	1200	1	X				-13
MW-820		GW		2-13-23	1525	1	X				-14
MW-821		GW		2-14-23	1150	1	X				-15
MW-822		GW		2-13-23	1110	1	X				-16
MS/MSD		GW		2-13-23		1	X				
MS/MSD		GW				1	X				
DUPLICATE 1		GW		2-13-23		1	X				
DUPLICATE 2		GW				1	X				

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

Samples returned via: UPS FedEx Courier

Tracking #

Relinquished by: (Signature) *[Signature]* Date: **2-14-23** Time: **1100**

Received by: (Signature) *[Signature]* Date: **2-14-23** Time: **1630**

Relinquished by: (Signature) Date: Time:

Received by: (Signature) Date: Time:

Relinquished by: (Signature) Date: Time:

Received for lab by: (Signature) *[Signature]* Date: **2-15-23** Time: **1530**

Trip Blank Received: Yes No
 HCL/ MeOH
 TBR

Temp: **NSA 16°C** Bottles Received: **5-4-10 = 5-4-17**

Sample Receipt Checklist

COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
IF Applicable		
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N

If preservation required by Login: Date/Time

Hold: **Condition: NCF OK**

SCS Engineers - KS

Sample Delivery Group: L1618676
Samples Received: 05/20/2023
Project Number: 27213169.23 - B
Description: Evergy Sibley Gen Station GW 2022-23

Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
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 National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	2 Tc
Ss: Sample Summary	3	3 Ss
Cn: Case Narrative	5	4 Cn
Sr: Sample Results	6	5 Sr
MW-801 L1618676-01	6	6 Qc
MW-802 L1618676-02	7	7 Gl
MW-803 L1618676-03	8	8 Al
MW-804 L1618676-04	9	9 Sc
MW-805 L1618676-05	10	
MW-806R L1618676-06	11	
DUPLICATE L1618676-07	12	
Qc: Quality Control Summary	13	
Gravimetric Analysis by Method 2540 C-2011	13	
Wet Chemistry by Method 9056A	15	
Mercury by Method 7470A	19	
Metals (ICP) by Method 6010D	20	
Metals (ICPMS) by Method 6020	21	
Gl: Glossary of Terms	22	
Al: Accreditations & Locations	23	
Sc: Sample Chain of Custody	24	

SAMPLE SUMMARY

MW-801 L1618676-01 GW

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 13:50
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2065870	1	05/24/23 12:53	05/24/23 15:53	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2072468	1	06/07/23 14:46	06/07/23 14:46	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2072073	1	06/12/23 20:53	06/13/23 10:58	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2064225	1	05/27/23 01:58	05/29/23 16:33	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2064240	1	05/28/23 09:17	05/28/23 13:46	SJM	Mt. Juliet, TN



MW-802 L1618676-02 GW

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 14:30
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2065870	1	05/24/23 12:53	05/24/23 15:53	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2072468	1	06/07/23 14:58	06/07/23 14:58	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2072073	1	06/12/23 20:53	06/13/23 11:02	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2064225	1	05/27/23 01:58	05/29/23 16:36	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2064240	1	05/28/23 09:17	05/28/23 13:49	SJM	Mt. Juliet, TN



MW-803 L1618676-03 GW

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 14:15
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2065870	1	05/24/23 12:53	05/24/23 15:53	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2072468	1	06/07/23 15:11	06/07/23 15:11	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2072073	1	06/12/23 20:53	06/13/23 11:04	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2064225	1	05/27/23 01:58	05/29/23 16:38	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2064240	1	05/28/23 09:17	05/28/23 13:59	SJM	Mt. Juliet, TN



MW-804 L1618676-04 GW

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 14:50
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2065893	1	05/25/23 09:40	05/25/23 11:02	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2072468	1	06/07/23 15:36	06/07/23 15:36	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2072073	1	06/12/23 20:53	06/13/23 11:06	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2064225	1	05/27/23 01:58	05/29/23 16:41	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2064240	1	05/28/23 09:17	05/28/23 14:03	SJM	Mt. Juliet, TN

MW-805 L1618676-05 GW

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 15:15
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2065870	1	05/24/23 12:53	05/24/23 15:53	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2072468	1	06/07/23 16:39	06/07/23 16:39	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2072073	1	06/12/23 20:53	06/13/23 11:10	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2064225	1	05/27/23 01:58	05/29/23 16:44	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2064240	1	05/28/23 09:17	05/28/23 14:06	SJM	Mt. Juliet, TN

SAMPLE SUMMARY

MW-806R L1618676-06 GW

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 13:10
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2065893	1	05/25/23 09:40	05/25/23 11:02	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2073212	1	06/07/23 16:14	06/07/23 16:14	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2073212	5	06/07/23 16:27	06/07/23 16:27	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2072073	1	06/12/23 20:53	06/13/23 10:47	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2064225	1	05/27/23 01:58	05/29/23 15:55	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2064240	1	05/28/23 09:17	05/28/23 12:30	SJM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

DUPLICATE L1618676-07 GW

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 15:10
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2065893	1	05/25/23 09:40	05/25/23 11:02	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2073212	1	06/07/23 18:15	06/07/23 18:15	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2073212	5	06/07/23 18:28	06/07/23 18:28	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2072073	1	06/12/23 20:53	06/13/23 11:12	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2064225	1	05/27/23 01:58	05/29/23 16:46	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2064240	1	05/28/23 09:17	05/28/23 14:10	SJM	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 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.



Jeff Carr
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	553000		10000	1	05/24/2023 15:53	WG2065870

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	104000		1000	1	06/07/2023 14:46	WG2072468
Fluoride	170		150	1	06/07/2023 14:46	WG2072468
Sulfate	40600		5000	1	06/07/2023 14:46	WG2072468

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/13/2023 10:58	WG2072073

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	137		5.00	1	05/29/2023 16:33	WG2064225
Boron	ND		200	1	05/29/2023 16:33	WG2064225
Calcium	115000		1000	1	05/29/2023 16:33	WG2064225
Chromium	15.0		10.0	1	05/29/2023 16:33	WG2064225
Lithium	ND		15.0	1	05/29/2023 16:33	WG2064225
Molybdenum	ND		5.00	1	05/29/2023 16:33	WG2064225

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	05/28/2023 13:46	WG2064240
Cadmium	ND		1.00	1	05/28/2023 13:46	WG2064240
Cobalt	ND		2.00	1	05/28/2023 13:46	WG2064240
Lead	ND		2.00	1	05/28/2023 13:46	WG2064240
Selenium	2.21		2.00	1	05/28/2023 13:46	WG2064240

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	351000		10000	1	05/24/2023 15:53	WG2065870

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	44800		1000	1	06/07/2023 14:58	WG2072468
Fluoride	160		150	1	06/07/2023 14:58	WG2072468
Sulfate	57600		5000	1	06/07/2023 14:58	WG2072468

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/13/2023 11:02	WG2072073

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	178		5.00	1	05/29/2023 16:36	WG2064225
Boron	ND		200	1	05/29/2023 16:36	WG2064225
Calcium	67100		1000	1	05/29/2023 16:36	WG2064225
Chromium	ND		10.0	1	05/29/2023 16:36	WG2064225
Lithium	ND		15.0	1	05/29/2023 16:36	WG2064225
Molybdenum	ND		5.00	1	05/29/2023 16:36	WG2064225

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	05/28/2023 13:49	WG2064240
Cadmium	ND		1.00	1	05/28/2023 13:49	WG2064240
Cobalt	ND		2.00	1	05/28/2023 13:49	WG2064240
Lead	ND		2.00	1	05/28/2023 13:49	WG2064240
Selenium	3.53		2.00	1	05/28/2023 13:49	WG2064240

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	489000		10000	1	05/24/2023 15:53	WG2065870

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	22600		1000	1	06/07/2023 15:11	WG2072468
Fluoride	293		150	1	06/07/2023 15:11	WG2072468
Sulfate	103000		5000	1	06/07/2023 15:11	WG2072468

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/13/2023 11:04	WG2072073

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	126		5.00	1	05/29/2023 16:38	WG2064225
Boron	2960		200	1	05/29/2023 16:38	WG2064225
Calcium	109000		1000	1	05/29/2023 16:38	WG2064225
Chromium	ND		10.0	1	05/29/2023 16:38	WG2064225
Lithium	ND		15.0	1	05/29/2023 16:38	WG2064225
Molybdenum	ND		5.00	1	05/29/2023 16:38	WG2064225

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	2.63		2.00	1	05/28/2023 13:59	WG2064240
Cadmium	ND		1.00	1	05/28/2023 13:59	WG2064240
Cobalt	ND		2.00	1	05/28/2023 13:59	WG2064240
Lead	ND		2.00	1	05/28/2023 13:59	WG2064240
Selenium	ND		2.00	1	05/28/2023 13:59	WG2064240

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	621000		13300	1	05/25/2023 11:02	WG2065893

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	20300		1000	1	06/07/2023 15:36	WG2072468
Fluoride	247		150	1	06/07/2023 15:36	WG2072468
Sulfate	35300		5000	1	06/07/2023 15:36	WG2072468

3 Ss

4 Cn

5 Sr

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/13/2023 11:06	WG2072073

6 Qc

7 Gl

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	518		5.00	1	05/29/2023 16:41	WG2064225
Boron	7060		200	1	05/29/2023 16:41	WG2064225
Calcium	150000		1000	1	05/29/2023 16:41	WG2064225
Chromium	ND		10.0	1	05/29/2023 16:41	WG2064225
Lithium	23.4		15.0	1	05/29/2023 16:41	WG2064225
Molybdenum	ND		5.00	1	05/29/2023 16:41	WG2064225

8 Al

9 Sc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	2.69		2.00	1	05/28/2023 14:03	WG2064240
Cadmium	ND		1.00	1	05/28/2023 14:03	WG2064240
Cobalt	ND		2.00	1	05/28/2023 14:03	WG2064240
Lead	ND		2.00	1	05/28/2023 14:03	WG2064240
Selenium	ND		2.00	1	05/28/2023 14:03	WG2064240

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	323000		10000	1	05/24/2023 15:53	WG2065870

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	7130		1000	1	06/07/2023 16:39	WG2072468
Fluoride	197		150	1	06/07/2023 16:39	WG2072468
Sulfate	44000		5000	1	06/07/2023 16:39	WG2072468

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/13/2023 11:10	WG2072073

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	148		5.00	1	05/29/2023 16:44	WG2064225
Boron	ND		200	1	05/29/2023 16:44	WG2064225
Calcium	89400		1000	1	05/29/2023 16:44	WG2064225
Chromium	ND		10.0	1	05/29/2023 16:44	WG2064225
Lithium	ND		15.0	1	05/29/2023 16:44	WG2064225
Molybdenum	ND		5.00	1	05/29/2023 16:44	WG2064225

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	05/28/2023 14:06	WG2064240
Cadmium	ND		1.00	1	05/28/2023 14:06	WG2064240
Cobalt	ND		2.00	1	05/28/2023 14:06	WG2064240
Lead	ND		2.00	1	05/28/2023 14:06	WG2064240
Selenium	ND		2.00	1	05/28/2023 14:06	WG2064240

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	728000		13300	1	05/25/2023 11:02	WG2065893

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	29400		1000	1	06/07/2023 16:14	WG2073212
Fluoride	208		150	1	06/07/2023 16:14	WG2073212
Sulfate	291000		25000	5	06/07/2023 16:27	WG2073212

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/13/2023 10:47	WG2072073

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	69.2	O1	5.00	1	05/29/2023 15:55	WG2064225
Boron	3140	O1	200	1	05/29/2023 15:55	WG2064225
Calcium	164000	O1 V	1000	1	05/29/2023 15:55	WG2064225
Chromium	ND		10.0	1	05/29/2023 15:55	WG2064225
Lithium	19.9		15.0	1	05/29/2023 15:55	WG2064225
Molybdenum	1210	O1	5.00	1	05/29/2023 15:55	WG2064225

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	3.59		2.00	1	05/28/2023 12:30	WG2064240
Cadmium	ND		1.00	1	05/28/2023 12:30	WG2064240
Cobalt	ND		2.00	1	05/28/2023 12:30	WG2064240
Lead	ND		2.00	1	05/28/2023 12:30	WG2064240
Selenium	ND		2.00	1	05/28/2023 12:30	WG2064240

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	727000		13300	1	05/25/2023 11:02	WG2065893

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	28600		1000	1	06/07/2023 18:15	WG2073212
Fluoride	197		150	1	06/07/2023 18:15	WG2073212
Sulfate	290000		25000	5	06/07/2023 18:28	WG2073212

3 Ss

4 Cn

5 Sr

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/13/2023 11:12	WG2072073

6 Qc

7 Gl

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	68.9		5.00	1	05/29/2023 16:46	WG2064225
Boron	3140		200	1	05/29/2023 16:46	WG2064225
Calcium	162000		1000	1	05/29/2023 16:46	WG2064225
Chromium	ND		10.0	1	05/29/2023 16:46	WG2064225
Lithium	19.8		15.0	1	05/29/2023 16:46	WG2064225
Molybdenum	1200		5.00	1	05/29/2023 16:46	WG2064225

8 Al

9 Sc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	3.69		2.00	1	05/28/2023 14:10	WG2064240
Cadmium	ND		1.00	1	05/28/2023 14:10	WG2064240
Cobalt	ND		2.00	1	05/28/2023 14:10	WG2064240
Lead	ND		2.00	1	05/28/2023 14:10	WG2064240
Selenium	ND		2.00	1	05/28/2023 14:10	WG2064240

Method Blank (MB)

(MB) R3929590-1 05/24/23 15:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Dissolved Solids	U	↓	10000	10000

1 Cp

2 Tc

3 Ss

L1618346-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1618346-01 05/24/23 15:53 • (DUP) R3929590-3 05/24/23 15:53

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	358000	361000	1	0.834		5

4 Cn

5 Sr

L1618346-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1618346-02 05/24/23 15:53 • (DUP) R3929590-4 05/24/23 15:53

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	325000	326000	1	0.307		5

6 Qc

7 Gl

8 Al

Laboratory Control Sample (LCS)

(LCS) R3929590-2 05/24/23 15:53

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Dissolved Solids	8800000	7970000	90.6	77.3-123	

9 Sc

Method Blank (MB)

(MB) R3929994-1 05/25/23 11:02

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

1 Cp

2 Tc

3 Ss

L1618007-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1618007-01 05/25/23 11:02 • (DUP) R3929994-3 05/25/23 11:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	180000	179000	1	0.557		5

4 Cn

5 Sr

L1618024-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1618024-01 05/25/23 11:02 • (DUP) R3929994-4 05/25/23 11:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	99000	100000	1	1.01		5

6 Qc

7 Gl

8 Al

Laboratory Control Sample (LCS)

(LCS) R3929994-2 05/25/23 11:02

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8550000	97.2	77.3-123	

9 Sc

Method Blank (MB)

(MB) R3934286-1 06/06/23 19:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1618658-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1618658-04 06/07/23 09:56 • (DUP) R3934286-3 06/07/23 10:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	3930	3850	1	2.05		15
Fluoride	254	245	1	3.61		15
Sulfate	19200	18800	1	1.91		15

L1618676-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1618676-05 06/07/23 16:39 • (DUP) R3934286-6 06/07/23 16:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	7130	7210	1	1.12		15
Fluoride	197	196	1	0.458		15
Sulfate	44000	44200	1	0.462		15

Laboratory Control Sample (LCS)

(LCS) R3934286-2 06/06/23 19:49

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	39400	98.5	80.0-120	
Fluoride	8000	8190	102	80.0-120	
Sulfate	40000	40100	100	80.0-120	

L1618658-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1618658-04 06/07/23 09:56 • (MS) R3934286-4 06/07/23 10:21 • (MSD) R3934286-5 06/07/23 10:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	3930	53000	52400	98.1	97.0	1	80.0-120			1.10	15
Fluoride	5000	254	5310	5260	101	100	1	80.0-120			0.851	15
Sulfate	50000	19200	67000	66300	95.5	94.3	1	80.0-120			0.948	15

L1618676-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1618676-05 06/07/23 16:39 • (MS) R3934286-7 06/07/23 17:04

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	7130	55000	95.7	1	80.0-120	
Fluoride	5000	197	5160	99.2	1	80.0-120	
Sulfate	50000	44000	88800	89.8	1	80.0-120	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R3934559-1 06/07/23 11:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

L1618676-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1618676-06 06/07/23 16:14 • (DUP) R3934559-3 06/07/23 16:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	29400	29700	1	1.06		15
Fluoride	208	219	1	5.48		15

L1618676-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1618676-06 06/07/23 16:27 • (DUP) R3934559-4 06/07/23 16:54

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	291000	287000	5	1.11		15

L1618658-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1618658-06 06/08/23 03:12 • (DUP) R3934559-7 06/08/23 03:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	3240	3140	1	3.11		15
Fluoride	268	294	1	9.27		15
Sulfate	19400	19600	1	1.16		15

Laboratory Control Sample (LCS)

(LCS) R3934559-2 06/07/23 11:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	38200	95.5	80.0-120	
Fluoride	8000	7460	93.3	80.0-120	
Sulfate	40000	37700	94.3	80.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1618676-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1618676-06 06/07/23 16:14 • (MS) R3934559-5 06/07/23 17:08 • (MSD) R3934559-6 06/07/23 17:21

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	29400	75900	76400	93.1	93.9	1	80.0-120			0.548	15
Fluoride	5000	208	4720	4770	90.3	91.3	1	80.0-120			1.12	15
Sulfate	50000	287000	317000	319000	61.2	65.2	1	80.0-120	<u>EV</u>	<u>EV</u>	0.618	15

L1618658-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1618658-06 06/08/23 03:12 • (MS) R3934559-8 06/08/23 03:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	3240	50600	94.8	1	80.0-120	
Fluoride	5000	268	4730	89.3	1	80.0-120	
Sulfate	50000	19400	65400	92.1	1	80.0-120	

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

Method Blank (MB)

(MB) R3936206-1 06/13/23 10:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.100	0.200

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3936206-2 06/13/23 10:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	3.07	102	80.0-120	

4 Cn

5 Sr

L1618676-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1618676-06 06/13/23 10:47 • (MS) R3936206-3 06/13/23 10:49 • (MSD) R3936206-4 06/13/23 10:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	ND	3.37	3.22	112	107	1	75.0-125			4.43	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3930332-1 05/29/23 15:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	U		0.736	5.00
Boron	U		20.0	200
Calcium	U		79.3	1000
Chromium	U		1.40	10.0
Lithium	U		4.85	15.0
Molybdenum	U		1.16	5.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3930332-2 05/29/23 15:52

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	1030	103	80.0-120	
Boron	1000	997	99.7	80.0-120	
Calcium	10000	9940	99.4	80.0-120	
Chromium	1000	1010	101	80.0-120	
Lithium	1000	1030	103	80.0-120	
Molybdenum	1000	1020	102	80.0-120	

L1618676-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1618676-06 05/29/23 15:55 • (MS) R3930332-4 05/29/23 16:00 • (MSD) R3930332-5 05/29/23 16:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	69.2	1090	1110	102	104	1	75.0-125			1.56	20
Boron	1000	3140	4080	4070	94.0	92.7	1	75.0-125			0.325	20
Calcium	10000	164000	169000	168000	57.5	38.8	1	75.0-125	V	V	1.11	20
Chromium	1000	ND	988	985	98.8	98.5	1	75.0-125			0.298	20
Lithium	1000	19.9	1070	1060	105	104	1	75.0-125			0.390	20
Molybdenum	1000	1210	2200	2230	99.0	102	1	75.0-125			1.31	20

Method Blank (MB)

(MB) R3930182-1 05/28/23 12:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic	U		0.180	2.00
Cadmium	U		0.150	1.00
Cobalt	U		0.0596	2.00
Lead	U		0.849	2.00
Selenium	U		0.300	2.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3930182-2 05/28/23 12:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	50.0	49.6	99.1	80.0-120	
Cadmium	50.0	49.7	99.5	80.0-120	
Cobalt	50.0	49.0	97.9	80.0-120	
Lead	50.0	45.6	91.3	80.0-120	
Selenium	50.0	51.3	103	80.0-120	

L1618676-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1618676-06 05/28/23 12:30 • (MS) R3930182-4 05/28/23 12:37 • (MSD) R3930182-5 05/28/23 12:40

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	50.0	3.59	52.6	52.4	98.1	97.7	1	75.0-125			0.390	20
Cadmium	50.0	ND	49.9	49.7	99.7	99.5	1	75.0-125			0.264	20
Cobalt	50.0	ND	47.7	47.5	95.2	94.8	1	75.0-125			0.362	20
Lead	50.0	ND	45.9	44.5	91.7	89.0	1	75.0-125			3.05	20
Selenium	50.0	ND	49.8	51.1	99.7	102	1	75.0-125			2.48	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

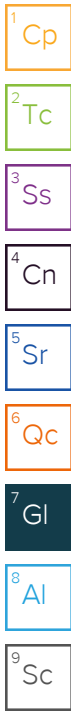
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

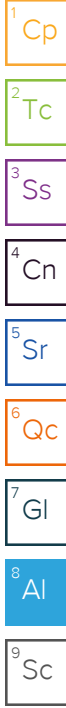
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



Company Name/Address: **SCS Engineers - KS**
 8575 W. 110th Street
 Overland Park, KS 66210

Billing Information:
Accounts Payable
 8575 W. 110th Street
 Overland Park, KS 66210

Report to: **Jason Franks**
 Email To: **jfranks@scsengineers.com; jrockhold@scsengine**

Project Description: **Energy Sibley Gen Station GW 2022-23**
 City/State Collected: **Sibley MO**
 Please Circle: PT MT ET

Phone: **913-681-0030**
 Client Project # **27213169.23 - B**
 Lab Project # **AQUAOPKS-SIBLEY**

Collected by (print): **Matt VanderPutten**
 Site/Facility ID #
 P.O. #

Collected by (signature): *Matt VanderPutten*
Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #
 Date Results Needed: **Std**

Immediately
 Packed on Ice N Y

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

No. of Cntrs

Chloride, F, SO4 125mlHDPE-NoPres

Metals 250mlHDPE-HNO3

TDS 1L-HDPE NoPres

Chain of Custody Page ___ of ___

Pace
 PEOPLE ADVANCING SCIENCE

MT JULIET, TN
 12065 Lebanon Rd Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # **1618676**
E027

Acctnum: **AQUAOPKS**
 Template: **T198904**
 Prelogin: **P999252**
 PM: **206 - Jeff Carr**
 PB:

Shipped Via: **FedEX Ground**

Remarks

Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride, F, SO4 125mlHDPE-NoPres	Metals 250mlHDPE-HNO3	TDS 1L-HDPE NoPres	Remarks	Sample # (lab only)
MW-801	Grab	GW	NA	5/18/23	1350	3	X	X	X		-01
MW-802		GW			1430	3	X	X	X		-02
MW-803		GW			1415	3	X	X	X		-03
MW-804		GW			1450	3	X	X	X		-04
MW-805		GW			1515	3	X	X	X		-05
MW-806R		GW			1310	3	X	X	X		-06
MS/MSD		GW			1510	3	X	X	X		-06
DUPLICATE		GW			1510	3	X	X	X		-07

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other _____

Remarks: **6010 - Ba,B,Ca,Cr,Li,Mo**
6020 - As,Cd,Co,Pb,Se
7470 - Hg

Samples returned via:
 UPS FedEx Courier _____

Tracking # **5016 1230 9197**

pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist
 COC Seal Present/Intact: N
 COC Signed/Accurate: N
 Bottles arrive intact: N
 Correct bottles used: N
 Sufficient volume sent: N
 If Applicable
 VOA Zero Headspace: N
 Preservation Correct/Checked: N
 RAD Screen <0.5 mR/hr: N

Relinquished by: (Signature) *Matt VanderPutten* Date: **5/19/23** Time: **1000**

Received by: (Signature) _____ Trip Blank Received: Yes/No HCL/MeOH TBR

Temp: **5.5 °C** Bottles Received: **NSA7 5.540-5.5**

Relinquished by: (Signature) _____ Date: _____ Time: _____

Received for lab by: (Signature) *FW* Date: **5/20/23** Time: **9:20**

Hold: _____ Condition: **NCF 1 (OK)**

SCS Engineers - KS

Sample Delivery Group: L1618494
Samples Received: 05/20/2023
Project Number: 27213169.23 - B
Description: Evergy Sibley Gen Station GW 2022-23

Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



Jason Romer
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.

TABLE OF CONTENTS

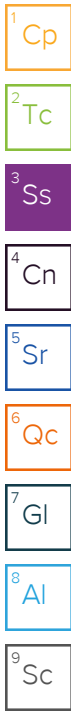
Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	2 Tc
Ss: Sample Summary	3	3 Ss
Cn: Case Narrative	5	4 Cn
Sr: Sample Results	6	5 Sr
801 L1618494-01	6	
802 L1618494-02	7	
803 L1618494-03	8	
804 L1618494-04	9	
805 L1618494-05	10	6 Qc
806R L1618494-06	11	
DUPLICATE L1618494-07	12	7 Gl
Qc: Quality Control Summary	13	8 Al
Radiochemistry by Method 904/9320	13	
Radiochemistry by Method SM7500Ra B M	14	9 Sc
Gl: Glossary of Terms	16	
Al: Accreditations & Locations	17	
Sc: Sample Chain of Custody	18	

SAMPLE SUMMARY

801 L1618494-01 Non-Potable Water

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 13:50
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2077790	1	06/15/23 07:52	06/19/23 11:25	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2082907	1	06/23/23 17:41	06/27/23 22:45	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2082907	1	06/23/23 17:41	06/27/23 22:45	RGT	Mt. Juliet, TN



802 L1618494-02 Non-Potable Water

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 14:30
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2077790	1	06/15/23 07:52	06/19/23 11:25	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2082907	1	06/23/23 17:41	06/27/23 22:45	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2082907	1	06/23/23 17:41	06/27/23 22:45	RGT	Mt. Juliet, TN

803 L1618494-03 Non-Potable Water

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 14:15
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2077790	1	06/15/23 07:52	06/19/23 11:25	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2082907	1	06/23/23 17:41	06/27/23 22:45	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2082907	1	06/23/23 17:41	06/27/23 22:45	RGT	Mt. Juliet, TN

804 L1618494-04 Non-Potable Water

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 14:50
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2077790	1	06/15/23 07:52	06/19/23 11:25	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2082907	1	06/23/23 17:41	06/27/23 22:45	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2082907	1	06/23/23 17:41	06/27/23 22:45	RGT	Mt. Juliet, TN

805 L1618494-05 Non-Potable Water

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 15:15
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2077790	1	06/15/23 07:52	06/19/23 11:25	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2082907	1	06/23/23 17:41	06/27/23 22:45	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2082907	1	06/23/23 17:41	06/27/23 22:45	RGT	Mt. Juliet, TN

806R L1618494-06 Non-Potable Water

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 15:10
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2077790	1	06/15/23 07:52	06/19/23 11:25	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2082914	1	06/26/23 13:48	06/27/23 18:10	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2082914	1	06/26/23 13:48	06/27/23 18:10	RRE	Mt. Juliet, TN

SAMPLE SUMMARY

DUPLICATE L1618494-07 Non-Potable Water

Collected by: Matt Vander Putten
 Collected date/time: 05/18/23 15:10
 Received date/time: 05/20/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2077790	1	06/15/23 07:52	06/19/23 11:25	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2082914	1	06/26/23 13:48	06/27/23 18:10	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2082914	1	06/26/23 13:48	06/27/23 18:10	RRE	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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.



Jason Romer
Project Manager

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	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0571	<u>U</u>	0.263	0.475	06/19/2023 11:25	WG2077790
(T) Barium	91.4			30.0-143	06/19/2023 11:25	WG2077790
(T) Yttrium	110			30.0-136	06/19/2023 11:25	WG2077790

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.243	<u>J</u>	0.366	0.600	06/27/2023 22:45	WG2082907

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.186	<u>J</u>	0.254	0.366	06/27/2023 22:45	WG2082907
(T) Barium-133	86.1			30.0-143	06/27/2023 22:45	WG2082907

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	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.754		0.308	0.536	06/19/2023 11:25	WG2077790
(T) Barium	96.8			30.0-143	06/19/2023 11:25	WG2077790
(T) Yttrium	94.5			30.0-136	06/19/2023 11:25	WG2077790

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.03		0.380	0.579	06/27/2023 22:45	WG2082907

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.275		0.222	0.220	06/27/2023 22:45	WG2082907
(T) Barium-133	84.0			30.0-143	06/27/2023 22:45	WG2082907

- 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	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.126	<u>U</u>	0.319	0.577	06/19/2023 11:25	WG2077790
(T) Barium	89.6			30.0-143	06/19/2023 11:25	WG2077790
(T) Yttrium	121			30.0-136	06/19/2023 11:25	WG2077790

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.495	<u>J</u>	0.461	0.673	06/27/2023 22:45	WG2082907

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.495		0.333	0.346	06/27/2023 22:45	WG2082907
(T) Barium-133	71.7			30.0-143	06/27/2023 22:45	WG2082907

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.57		0.352	0.593	06/19/2023 11:25	WG2077790
(T) Barium	84.6			30.0-143	06/19/2023 11:25	WG2077790
(T) Yttrium	118			30.0-136	06/19/2023 11:25	WG2077790

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.04		0.487	0.695	06/27/2023 22:45	WG2082907

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.471		0.336	0.362	06/27/2023 22:45	WG2082907
(T) Barium-133	75.7			30.0-143	06/27/2023 22:45	WG2082907

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	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.442	J	0.261	0.460	06/19/2023 11:25	WG2077790
(T) Barium	92.8			30.0-143	06/19/2023 11:25	WG2077790
(T) Yttrium	117			30.0-136	06/19/2023 11:25	WG2077790

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.01		0.404	0.509	06/27/2023 22:45	WG2082907

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.565		0.309	0.219	06/27/2023 22:45	WG2082907
(T) Barium-133	74.8			30.0-143	06/27/2023 22:45	WG2082907

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.943		0.281	0.481	06/19/2023 11:25	WG2077790
(T) Barium	86.6			30.0-143	06/19/2023 11:25	WG2077790
(T) Yttrium	102			30.0-136	06/19/2023 11:25	WG2077790

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

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.15		0.405	0.640	06/27/2023 18:10	WG2082914

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.211	J	0.291	0.422	06/27/2023 18:10	WG2082914
(T) Barium-133	69.4			30.0-143	06/27/2023 18:10	WG2082914

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.000	<u>U</u>	0.277	0.504	06/19/2023 11:25	WG2077790
(T) Barium	79.4			30.0-143	06/19/2023 11:25	WG2077790
(T) Yttrium	110			30.0-136	06/19/2023 11:25	WG2077790

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.634		0.461	0.618	06/27/2023 18:10	WG2082914

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.634		0.368	0.357	06/27/2023 18:10	WG2082914
(T) Barium-133	79.0			30.0-143	06/27/2023 18:10	WG2082914

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3938896-1 06/19/23 11:25

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.0139	<u>U</u>	0.133	0.242
(T) Barium	103		103	
(T) Yttrium	110		110	

L1618517-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1618517-01 06/19/23 11:25 • (DUP) R3938896-5 06/19/23 11:25

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.000	0.259	0.472	0.797	0.404	0.472	1	200	1.66		20	3
(T) Barium	85.4			86.3	86.3							
(T) Yttrium	104			106	106							

Laboratory Control Sample (LCS)

(LCS) R3938896-2 06/19/23 11:25

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.54	90.7	80.0-120	
(T) Barium			113		
(T) Yttrium			101		

L1618494-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1618494-06 06/19/23 11:25 • (MS) R3938896-3 06/19/23 11:25 • (MSD) R3938896-4 06/19/23 11:25

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	0.943	9.79	10.9	88.4	99.1	1	70.0-130			10.3		20
(T) Barium		86.6			93.2	86.7							
(T) Yttrium		102			99.0	101							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3942559-1 06/27/23 22:45

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	0.0136	<u>U</u>	0.0408	0.0733
(T) Barium-133	88.5		88.5	

L1618557-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1618557-01 06/27/23 22:45 • (DUP) R3942559-5 06/27/23 22:45

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-226	0.0792	0.177	0.306	0.0386	0.227	0.306	1	68.9	0.141	<u>U</u>	20	3
(T) Barium-133	79.8			77.0	77.0							

Laboratory Control Sample (LCS)

(LCS) R3942559-2 06/27/23 22:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.01	5.71	114	80.0-120	
(T) Barium-133			83.5		

L1619553-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1619553-01 06/27/23 22:45 • (MS) R3942559-3 06/27/23 22:45 • (MSD) R3942559-4 06/27/23 22:45

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	20.0	-0.0755	20.5	21.1	103	106	1	75.0-125			2.84		20
(T) Barium-133		72.6			90.4	92.4							

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3942074-1 06/27/23 18:10

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	-0.00666	<u>U</u>	0.0351	0.0839
(T) Barium-133	77.3		77.3	

1 Cp

2 Tc

3 Ss

4 Cn

L1621302-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1621302-07 06/27/23 18:11 • (DUP) R3942074-5 06/27/23 18:10

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	0.00790	0.186	0.357	0.218	0.267	0.357	1	186	0.647	<u>J</u>	20	3
(T) Barium-133	95.9			81.7	81.7							

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3942074-2 06/27/23 18:10

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.59	112	80.0-120	
(T) Barium-133			75.0		

7 Gl

8 Al

9 Sc

L1618494-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1618494-06 06/27/23 18:10 • (MS) R3942074-3 06/27/23 18:10 • (MSD) R3942074-4 06/27/23 18:10

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	20.0	0.211	19.0	19.4	94.0	96.0	1	75.0-125			2.13		20
(T) Barium-133		69.4			79.7	90.8							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCREDITATIONS & LOCATIONS

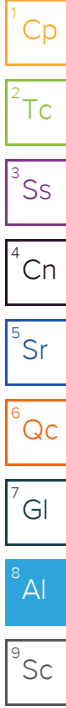
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Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	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.



Company Name/Address: SCS Engineers - KS 8575 W. 110th Street Overland Park, KS 66210		Billing Information: Accounts Payable 8575 W. 110th Street Overland Park, KS 66210		Pres Chk	Analysis / Container / Preservative						Chain of Custody Page ___ of ___
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Report to: Jason Franks	Email To: jfranks@scsengineers.com; rockhold@scsengine
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Project Description: Energy Sibley Gen Station GW 2022-23	City/State Collected: Sibly MO	Please Circle: PT MT <input checked="" type="radio"/> ET
---	--	---

Phone: 913-681-0030	Client Project # 27213169.23 - B	Lab Project # AQUAOPKS-SIBLEY
----------------------------	--	---

Collected by (print): <i>Matt Vander Patten</i>	Site/Facility ID #	P.O. #
--	--------------------	--------

Collected by (signature): <i>Matt Vander Patten</i>	Rush? (Lab MUST Be Notified) Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day ___	Quote #	Date Results Needed Std	No. of Ctrs
--	---	---------	-----------------------------------	----------------

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Ctrs	Analysis / Container / Preservative						Remarks	Sample # (lab only)	
801	Grab	NPW	NA	5/18/23	1350	2	X								-01
802		NPW			1430	2	X								-02
803		NPW			1415	2	X								-03
804		NPW			1450	2	X								-04
805		NPW			1515	2	X								-05
806R		NPW			1510	2	X								-06
DUPLICATE		NPW			1510	2	X								-07
MS		NPW			1510	2	X								-06
MSD		NPW			1510	2	X								-06

* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____	Remarks: RA 226/228 - Report separately and combined.	pH _____ Temp _____ Flow _____ Other _____	Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N <u>If Applicable</u> VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N
--	---	---	---

Relinquished by: (Signature) <i>Matt Vander Patten</i>	Date: 5/19/23	Time: 1000	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 18.7°C Bottles Received: 18 19.1 + 0 = 19.1
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i> (7)	Date: 5.20.23 Time: 0920 Hold: Condition: NCF / OK

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # **41618494**
C065

Acctnum: **AQUAOPKS**
Template: **T198905**
Prelogin: **P999258**
PM: **206 - Jeff Carr**
PB:

Shipped Via: **FedEX Ground**

RA-226, RA-228 1L-HDPE-Add HNO3

SCS Engineers - KS

Sample Delivery Group: L1619283
Samples Received: 05/23/2023
Project Number: 27222162.23 - 1
Description: Evergy Sibley FAI CM 2023

Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
Project Manager

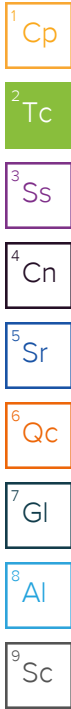
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Pace Analytical National

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

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	6
Sr: Sample Results	7
MW-807 L1619283-01	7
MW-808 L1619283-02	8
MW-809 L1619283-03	9
MW-810 L1619283-04	10
MW-811 L1619283-05	11
MW-812 L1619283-06	12
MW-813 L1619283-07	13
MW-814 L1619283-08	14
MW-815 L1619283-09	15
MW-816 L1619283-10	16
MW-817 L1619283-11	17
MW-819 L1619283-12	18
MW-820 L1619283-13	19
MW-821 L1619283-14	20
MW-822 L1619283-15	21
DUPLICATE 1 L1619283-16	22
DUPLICATE 2 L1619283-17	23
Qc: Quality Control Summary	24
Metals (ICP) by Method 6010D	24
Gl: Glossary of Terms	26
Al: Accreditations & Locations	27
Sc: Sample Chain of Custody	28



SAMPLE SUMMARY

MW-807 L1619283-01 GW

Collected by B. Coleman
 Collected date/time 05/22/23 11:35
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:23	SPL	Mt. Juliet, TN

MW-808 L1619283-02 GW

Collected by B. Coleman
 Collected date/time 05/22/23 12:10
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:31	SPL	Mt. Juliet, TN

MW-809 L1619283-03 GW

Collected by B. Coleman
 Collected date/time 05/22/23 10:25
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:05	SPL	Mt. Juliet, TN

MW-810 L1619283-04 GW

Collected by B. Coleman
 Collected date/time 05/22/23 11:10
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:34	SPL	Mt. Juliet, TN

MW-811 L1619283-05 GW

Collected by B. Coleman
 Collected date/time 05/22/23 12:05
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:37	SPL	Mt. Juliet, TN

MW-812 L1619283-06 GW

Collected by B. Coleman
 Collected date/time 05/22/23 12:45
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:39	SPL	Mt. Juliet, TN

MW-813 L1619283-07 GW

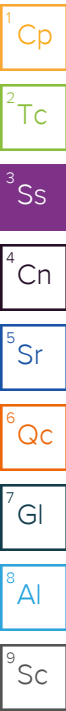
Collected by B. Coleman
 Collected date/time 05/22/23 13:55
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:42	SPL	Mt. Juliet, TN

MW-814 L1619283-08 GW

Collected by B. Coleman
 Collected date/time 05/22/23 13:20
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:45	SPL	Mt. Juliet, TN



SAMPLE SUMMARY

MW-815 L1619283-09 GW

Collected by B. Coleman
 Collected date/time 05/22/23 11:05
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:48	SPL	Mt. Juliet, TN

MW-816 L1619283-10 GW

Collected by B. Coleman
 Collected date/time 05/22/23 10:20
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:15	SPL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2068772	1	05/31/23 09:48	05/31/23 14:08	ZSA	Mt. Juliet, TN

MW-817 L1619283-11 GW

Collected by B. Coleman
 Collected date/time 05/18/23 16:10
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:51	SPL	Mt. Juliet, TN

MW-819 L1619283-12 GW

Collected by B. Coleman
 Collected date/time 05/18/23 15:50
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:54	SPL	Mt. Juliet, TN

MW-820 L1619283-13 GW

Collected by B. Coleman
 Collected date/time 05/22/23 12:40
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 22:56	SPL	Mt. Juliet, TN

MW-821 L1619283-14 GW

Collected by B. Coleman
 Collected date/time 05/22/23 13:35
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 23:04	SPL	Mt. Juliet, TN

MW-822 L1619283-15 GW

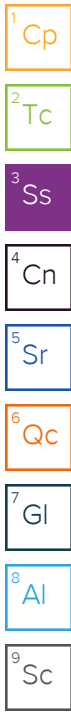
Collected by B. Coleman
 Collected date/time 05/22/23 14:05
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 23:07	SPL	Mt. Juliet, TN

DUPLICATE 1 L1619283-16 GW

Collected by B. Coleman
 Collected date/time 05/22/23 00:00
 Received date/time 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 23:10	SPL	Mt. Juliet, TN



SAMPLE SUMMARY

DUPLICATE 2 L1619283-17 GW

Collected by: B. Coleman
 Collected date/time: 05/22/23 00:00
 Received date/time: 05/23/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2066598	1	05/27/23 04:53	05/29/23 23:12	SPL	Mt. Juliet, TN

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

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 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.



Jeff Carr
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	5.43		5.00	1	05/29/2023 22:23	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	05/29/2023 22:31	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	445		5.00	1	05/29/2023 22:05	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	86.9		5.00	1	05/29/2023 22:34	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	17.1		5.00	1	05/29/2023 22:37	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	05/29/2023 22:39	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	05/29/2023 22:42	WG2066598

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	11.6		5.00	1	05/29/2023 22:45	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	05/29/2023 22:48	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND	J3 J6	5.00	1	05/29/2023 22:15	WG2066598
Molybdenum	ND		5.00	1	05/31/2023 14:08	WG2068772

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	05/29/2023 22:51	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	05/29/2023 22:54	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	05/29/2023 22:56	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	05/29/2023 23:04	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	05/29/2023 23:07	WG2066598

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

DUPLICATE 1

Collected date/time: 05/22/23 00:00

SAMPLE RESULTS - 16

L1619283

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	ND		5.00	1	05/29/2023 23:10	WG2066598

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	468		5.00	1	05/29/2023 23:12	WG2066598

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

Method Blank (MB)

(MB) R3930397-1 05/29/23 21:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Molybdenum	U		1.16	5.00

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3930397-2 05/29/23 22:02

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Molybdenum	1000	994	99.4	80.0-120	

4 Cn

5 Sr

L1619283-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1619283-03 05/29/23 22:05 • (MS) R3930397-4 05/29/23 22:10 • (MSD) R3930397-5 05/29/23 22:12

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Molybdenum	1000	445	1410	1420	96.2	97.7	1	75.0-125			1.05	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3931334-1 05/31/23 14:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Molybdenum	U		1.16	5.00

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3931334-2 05/31/23 14:05

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	997	99.7	80.0-120	

4 Cn

5 Sr

L1619283-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1619283-10 05/31/23 14:08 • (MS) R3931334-4 05/31/23 14:13 • (MSD) R3931334-5 05/31/23 14:16

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Molybdenum	1000	ND	973	1000	96.9	99.9	1	75.0-125			3.10	20

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

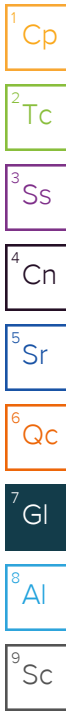
Guide to Reading and Understanding Your Laboratory Report

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
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
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Company Name/Address:
SCS Engineers - KS
 8575 W. 110th Street
 Overland Park, KS 66210

Billing Information:
Accounts Payable
 8575 W. 110th Street
 Overland Park, KS 66210

Pres Chk	22																			
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MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

Report to:
Jason Franks

Email To:
jfranks@scsengineers.com; rockhold@scsengine

Project Description:
Energy Sibley FAI CM 2023

City/State Collected:
Sibley, Mo

Please Circle:
 PT MT **CT** ET

Phone: **913-681-0030**

Client Project #
27222162.23 - 1

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
B. Coleman

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #
510

Immediately Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs															
MW-807	G	GW	-	5/22/23	1135	1	X														
MW-808		GW			1210	1	X														
MW-809		GW			1025	1	X														
MW-810		GW			1110	1	X														
MW-811		GW			1205	1	X														
MW-812		GW			1245	1	X														
MW-813		GW			1355	1	X														
MW-814		GW			1320	1	X														
MW-815		GW			1105	1	X														
MW-816		GW			1020	1	X														

Mo - 6010 250mlHDPE-HNO3

SDG # **L1619283**
C129
 Acctnum: **AQUAOPKS**
 Template: **T208643**
 Prelogin: **P999260**
 PM: **206 - Jeff Carr**
 PB:
 Shipped Via:
 Remarks Sample # (lab only)

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:
 pH _____ Temp _____
 Flow _____ Other _____
 Samples returned via:
 UPS FedEx Courier
 Tracking # **6357 9920 5632**

Sample Receipt Checklist
 COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N
 RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)

Date: **5/22/23**
 Time: **1800**

Received by: (Signature)
 Trip Blank Received: Yes/No
 HCL/MeOH
 TBR

Relinquished by: (Signature)

Date: _____
 Time: _____

Received by: (Signature)
 Temp: **1.0 °C** Bottles Received: **NSA7 1.0 + 0 = 1.0**

Relinquished by: (Signature)

Date: _____
 Time: _____

Received for lab by: (Signature)
 Date: **5/23/23** Time: **9:00**

If preservation required by Login: Date/Time
 Hold:
 Condition:
 NCF OK

Company Name/Address:

SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

Billing Information:

Accounts Payable
8575 W. 110th Street
Overland Park, KS 66210

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 22 of 22



MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody
constitutes acknowledgment and acceptance of the
Pace Terms and Conditions found at:
<https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # L1619283

Table #

Acctnum: **AQUAOPKS**

Template: **T208643**

Prelogin: **P999260**

PM: **206 - Jeff Carr**

PB:

Shipped Via:

Remarks | Sample # (lab only)

Report to:

Jason Franks

Email To:

jfranks@scsengineers.com; jrockhold@scsengineers.com

Project Description:

Evergry Sibley FAI CM 2023

City/State
Collected:

Sibley, MO

Please Circle:

PT MT **CT** ET

Phone: **913-681-0030**

Client Project #

27222162.23 - 1

Lab Project #

AQUAOPKS-SIBLEY

Collected by (print):

[Signature]

Site/Facility ID #

P.O. #

Collected by (signature):

[Signature]

Rush? (Lab MUST Be Notified)

___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

STD

No.
of
Cntrs

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

No.
of
Cntrs

MW-817

G

GW

-

5/18/23

1210

1

X

~~MW-818~~

G

GW

-

5/18/23

1210

1

X

MW-819

G

GW

-

5/18/23

1550

1

X

MW-820

G

GW

-

5/22/23

1240

1

X

MW-821

G

GW

-

5/22/23

1335

1

X

MW-822

G

GW

-

↓

1405

1

X

816 MS/MSD

G

GW

-

↓

1405

1

X

809 MS/MSD

G

GW

-

↓

-

1

X

DUPLICATE 1

G

GW

-

↓

-

1

X

DUPLICATE 2

G

GW

-

↓

-

1

X

* Matrix:

SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Wastewater
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:

___ UPS ___ FedEx ___ Courier

Tracking #

6357 9920 5632

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: ___ NP (Y) ___ N
COC Signed/Accurate: ___ Y ___ N
Bottles arrive intact: ___ Y ___ N
Correct bottles used: ___ Y ___ N
Sufficient volume sent: ___ Y ___ N
If Applicable
VOA Zero Headspace: ___ Y ___ N
Preservation Correct/Checked: ___ Y ___ N
RAD Screen <0.5 mR/hr: (Y) ___ N

Relinquished by: (Signature)

[Signature]

Date:

5/22/23

Time:

1800

Received by: (Signature)

Trip Blank Received: Yes/No

(Y) ___ N

HCL/MeOH

TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **1.0 °C** Bottles Received:

NSA7 1.64021.0

If preservation required by Login: Date/Time

Date:

Time:

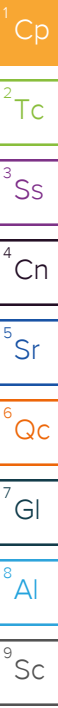
Received for lab by: (Signature)

Date: **5/23/23** Time: **9:00**

Hold:

Condition:

NCF / OK



SCS Engineers - KS

Sample Delivery Group: L1648407
Samples Received: 08/22/2023
Project Number: 27213169.23 - I
Description: Evergy Sibley Gen Station GW 2023-24

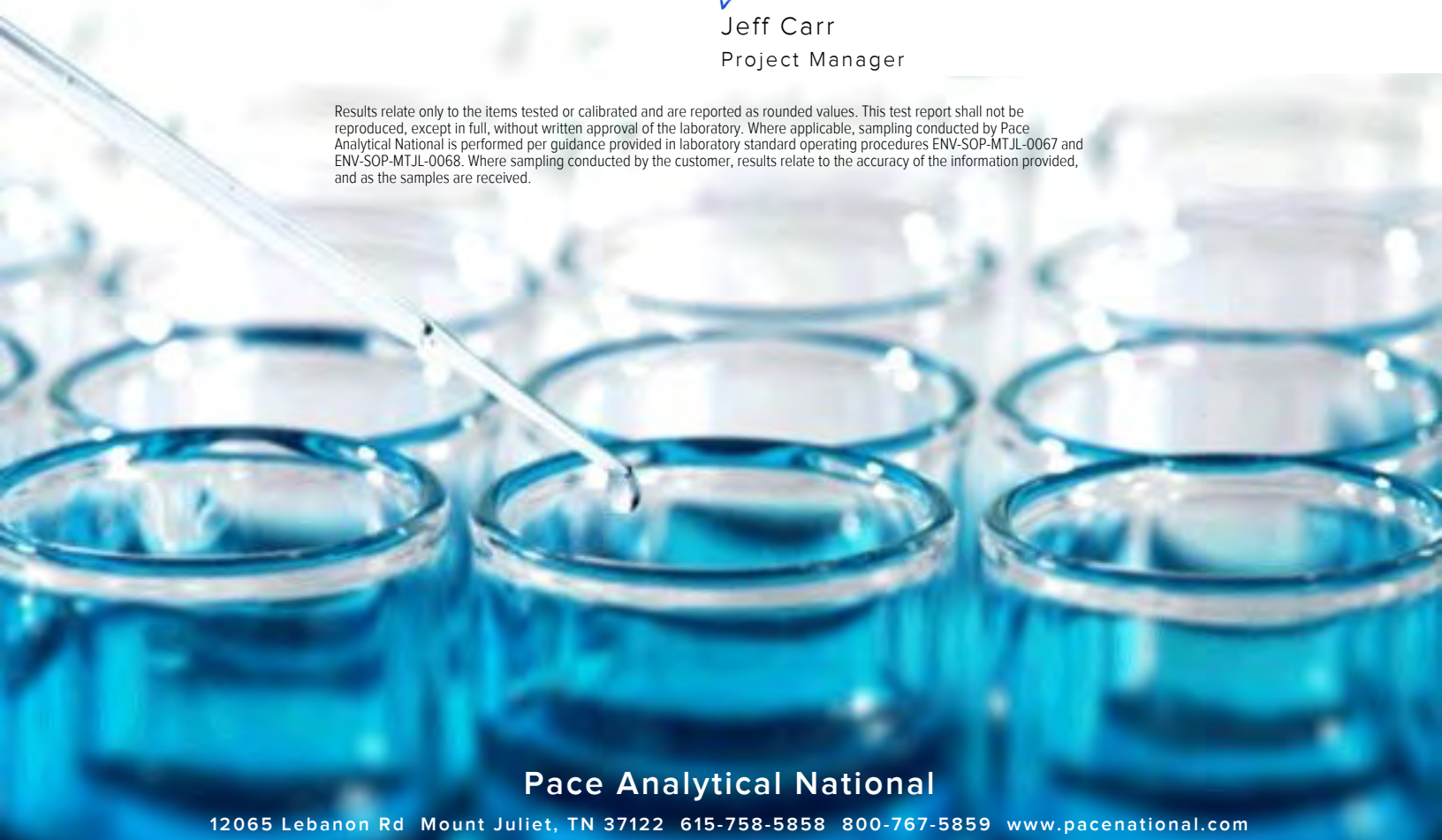
Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
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

Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	² Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³ Ss
MW-806R L1648407-01	5	
DUPLICATE 1 L1648407-02	6	⁴ Cn
Qc: Quality Control Summary	7	⁵ Sr
Metals (ICP) by Method 6010D	7	
Gl: Glossary of Terms	8	⁶ Qc
Al: Accreditations & Locations	9	⁷ Gl
Sc: Sample Chain of Custody	10	⁸ Al
		⁹ Sc

SAMPLE SUMMARY

MW-806R L1648407-01 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/17/23 12:00
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2120711	1	08/28/23 12:13	08/31/23 15:24	ZSA	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

DUPLICATE 1 L1648407-02 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/17/23 12:00
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2120711	1	08/28/23 12:13	08/31/23 15:35	ZSA	Mt. Juliet, TN

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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 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.



Jeff Carr
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	1460		5.00	1	08/31/2023 15:24	WG2120711

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	1430		5.00	1	08/31/2023 15:35	WG2120711

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

Method Blank (MB)

(MB) R3968028-1 08/31/23 15:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Molybdenum	U		1.16	5.00

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3968028-2 08/31/23 15:21

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	1040	104	80.0-120	

4 Cn

5 Sr

L1648407-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648407-01 08/31/23 15:24 • (MS) R3968028-4 08/31/23 15:29 • (MSD) R3968028-5 08/31/23 15:32

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Molybdenum	1000	1460	2410	2440	94.3	97.9	1	75.0-125			1.46	20

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

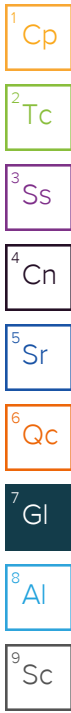
Guide to Reading and Understanding Your Laboratory Report

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

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

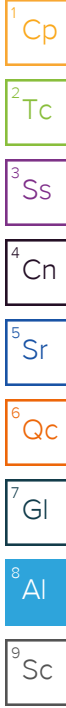
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



Company Name/Address:
SCS Engineers - KS
 8575 W. 110th Street
 Overland Park, KS 66210

Billing Information:
Accounts Payable
 8575 W. 110th Street
 Overland Park, KS 66210

Pres
 Chk **42**

Analysis / Container / Preservative

Chain of Custody Page **1** of **1**



MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
 Submitting a sample via this chain of custody
 constitutes acknowledgment and acceptance of the
 Pace Terms and Conditions found at:
<https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

Report to:
Jason Franks

Email To:
jfranks@scsengineers.com; jrockhold@scsengine

Project Description:
Every Sibley Gen Station GW 2023-24

City/State
 Collected: **Sibley MO**

Please Circle:
 PT MT **ET**

Phone: **913-681-0030**

Client Project #
27213169.23 - I

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
Matt VanderPutten

Site/Facility ID #

P.O. #

Collected by (signature):
Matt VanderPutten

Rush? (Lab MUST Be Notified)

Quote #

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Date Results Needed
std

No.
 of
 Cntrs

Immediately
 Packed on Ice N **Y**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs													
MW-806R	Grab	GW	NA	8/17/23	1200	1	X												
MW-806R MS/MSD	 	GW	 	 	1200	1	X												
DUPLICATE 1	 	GW	 	 	1200	1	X												

Molybdenom 250mlHDPE-HNO3

SDG # **U648407**
B202

Tablet

Acctnum: **AQUAOPKS**

Template: **T233461**

Prelogin: **P1015849**

PM: **206 - Jeff Carr**

PB:

Shipped Via: **FedEX Ground**

Remarks | Sample # (lab only)

-01
-01
-02

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier Tracking #

Sample Receipt Checklist	
COC Seal Present/Intact:	<input type="checkbox"/> NP <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Bottles arrive intact:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Correct bottles used:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Sufficient volume sent:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Preservation Correct/Checked:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N

Relinquished by: (Signature)
Matt VanderPutten

Date: **8/23/23**

Time: **1600**

Received by: (Signature)

Trip Blank Received: Yes/No
 HCL / MeOH
 TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **°C** Bottles Received: **3**

PH-10BDH4321 TRC-2144141
 CR6-20221V

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: **8-22-23** Time: **9:00**

Hold: Condition: **NCF / OK**

1148407

Tracking Numbers		Temperature
6481 5470 3236		DRAS 1.7 to 1.7
6481 5470 3219		DRAS 3.8 to 3.8
6481 5470 3220		DRAS 2.2 to 0.2
6481 5470 3241		DRAS 0.5 to 0.5
6481 5470 3208		DRAS 5.8 to 5.8

SCS Engineers - KS

Sample Delivery Group: L1648412
Samples Received: 08/22/2023
Project Number: 27222162.23 - 3
Description: Evergy Sibley Gen Station FAI CM

Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
Project Manager

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TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	7
Sr: Sample Results	8
MW-806R L1648412-01	8
MW-807 L1648412-02	10
MW-808 L1648412-03	12
MW-809 L1648412-04	14
MW-810 L1648412-05	16
MW-811 L1648412-06	18
MW-812 L1648412-07	20
MW-813 L1648412-08	22
MW-815 L1648412-09	24
MW-816 L1648412-10	26
MW-822 L1648412-11	28
DUP L1648412-12	30
Qc: Quality Control Summary	32
Gravimetric Analysis by Method 2540 C-2011	32
Wet Chemistry by Method 2320 B-2011	35
Wet Chemistry by Method 3500Fe B-2011	37
Wet Chemistry by Method 4500S2 D-2011	38
Wet Chemistry by Method 5310 B-2014	39
Wet Chemistry by Method 9056A	40
Wet Chemistry by Method 9060A	43
Metals (ICP) by Method 6010D	45
Gl: Glossary of Terms	49
Al: Accreditations & Locations	50
Sc: Sample Chain of Custody	51

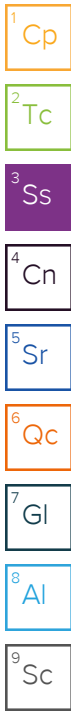


SAMPLE SUMMARY

MW-806R L1648412-01 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/17/23 12:00
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:26	08/28/23 22:26	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:01	08/29/23 16:01	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2120117	1	08/24/23 08:13	08/24/23 13:51	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120106	1	08/24/23 12:20	08/24/23 12:20	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	5	08/23/23 02:03	08/23/23 02:03	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:41	08/22/23 23:41	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/08/23 23:00	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 17:28	08/22/23 17:28	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2119970	5	08/24/23 02:44	08/24/23 02:44	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2120957	1	08/25/23 18:27	08/25/23 18:27	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:13	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 08:49	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:26	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:01	ZSA	Mt. Juliet, TN



MW-807 L1648412-02 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/18/23 16:20
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:29	08/28/23 22:29	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:04	08/29/23 16:04	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2120117	1	08/24/23 08:13	08/24/23 13:51	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120106	1	08/24/23 12:16	08/24/23 12:16	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	1	08/23/23 02:03	08/23/23 02:03	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:41	08/22/23 23:41	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/08/23 23:17	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 17:43	08/22/23 17:43	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2120957	1	08/25/23 18:44	08/25/23 18:44	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:16	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 08:52	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:29	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:04	ZSA	Mt. Juliet, TN

MW-808 L1648412-03 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/18/23 15:25
 Received date/time: 08/22/23 09:00

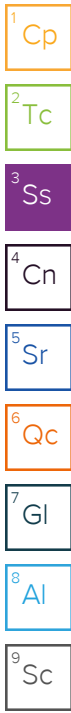
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:32	08/28/23 22:32	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:06	08/29/23 16:06	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2120117	1	08/24/23 08:13	08/24/23 13:51	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120106	1	08/24/23 12:13	08/24/23 12:13	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	1	08/23/23 02:04	08/23/23 02:04	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:41	08/22/23 23:41	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/08/23 23:34	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 17:58	08/22/23 17:58	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2120957	1	08/25/23 19:20	08/25/23 19:20	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:19	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 08:55	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:32	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:06	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-809 L1648412-04 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/17/23 14:10
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:11	08/28/23 22:11	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 15:48	08/29/23 15:48	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2119435	1	08/23/23 14:01	08/23/23 15:50	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120106	1	08/24/23 12:05	08/24/23 12:05	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	25	08/23/23 02:05	08/23/23 02:05	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:41	08/22/23 23:41	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/08/23 23:54	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 18:13	08/22/23 18:13	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2120957	1	08/25/23 19:41	08/25/23 19:41	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:02	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 08:38	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:11	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 15:48	ZSA	Mt. Juliet, TN



MW-810 L1648412-05 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/17/23 15:40
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:41	08/28/23 22:41	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:14	08/29/23 16:14	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2119435	1	08/23/23 14:01	08/23/23 15:50	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120121	1	08/24/23 13:45	08/24/23 13:45	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	1	08/23/23 02:07	08/23/23 02:07	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:42	08/22/23 23:42	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/09/23 01:05	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 19:42	08/22/23 19:42	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2120957	1	08/25/23 21:26	08/25/23 21:26	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:21	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 08:58	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:41	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:14	ZSA	Mt. Juliet, TN

MW-811 L1648412-06 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/17/23 16:45
 Received date/time: 08/22/23 09:00

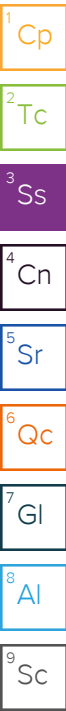
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:44	08/28/23 22:44	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:17	08/29/23 16:17	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2120117	1	08/24/23 08:13	08/24/23 13:51	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120121	1	08/24/23 13:53	08/24/23 13:53	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	5	08/23/23 02:09	08/23/23 02:09	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:42	08/22/23 23:42	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/09/23 01:24	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 19:57	08/22/23 19:57	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2120957	1	08/25/23 21:45	08/25/23 21:45	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:29	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 09:07	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:44	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:17	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-812 L1648412-07 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/17/23 14:40
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:47	08/28/23 22:47	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:20	08/29/23 16:20	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2120117	1	08/24/23 08:13	08/24/23 13:51	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120121	1	08/24/23 13:56	08/24/23 13:56	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	25	08/23/23 02:10	08/23/23 02:10	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:42	08/22/23 23:42	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/09/23 02:41	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 20:12	08/22/23 20:12	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	5	08/22/23 20:27	08/22/23 20:27	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2120957	1	08/25/23 22:05	08/25/23 22:05	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:32	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 09:10	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:47	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:20	ZSA	Mt. Juliet, TN



MW-813 L1648412-08 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/17/23 13:10
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:50	08/28/23 22:50	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:22	08/29/23 16:22	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2123669	1	08/30/23 09:05	08/30/23 11:50	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120121	1	08/24/23 14:00	08/24/23 14:00	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	5	08/23/23 02:11	08/23/23 02:11	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:43	08/22/23 23:43	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/09/23 03:01	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 20:42	08/22/23 20:42	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2120957	1	08/25/23 22:25	08/25/23 22:25	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:35	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 09:13	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:50	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:22	ZSA	Mt. Juliet, TN

MW-815 L1648412-09 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/18/23 18:10
 Received date/time: 08/22/23 09:00

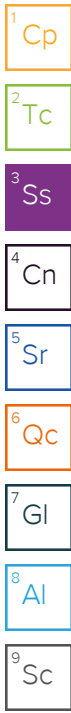
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:53	08/28/23 22:53	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:25	08/29/23 16:25	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2120117	1	08/24/23 08:13	08/24/23 13:51	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120121	1	08/24/23 14:03	08/24/23 14:03	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	1	08/23/23 02:12	08/23/23 02:12	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:43	08/22/23 23:43	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/09/23 03:17	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 20:57	08/22/23 20:57	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2120957	1	08/25/23 22:43	08/25/23 22:43	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:38	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 09:16	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:53	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:25	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-816 L1648412-10 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/18/23 17:20
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:56	08/28/23 22:56	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:28	08/29/23 16:28	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2120117	1	08/24/23 08:13	08/24/23 13:51	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120121	1	08/24/23 14:07	08/24/23 14:07	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	10	08/23/23 02:13	08/23/23 02:13	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:43	08/22/23 23:43	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/09/23 03:52	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 21:12	08/22/23 21:12	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2120957	1	08/25/23 23:50	08/25/23 23:50	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:40	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 09:18	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:56	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:28	ZSA	Mt. Juliet, TN



MW-822 L1648412-11 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/18/23 14:25
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 22:58	08/28/23 22:58	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:31	08/29/23 16:31	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2120117	1	08/24/23 08:13	08/24/23 13:51	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120121	1	08/24/23 14:10	08/24/23 14:10	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	1	08/23/23 02:14	08/23/23 02:14	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:43	08/22/23 23:43	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/09/23 04:09	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 21:56	08/22/23 21:56	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2122267	1	08/29/23 12:31	08/29/23 12:31	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:43	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 09:21	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 22:58	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:31	ZSA	Mt. Juliet, TN

DUP L1648412-12 GW

Collected by: Matt Vander Putten
 Collected date/time: 08/18/23 14:10
 Received date/time: 08/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2120709	1	08/28/23 23:02	08/28/23 23:02	ZSA	Mt. Juliet, TN
Calculated Results	WG2120709	1	08/29/23 16:33	08/29/23 16:33	ZSA	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2120117	1	08/24/23 08:13	08/24/23 13:51	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2120121	1	08/24/23 14:30	08/24/23 14:30	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2119066	5	08/23/23 02:15	08/23/23 02:15	CRB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2119060	1	08/22/23 23:43	08/22/23 23:43	CRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2128882	1	09/08/23 18:00	09/09/23 04:29	AW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2118800	1	08/22/23 22:11	08/22/23 22:11	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2122267	1	08/29/23 12:52	08/29/23 12:52	AW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	08/31/23 01:46	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120693	1	08/28/23 12:25	09/01/23 09:24	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/28/23 23:02	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2120709	1	08/25/23 15:00	08/29/23 16:33	ZSA	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 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.



Jeff Carr
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	480		100	1	08/28/2023 22:26	WG2120709

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	469000		2500	1	08/29/2023 16:01	WG2120709

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	660000	J3	13300	1	08/24/2023 13:51	WG2120117

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	240000		20000	1	08/24/2023 12:20	WG2120106
Alkalinity,Carbonate	ND		20000	1	08/24/2023 12:20	WG2120106

Sample Narrative:

L1648412-01 WG2120106: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	5760	T8	250	5	08/23/2023 02:03	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:41	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	1140	B T8	1000	1	09/08/2023 23:00	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	30900		1000	1	08/22/2023 17:28	WG2118800
Fluoride	179		150	1	08/22/2023 17:28	WG2118800
Sulfate	250000		25000	5	08/24/2023 02:44	WG2119970

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1860	B	1000	1	08/25/2023 18:27	WG2120957

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	152000		1000	1	08/29/2023 16:01	WG2120709
Calcium,Dissolved	159000		1000	1	08/31/2023 01:13	WG2120693
Iron	6240		100	1	08/28/2023 22:26	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:13	WG2120693
Magnesium	21900		1000	1	08/29/2023 16:01	WG2120709
Magnesium,Dissolved	22700		1000	1	08/31/2023 01:13	WG2120693
Molybdenum	1320		5.00	1	08/28/2023 22:26	WG2120709
Molybdenum,Dissolved	1290		5.00	1	08/31/2023 01:13	WG2120693
Potassium	3540		2000	1	08/28/2023 22:26	WG2120709
Potassium,Dissolved	3480		2000	1	09/01/2023 08:49	WG2120693
Sodium	22200		3000	1	08/28/2023 22:26	WG2120709
Sodium,Dissolved	21900		3000	1	08/31/2023 01:13	WG2120693

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	273		50.0	1	08/28/2023 22:29	WG2120709

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	266000		2500	1	08/29/2023 16:04	WG2120709

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	305000		10000	1	08/24/2023 13:51	WG2120117

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	241000		20000	1	08/24/2023 12:16	WG2120106
Alkalinity,Carbonate	ND		20000	1	08/24/2023 12:16	WG2120106

Sample Narrative:

L1648412-02 WG2120106: Endpoint pH 4.5

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	ND	T8	50.0	1	08/23/2023 02:03	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:41	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	ND	T8	1000	1	09/08/2023 23:17	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	12000		1000	1	08/22/2023 17:43	WG2118800
Fluoride	177		150	1	08/22/2023 17:43	WG2118800
Sulfate	30900		5000	1	08/22/2023 17:43	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	ND		1000	1	08/25/2023 18:44	WG2120957

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	82000		1000	1	08/29/2023 16:04	WG2120709
Calcium,Dissolved	83800		1000	1	08/31/2023 01:16	WG2120693
Iron	295		100	1	08/28/2023 22:29	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:16	WG2120693
Magnesium	14900		1000	1	08/29/2023 16:04	WG2120709
Magnesium,Dissolved	15300		1000	1	08/31/2023 01:16	WG2120693
Molybdenum	6.66	<u>B</u>	5.00	1	08/28/2023 22:29	WG2120709
Molybdenum,Dissolved	6.48		5.00	1	08/31/2023 01:16	WG2120693
Potassium	ND		2000	1	08/28/2023 22:29	WG2120709
Potassium,Dissolved	ND		2000	1	09/01/2023 08:52	WG2120693
Sodium	10400		3000	1	08/28/2023 22:29	WG2120709
Sodium,Dissolved	10900	<u>B</u>	3000	1	08/31/2023 01:16	WG2120693

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	200		50.0	1	08/28/2023 22:32	WG2120709

1 Cp

2 Tc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	400000		2500	1	08/29/2023 16:06	WG2120709

3 Ss

4 Cn

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	516000	J3	10000	1	08/24/2023 13:51	WG2120117

5 Sr

6 Qc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	267000		20000	1	08/24/2023 12:13	WG2120106
Alkalinity,Carbonate	ND		20000	1	08/24/2023 12:13	WG2120106

7 Gl

8 Al

9 Sc

Sample Narrative:

L1648412-03 WG2120106: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	ND	T8	50.0	1	08/23/2023 02:04	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:41	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	ND	T8	1000	1	09/08/2023 23:34	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	36800		1000	1	08/22/2023 17:58	WG2118800
Fluoride	ND		150	1	08/22/2023 17:58	WG2118800
Sulfate	114000		5000	1	08/22/2023 17:58	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	ND		1000	1	08/25/2023 19:20	WG2120957

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	132000		1000	1	08/29/2023 16:06	WG2120709
Calcium,Dissolved	138000		1000	1	08/31/2023 01:19	WG2120693
Iron	223		100	1	08/28/2023 22:32	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:19	WG2120693
Magnesium	17300		1000	1	08/29/2023 16:06	WG2120709
Magnesium,Dissolved	18100		1000	1	08/31/2023 01:19	WG2120693
Molybdenum	ND		5.00	1	08/28/2023 22:32	WG2120709
Molybdenum,Dissolved	ND		5.00	1	08/31/2023 01:19	WG2120693
Potassium	ND		2000	1	08/28/2023 22:32	WG2120709
Potassium,Dissolved	ND		2000	1	09/01/2023 08:55	WG2120693
Sodium	13000		3000	1	08/28/2023 22:32	WG2120709
Sodium,Dissolved	13400		3000	1	08/31/2023 01:19	WG2120693

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	ND		100	1	08/28/2023 22:11	WG2120709

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	443000		2500	1	08/29/2023 15:48	WG2120709

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	510000		10000	1	08/23/2023 15:50	WG2119435

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	337000		20000	1	08/24/2023 12:05	WG2120106
Alkalinity,Carbonate	ND		20000	1	08/24/2023 12:05	WG2120106

Sample Narrative:

L1648412-04 WG2120106: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	14500	T8	1250	25	08/23/2023 02:05	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:41	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	2670	B T8	1000	1	09/08/2023 23:54	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	29400		1000	1	08/22/2023 18:13	WG2118800
Fluoride	770		150	1	08/22/2023 18:13	WG2118800
Sulfate	64800		5000	1	08/22/2023 18:13	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3190	B	1000	1	08/25/2023 19:41	WG2120957

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	140000	Q1 V	1000	1	08/29/2023 15:48	WG2120709
Calcium,Dissolved	125000	Q1	1000	1	08/31/2023 01:02	WG2120693
Iron	12000		100	1	08/28/2023 22:11	WG2120709
Iron,Dissolved	400		100	1	08/31/2023 01:02	WG2120693
Magnesium	22600	Q1	1000	1	08/29/2023 15:48	WG2120709
Magnesium,Dissolved	19300	Q1	1000	1	08/31/2023 01:02	WG2120693
Molybdenum	335		5.00	1	08/28/2023 22:11	WG2120709
Molybdenum,Dissolved	445	Q1	5.00	1	08/31/2023 01:02	WG2120693
Potassium	4980		2000	1	08/28/2023 22:11	WG2120709
Potassium,Dissolved	4650		2000	1	09/01/2023 08:38	WG2120693
Sodium	29700		3000	1	08/28/2023 22:11	WG2120709
Sodium,Dissolved	29900	Q1	3000	1	08/31/2023 01:02	WG2120693

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	ND		50.0	1	08/28/2023 22:41	WG2120709

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	382000		2500	1	08/29/2023 16:14	WG2120709

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	580000		10000	1	08/23/2023 15:50	WG2119435

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	303000		20000	1	08/24/2023 13:45	WG2120121
Alkalinity,Carbonate	ND		20000	1	08/24/2023 13:45	WG2120121

Sample Narrative:

L1648412-05 WG2120121: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	2730	T8	50.0	1	08/23/2023 02:07	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:42	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	1380	B T8	1000	1	09/09/2023 01:05	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	23300		1000	1	08/22/2023 19:42	WG2118800
Fluoride	180		150	1	08/22/2023 19:42	WG2118800
Sulfate	126000		5000	1	08/22/2023 19:42	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1260	B	1000	1	08/25/2023 21:26	WG2120957

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	119000		1000	1	08/29/2023 16:14	WG2120709
Calcium,Dissolved	125000		1000	1	08/31/2023 01:21	WG2120693
Iron	864		100	1	08/28/2023 22:41	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:21	WG2120693
Magnesium	20700		1000	1	08/29/2023 16:14	WG2120709
Magnesium,Dissolved	21600		1000	1	08/31/2023 01:21	WG2120693
Molybdenum	147		5.00	1	08/28/2023 22:41	WG2120709
Molybdenum,Dissolved	143		5.00	1	08/31/2023 01:21	WG2120693
Potassium	3650		2000	1	08/28/2023 22:41	WG2120709
Potassium,Dissolved	3720		2000	1	09/01/2023 08:58	WG2120693
Sodium	33400		3000	1	08/28/2023 22:41	WG2120709
Sodium,Dissolved	33700		3000	1	08/31/2023 01:21	WG2120693

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	ND		100	1	08/28/2023 22:44	WG2120709

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	406000		2500	1	08/29/2023 16:17	WG2120709

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	555000		10000	1	08/24/2023 13:51	WG2120117

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	234000		20000	1	08/24/2023 13:53	WG2120121
Alkalinity,Carbonate	ND		20000	1	08/24/2023 13:53	WG2120121

Sample Narrative:

L1648412-06 WG2120121: Endpoint pH 4.5

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	6340	T8	250	5	08/23/2023 02:09	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:42	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	ND	P1 T8	1000	1	09/09/2023 01:24	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	24600		1000	1	08/22/2023 19:57	WG2118800
Fluoride	ND		150	1	08/22/2023 19:57	WG2118800
Sulfate	162000		5000	1	08/22/2023 19:57	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	ND		1000	1	08/25/2023 21:45	WG2120957

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	130000		1000	1	08/29/2023 16:17	WG2120709
Calcium,Dissolved	137000		1000	1	08/31/2023 01:29	WG2120693
Iron	1720		100	1	08/28/2023 22:44	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:29	WG2120693
Magnesium	19400		1000	1	08/29/2023 16:17	WG2120709
Magnesium,Dissolved	20100		1000	1	08/31/2023 01:29	WG2120693
Molybdenum	15.5		5.00	1	08/28/2023 22:44	WG2120709
Molybdenum,Dissolved	20.0		5.00	1	08/31/2023 01:29	WG2120693
Potassium	3140		2000	1	08/28/2023 22:44	WG2120709
Potassium,Dissolved	3100		2000	1	09/01/2023 09:07	WG2120693
Sodium	11500		3000	1	08/28/2023 22:44	WG2120709
Sodium,Dissolved	11800	<u>B</u>	3000	1	08/31/2023 01:29	WG2120693

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	4270		100	1	08/28/2023 22:47	WG2120709

1 Cp

2 Tc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	886000		2500	1	08/29/2023 16:20	WG2120709

3 Ss

4 Cn

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1280000		20000	1	08/24/2023 13:51	WG2120117

5 Sr

6 Qc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	372000		20000	1	08/24/2023 13:56	WG2120121
Alkalinity,Carbonate	ND		20000	1	08/24/2023 13:56	WG2120121

7 Gl

8 Al

9 Sc

Sample Narrative:

L1648412-07 WG2120121: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	17900	T8	1250	25	08/23/2023 02:10	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:42	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	3350	B T8	1000	1	09/09/2023 02:41	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	31100		1000	1	08/22/2023 20:12	WG2118800
Fluoride	182		150	1	08/22/2023 20:12	WG2118800
Sulfate	553000		25000	5	08/22/2023 20:27	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3960	B	1000	1	08/25/2023 22:05	WG2120957

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	242000		1000	1	08/29/2023 16:20	WG2120709
Calcium,Dissolved	247000		1000	1	08/31/2023 01:32	WG2120693
Iron	22200		100	1	08/28/2023 22:47	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:32	WG2120693
Magnesium	68500		1000	1	08/29/2023 16:20	WG2120709
Magnesium,Dissolved	71200		1000	1	08/31/2023 01:32	WG2120693
Molybdenum	ND		5.00	1	08/28/2023 22:47	WG2120709
Molybdenum,Dissolved	ND		5.00	1	08/31/2023 01:32	WG2120693
Potassium	8340		2000	1	08/28/2023 22:47	WG2120709
Potassium,Dissolved	8220		2000	1	09/01/2023 09:10	WG2120693
Sodium	48000		3000	1	08/28/2023 22:47	WG2120709
Sodium,Dissolved	48400		3000	1	08/31/2023 01:32	WG2120693

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	10300		100	1	08/28/2023 22:50	WG2120709

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	368000		2500	1	08/29/2023 16:22	WG2120709

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	490000	Q	10800	1	08/30/2023 11:50	WG2123669

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	274000		20000	1	08/24/2023 14:00	WG2120121
Alkalinity,Carbonate	ND		20000	1	08/24/2023 14:00	WG2120121

Sample Narrative:

L1648412-08 WG2120121: Endpoint pH 4.5

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	8160	T8	250	5	08/23/2023 02:11	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:43	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	1020	B T8	1000	1	09/09/2023 03:01	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	34900		1000	1	08/22/2023 20:42	WG2118800
Fluoride	ND		150	1	08/22/2023 20:42	WG2118800
Sulfate	91900		5000	1	08/22/2023 20:42	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1800	B	1000	1	08/25/2023 22:25	WG2120957

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	121000		1000	1	08/29/2023 16:22	WG2120709
Calcium,Dissolved	122000		1000	1	08/31/2023 01:35	WG2120693
Iron	18400		100	1	08/28/2023 22:50	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:35	WG2120693
Magnesium	15900		1000	1	08/29/2023 16:22	WG2120709
Magnesium,Dissolved	15900		1000	1	08/31/2023 01:35	WG2120693
Molybdenum	7.96	<u>B</u>	5.00	1	08/28/2023 22:50	WG2120709
Molybdenum,Dissolved	8.26		5.00	1	08/31/2023 01:35	WG2120693
Potassium	2740		2000	1	08/28/2023 22:50	WG2120709
Potassium,Dissolved	2740		2000	1	09/01/2023 09:13	WG2120693
Sodium	26000		3000	1	08/28/2023 22:50	WG2120709
Sodium,Dissolved	26100		3000	1	08/31/2023 01:35	WG2120693

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	ND	J	50.0	1	08/28/2023 22:53	WG2120709

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	236000		2500	1	08/29/2023 16:25	WG2120709

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	310000		10000	1	08/24/2023 13:51	WG2120117

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	168000		20000	1	08/24/2023 14:03	WG2120121
Alkalinity,Carbonate	ND		20000	1	08/24/2023 14:03	WG2120121

Sample Narrative:

L1648412-09 WG2120121: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	ND	T8	50.0	1	08/23/2023 02:12	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:43	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	ND	P1 T8	1000	1	09/09/2023 03:17	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	11700		1000	1	08/22/2023 20:57	WG2118800
Fluoride	171		150	1	08/22/2023 20:57	WG2118800
Sulfate	45800		5000	1	08/22/2023 20:57	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	ND		1000	1	08/25/2023 22:43	WG2120957

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	73100		1000	1	08/29/2023 16:25	WG2120709
Calcium,Dissolved	76800		1000	1	08/31/2023 01:38	WG2120693
Iron	ND		100	1	08/28/2023 22:53	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:38	WG2120693
Magnesium	13100		1000	1	08/29/2023 16:25	WG2120709
Magnesium,Dissolved	13600		1000	1	08/31/2023 01:38	WG2120693
Molybdenum	ND		5.00	1	08/28/2023 22:53	WG2120709
Molybdenum,Dissolved	ND		5.00	1	08/31/2023 01:38	WG2120693
Potassium	ND		2000	1	08/28/2023 22:53	WG2120709
Potassium,Dissolved	ND		2000	1	09/01/2023 09:16	WG2120693
Sodium	8440		3000	1	08/28/2023 22:53	WG2120709
Sodium,Dissolved	9050	<u>B</u>	3000	1	08/31/2023 01:38	WG2120693

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	594		100	1	08/28/2023 22:56	WG2120709

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	281000		2500	1	08/29/2023 16:28	WG2120709

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	339000		10000	1	08/24/2023 13:51	WG2120117

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	244000		20000	1	08/24/2023 14:07	WG2120121
Alkalinity,Carbonate	ND		20000	1	08/24/2023 14:07	WG2120121

Sample Narrative:

L1648412-10 WG2120121: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	10500	T8	500	10	08/23/2023 02:13	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:43	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	1530	B T8	1000	1	09/09/2023 03:52	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	14700		1000	1	08/22/2023 21:12	WG2118800
Fluoride	332		150	1	08/22/2023 21:12	WG2118800
Sulfate	39200		5000	1	08/22/2023 21:12	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	2000	B	1000	1	08/25/2023 23:50	WG2120957

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	84900		1000	1	08/29/2023 16:28	WG2120709
Calcium,Dissolved	86500		1000	1	08/31/2023 01:40	WG2120693
Iron	11100		100	1	08/28/2023 22:56	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:40	WG2120693
Magnesium	16800		1000	1	08/29/2023 16:28	WG2120709
Magnesium,Dissolved	16800		1000	1	08/31/2023 01:40	WG2120693
Molybdenum	ND		5.00	1	08/28/2023 22:56	WG2120709
Molybdenum,Dissolved	5.14		5.00	1	08/31/2023 01:40	WG2120693
Potassium	2270		2000	1	08/28/2023 22:56	WG2120709
Potassium,Dissolved	2290		2000	1	09/01/2023 09:18	WG2120693
Sodium	10400		3000	1	08/28/2023 22:56	WG2120709
Sodium,Dissolved	10500	<u>B</u>	3000	1	08/31/2023 01:40	WG2120693

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	653		50.0	1	08/28/2023 22:58	WG2120709

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	283000		2500	1	08/29/2023 16:31	WG2120709

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	364000		10000	1	08/24/2023 13:51	WG2120117

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	207000		20000	1	08/24/2023 14:10	WG2120121
Alkalinity,Carbonate	ND		20000	1	08/24/2023 14:10	WG2120121

Sample Narrative:

L1648412-11 WG2120121: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	ND	T8	50.0	1	08/23/2023 02:14	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:43	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	ND	T8	1000	1	09/09/2023 04:09	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	14300		1000	1	08/22/2023 21:56	WG2118800
Fluoride	201		150	1	08/22/2023 21:56	WG2118800
Sulfate	60600		5000	1	08/22/2023 21:56	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	ND		1000	1	08/29/2023 12:31	WG2122267

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	94300		1000	1	08/29/2023 16:31	WG2120709
Calcium,Dissolved	97700		1000	1	08/31/2023 01:43	WG2120693
Iron	677		100	1	08/28/2023 22:58	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:43	WG2120693
Magnesium	11600		1000	1	08/29/2023 16:31	WG2120709
Magnesium,Dissolved	11900		1000	1	08/31/2023 01:43	WG2120693
Molybdenum	5.73	B	5.00	1	08/28/2023 22:58	WG2120709
Molybdenum,Dissolved	6.12		5.00	1	08/31/2023 01:43	WG2120693
Potassium	ND		2000	1	08/28/2023 22:58	WG2120709
Potassium,Dissolved	ND		2000	1	09/01/2023 09:21	WG2120693
Sodium	8470		3000	1	08/28/2023 22:58	WG2120709
Sodium,Dissolved	9040	B	3000	1	08/31/2023 01:43	WG2120693

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	ND		100	1	08/28/2023 23:02	WG2120709

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	442000		2500	1	08/29/2023 16:33	WG2120709

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	519000		10000	1	08/24/2023 13:51	WG2120117

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	385000		20000	1	08/24/2023 14:30	WG2120121
Alkalinity,Carbonate	ND		20000	1	08/24/2023 14:30	WG2120121

Sample Narrative:

L1648412-12 WG2120121: Endpoint pH 4.5

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	12200	T8	250	5	08/23/2023 02:15	WG2119066

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	08/22/2023 23:43	WG2119060

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	2690	B T8	1000	1	09/09/2023 04:29	WG2128882

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	29300		1000	1	08/22/2023 22:11	WG2118800
Fluoride	758		150	1	08/22/2023 22:11	WG2118800
Sulfate	64400		5000	1	08/22/2023 22:11	WG2118800

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3680		1000	1	08/29/2023 12:52	WG2122267

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	139000		1000	1	08/29/2023 16:33	WG2120709
Calcium,Dissolved	124000		1000	1	08/31/2023 01:46	WG2120693
Iron	12000		100	1	08/28/2023 23:02	WG2120709
Iron,Dissolved	ND		100	1	08/31/2023 01:46	WG2120693
Magnesium	22900		1000	1	08/29/2023 16:33	WG2120709
Magnesium,Dissolved	19000		1000	1	08/31/2023 01:46	WG2120693
Molybdenum	336		5.00	1	08/28/2023 23:02	WG2120709
Molybdenum,Dissolved	451		5.00	1	08/31/2023 01:46	WG2120693
Potassium	4970		2000	1	08/28/2023 23:02	WG2120709
Potassium,Dissolved	4540		2000	1	09/01/2023 09:24	WG2120693
Sodium	30000		3000	1	08/28/2023 23:02	WG2120709
Sodium,Dissolved	29600		3000	1	08/31/2023 01:46	WG2120693

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

Method Blank (MB)

(MB) R3966158-1 08/23/23 15:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

1 Cp

2 Tc

3 Ss

L1648377-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1648377-01 08/23/23 15:50 • (DUP) R3966158-3 08/23/23 15:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1370000	1460000	1	6.35	J3	5

4 Cn

5 Sr

L1648377-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1648377-02 08/23/23 15:50 • (DUP) R3966158-4 08/23/23 15:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	816000	859000	1	5.10	J3	5

6 Qc

7 Gl

8 Al

Laboratory Control Sample (LCS)

(LCS) R3966158-2 08/23/23 15:50

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8570000	97.4	77.3-123	

9 Sc

Method Blank (MB)

(MB) R3966680-1 08/24/23 13:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

¹Cp

²Tc

³Ss

L1648412-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1648412-03 08/24/23 13:51 • (DUP) R3966680-4 08/24/23 13:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	516000	549000	1	6.20	J3	5

⁴Cn

⁵Sr

⁶Qc

L1648412-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1648412-02 08/24/23 13:51 • (DUP) R3966680-5 08/24/23 13:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	305000	320000	1	4.80		5

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3966680-2 08/24/23 13:51

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8500000	96.6	77.3-123	

Method Blank (MB)

(MB) R3968369-1 08/30/23 11:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

1 Cp

2 Tc

3 Ss

L1650195-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1650195-03 08/30/23 11:50 • (DUP) R3968369-3 08/30/23 11:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	2310000	2400000	1	3.82		5

4 Cn

5 Sr

6 Qc

L1650195-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1650195-05 08/30/23 11:50 • (DUP) R3968369-4 08/30/23 11:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	944000	1020000	1	7.35	J3	5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3968369-2 08/30/23 11:50

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8790000	99.9	77.3-123	

Method Blank (MB)

(MB) R3964917-2 08/24/23 09:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		8450	20000
Alkalinity,Carbonate	U		8450	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1646130-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1646130-01 08/24/23 10:30 • (DUP) R3964917-3 08/24/23 10:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	ND	ND	1	0.000		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1648412-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1648412-04 08/24/23 12:05 • (DUP) R3964917-4 08/24/23 12:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	337000	339000	1	0.619		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3965081-2 08/24/23 12:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		8450	20000
Alkalinity,Carbonate	U		8450	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1648412-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1648412-05 08/24/23 13:45 • (DUP) R3965081-3 08/24/23 13:49

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	303000	305000	1	0.895		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1648548-13 Original Sample (OS) • Duplicate (DUP)

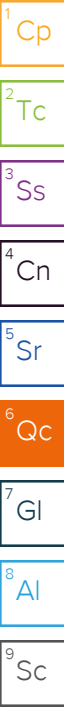
(OS) L1648548-13 08/24/23 15:14 • (DUP) R3965081-4 08/24/23 15:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	37200	37200	1	0.0766		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5



Method Blank (MB)

(MB) R3964123-1 08/23/23 01:54

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ferrous Iron	U		15.0	50.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1648412-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1648412-10 08/23/23 02:13 • (DUP) R3964123-5 08/23/23 02:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ferrous Iron	10500	10600	10	0.852		20

L1648489-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1648489-10 08/23/23 02:22 • (DUP) R3964123-6 08/23/23 02:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ferrous Iron	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3964123-2 08/23/23 01:54

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Ferrous Iron	1000	1050	105	85.0-115	

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 08/23/23 02:05 • (MS) R3964123-3 08/23/23 02:06 • (MSD) R3964123-4 08/23/23 02:06

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Ferrous Iron	25000	14500	36900	36400	89.5	87.6	25	80.0-120			1.29	20

Method Blank (MB)

(MB) R3964115-1 08/22/23 23:40

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfide	U		25.0	50.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1647855-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1647855-01 08/22/23 23:40 • (DUP) R3964115-3 08/22/23 23:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfide	ND	ND	1	0.000		20

L1648548-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1648548-06 08/22/23 23:44 • (DUP) R3964115-6 08/22/23 23:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfide	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3964115-2 08/22/23 23:40

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Sulfide	500	453	90.6	85.0-115	

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 08/22/23 23:41 • (MS) R3964115-4 08/22/23 23:41 • (MSD) R3964115-5 08/22/23 23:42

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfide	500	ND	450	464	90.0	92.8	1	80.0-120			3.06	20

Method Blank (MB)

(MB) R3971080-2 09/08/23 22:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
DOC	415	↓	106	1000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1648412-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1648412-06 09/09/23 01:24 • (DUP) R3971080-5 09/09/23 01:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
DOC	ND	ND	1	27.2	P1	20

L1648412-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1648412-09 09/09/23 03:17 • (DUP) R3971080-6 09/09/23 03:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
DOC	ND	ND	1	62.0	P1	20

Laboratory Control Sample (LCS)

(LCS) R3971080-1 09/08/23 21:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
DOC	25000	24600	98.5	85.0-115	

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 09/08/23 23:54 • (MS) R3971080-3 09/09/23 00:21 • (MSD) R3971080-4 09/09/23 00:48

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
DOC	25000	2670	28400	28700	103	104	1	80.0-120			0.980	20

L1648412-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-12 09/09/23 04:29 • (MS) R3971080-7 09/09/23 04:58 • (MSD) R3971080-8 09/09/23 05:25

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
DOC	25000	2690	28500	28500	103	103	1	80.0-120			0.105	20

Method Blank (MB)

(MB) R3964713-1 08/22/23 09:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1648460-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1648460-01 08/22/23 23:41 • (DUP) R3964713-8 08/22/23 23:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	292000	285000	1	2.47	☒	15
Fluoride	3940	3960	1	0.504		15
Sulfate	244000	232000	1	5.33	☒	15

L1648412-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1648412-04 08/22/23 18:13 • (DUP) R3964713-5 08/22/23 19:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	29400	29600	1	0.837		15
Fluoride	770	806	1	4.54		15
Sulfate	64800	65000	1	0.292		15

Laboratory Control Sample (LCS)

(LCS) R3964713-2 08/22/23 09:59

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	40200	100	80.0-120	
Fluoride	8000	8300	104	80.0-120	
Sulfate	40000	40600	101	80.0-120	

L1648460-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1648460-01 08/22/23 23:41 • (MS) R3964713-9 08/23/23 00:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	292000	285000	0.000	1	80.0-120	<u>EV</u>
Fluoride	5000	3940	4030	1.82	1	80.0-120	<u>J6</u>
Sulfate	50000	244000	231000	0.000	1	80.0-120	<u>EV</u>

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 08/22/23 18:13 • (MS) R3964713-3 08/22/23 18:57 • (MSD) R3964713-4 08/22/23 19:12

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	29400	80200	79800	102	101	1	80.0-120			0.384	15
Fluoride	5000	770	6330	6260	111	110	1	80.0-120			1.02	15
Sulfate	50000	64800	111000	110000	91.4	90.8	1	80.0-120			0.272	15

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

Method Blank (MB)

(MB) R3965193-1 08/24/23 01:27

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		594	5000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1649008-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1649008-01 08/24/23 04:08 • (DUP) R3965193-3 08/24/23 04:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	6120	6090	1	0.433		15

L1649010-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1649010-01 08/24/23 08:05 • (DUP) R3965193-5 08/24/23 08:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	5800	5700	1	1.82		15

Laboratory Control Sample (LCS)

(LCS) R3965193-2 08/24/23 01:44

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Sulfate	40000	40800	102	80.0-120	

L1649008-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1649008-04 08/24/23 06:07 • (MS) R3965193-4 08/24/23 06:23

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	6290	56800	101	1	80.0-120	

L1649010-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1649010-02 08/24/23 09:13 • (MS) R3965193-6 08/24/23 09:30 • (MSD) R3965193-7 08/24/23 09:46

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfate	50000	10900	56200	61000	90.6	100	1	80.0-120			8.12	15

Method Blank (MB)

(MB) R3965676-2 08/25/23 11:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	753	↓	102	1000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1648356-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1648356-14 08/25/23 17:53 • (DUP) R3965676-3 08/25/23 18:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1320	2110	1	46.3	P1	20

L1648412-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1648412-02 08/25/23 18:44 • (DUP) R3965676-4 08/25/23 19:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	ND	ND	1	6.84		20

Laboratory Control Sample (LCS)

(LCS) R3965676-1 08/25/23 11:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	25000	23900	95.4	85.0-115	

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 08/25/23 19:41 • (MS) R3965676-5 08/25/23 20:05 • (MSD) R3965676-6 08/25/23 20:29

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	3190	27300	27200	96.2	95.9	1	80.0-120			0.257	20

L1648412-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-09 08/25/23 22:43 • (MS) R3965676-7 08/25/23 23:07 • (MSD) R3965676-8 08/25/23 23:31

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	ND	24500	26200	94.6	101	1	80.0-120			6.58	20

Method Blank (MB)

(MB) R3966985-2 08/29/23 11:58

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	173	↓	102	1000

1 Cp

2 Tc

3 Ss

L1648979-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1648979-01 08/29/23 15:21 • (DUP) R3966985-3 08/29/23 15:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	2710	2770	1	2.23		20

4 Cn

5 Sr

L1649243-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1649243-01 08/29/23 16:16 • (DUP) R3966985-4 08/29/23 16:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	6240	6080	1	2.63		20

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3966985-1 08/29/23 11:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	25000	25800	103	85.0-115	

L1649290-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1649290-03 08/29/23 17:37 • (MS) R3966985-5 08/29/23 18:02 • (MSD) R3966985-6 08/29/23 18:26

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	1820	28600	27900	107	104	1	80.0-120			2.23	20

L1649672-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1649672-04 08/29/23 20:39 • (MS) R3966985-7 08/29/23 21:04 • (MSD) R3966985-8 08/29/23 21:29

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	ND	26600	26700	104	105	1	80.0-120			0.526	20

Method Blank (MB)

(MB) R3967624-1 08/31/23 00:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Calcium,Dissolved	U		79.3	1000
Iron,Dissolved	U		18.0	100
Magnesium,Dissolved	U		85.3	1000
Molybdenum,Dissolved	U		1.16	5.00
Sodium,Dissolved	1260	⌵	504	3000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3968382-1 09/01/23 08:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Potassium,Dissolved	U		261	2000

Laboratory Control Sample (LCS)

(LCS) R3967624-2 08/31/23 01:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Calcium,Dissolved	10000	9820	98.2	80.0-120	
Iron,Dissolved	10000	9730	97.3	80.0-120	
Magnesium,Dissolved	10000	10100	101	80.0-120	
Molybdenum,Dissolved	1000	994	99.4	80.0-120	
Sodium,Dissolved	10000	10400	104	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3968382-2 09/01/23 08:35

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Potassium,Dissolved	10000	9570	95.7	80.0-120	

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 08/31/23 01:02 • (MS) R3967624-4 08/31/23 01:08 • (MSD) R3967624-5 08/31/23 01:10

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Calcium,Dissolved	10000	125000	133000	133000	83.1	76.0	1	75.0-125			0.537	20
Iron,Dissolved	10000	400	9910	9670	95.1	92.7	1	75.0-125			2.38	20

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 08/31/23 01:02 • (MS) R3967624-4 08/31/23 01:08 • (MSD) R3967624-5 08/31/23 01:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Magnesium,Dissolved	10000	19300	29200	29000	99.6	96.8	1	75.0-125			0.957	20
Molybdenum,Dissolved	1000	445	1460	1450	101	100	1	75.0-125			0.813	20
Sodium,Dissolved	10000	29900	39300	39200	94.4	92.6	1	75.0-125			0.448	20

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 09/01/23 08:38 • (MS) R3968382-4 09/01/23 08:44 • (MSD) R3968382-5 09/01/23 08:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Potassium,Dissolved	10000	4650	14200	14100	95.9	94.8	1	75.0-125			0.815	20

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

Method Blank (MB)

(MB) R3966524-1 08/28/23 22:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Calcium	U		79.3	1000
Iron	U		18.0	100
Molybdenum	1.52	U	1.16	5.00
Potassium	U		261	2000
Sodium	U		504	3000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3967128-1 08/29/23 15:42

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Magnesium	U		85.3	1000

Laboratory Control Sample (LCS)

(LCS) R3966524-2 08/28/23 22:08

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Calcium	10000	10000	100	80.0-120	
Iron	10000	9800	98.0	80.0-120	
Molybdenum	1000	1030	103	80.0-120	
Potassium	10000	9880	98.8	80.0-120	
Sodium	10000	10100	101	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3967128-2 08/29/23 15:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Magnesium	10000	9930	99.3	80.0-120	

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 08/28/23 22:11 • (MS) R3966524-4 08/28/23 22:17 • (MSD) R3966524-5 08/28/23 22:20

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Calcium	10000	144000	151000	149000	75.2	53.3	1	75.0-125		U	1.46	20
Iron	10000	12000	20900	20900	89.6	89.0	1	75.0-125			0.278	20

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 08/28/23 22:11 • (MS) R3966524-4 08/28/23 22:17 • (MSD) R3966524-5 08/28/23 22:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Molybdenum	1000	335	1290	1310	95.6	97.8	1	75.0-125			1.73	20
Potassium	10000	4980	14300	14400	92.9	94.2	1	75.0-125			0.885	20
Sodium	10000	29700	38900	38500	92.5	88.3	1	75.0-125			1.09	20

L1648412-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1648412-04 08/29/23 15:48 • (MS) R3967128-4 08/29/23 15:53 • (MSD) R3967128-5 08/29/23 15:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Magnesium	10000	22600	31200	31300	86.0	86.3	1	75.0-125			0.0994	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

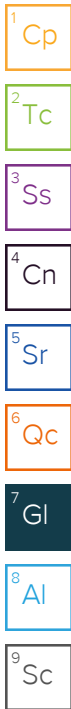
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
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
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

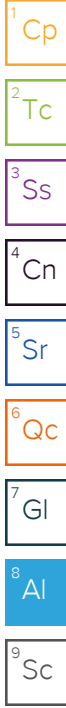
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



Company Name/Address:
SCS Engineers - KS
 8575 W. 110th Street
 Overland Park, KS 66210

Billing Information:
Accounts Payable
 8575 W. 110th Street
 Overland Park, KS 66210

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Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Report to:
Jason Franks

Email To:
 jfranks@scsengineers.com; jrockhold@scsengine

Project Description:
Energy Sibley Gen Station FAI CM

City/State
 Collected: **S:6/17 MO**

Please Circle:
 PT MT ET

Phone: **913-681-0030**

Client Project #
27222162.23 - 3

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
Matt VanderPutten

Site/Facility ID #

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Immediately Packed on Ice N Y

Date Results Needed
Std

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

MW-806R	Grab	GW	NA	8/17/23	1200	9
MW-807		GW		8/18/23	1620	9
MW-808		GW		8/18/23	1525	9
MW-809		GW		8/17/23	1410	9
MW-810		GW		8/17/23	1540	9
MW-811		GW		8/17/23	1645	9
MW-812		GW		8/17/23	1440	9
MW-813		GW		8/17/23	1310	9
MW-815		GW		8/18/23	1810	9
MW-816		GW		8/18/23	1720	9

Analysis / Container / Preservative	Pres Chk
ALKBI, ALKCA 125mlHDPE-NoPres	
Chloride, F, SO4 125mlHDPE-NoPres	
DOC 250mlHDPE-NoPres	
Dissolved Metals 250mlHDPE-NoPres	
FERUSFE 250mlAmb-HCl	
Sulfide 250mlAmb-S-NaOH+ZnAc	712
TDS 1L-HDPE NoPres	
TOC 250mlAmb-HCl	
Total Metals 250mlHDPE-HNO3	22

Pace
 PEOPLE ADVANCING SCIENCE

MT JULIET, TN
 12065 Lebanon Rd Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # **4448412**
B203

Tabl

Acctnum: **AQUAOPKS**
 Template: **T236081**
 Prelogin: **P1017957**
 PM: **206 - Jeff Carr**
 PB:

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: Exclude MW-806R for total molybdenum.

pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N

If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N
 RAD Screen <0.5 mR/hr: Y N

Samples returned via: UPS FedEx Courier Tracking #

Relinquished by: (Signature)
[Signature]

Date: **8/18/23** Time: **1:00**

Received by: (Signature)

Trip Blank Received: Yes/No
 HCL / MeOH
 TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: °C Bottles Received: **117**

If pr PH-10BDH4321 TRC-2144141 /Time
 CR6-20221V

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)
9 10

Date: **8-22-23** Time: **9:00**

Hold: Condition: NCF OK

Company Name/Address:
SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

Billing Information:
Accounts Payable
8575 W. 110th Street
Overland Park, KS 66210

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Report to:
Jason Franks

Email To:
jfranks@scsengineers.com; rockhold@scsengine

Project Description:
Evegry Sibley Gen Station FAI CM

City/State
Collected: **Sibley MO**

Please Circle:
PT MT ET

Phone: 913-681-0030

Client Project #
27222162.23 - 3

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
Matt Vanderputten

Site/Facility ID #

P.O. #

Collected by (signature):
Matt Vanderputten

Rush? (Lab MUST Be Notified)

Quote #

Immediately Packed on Ice N Y

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Date Results Needed

No.
of
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALKBI, ALKCA 125mlHDPE-NoPres	Chloride, F, SO4 125mlHDPE-NoPres	DOC 250mlHDPE-NoPres	Dissolved Metals 250mlHDPE-NoPres	FERUSFE 250ml/Amb-HCl	Sulfide 250ml/Amb-S-NaOH+ZnAc	TDS 1L-HDPE NoPres	TOC 250ml/Amb-HCl	Total Metals 250mlHDPE-HNO3
MW-819	Grab	GW	NA			9	X	X	X	X	X	X	X	X	X
MW-822		GW		8/18/23	1425	9	X	X	X	X	X	X	X	X	X
MW-809 MS/MSD		GW		8/17/23	1410	9	X	X	X	X	X	X	X	X	X
DuP #		GW		8/17/23	1410	9	X	X	X	X	X	X	X	X	X

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # **U148412**
Table #
Acctnum: **AQUAOPKS**
Template: **T236081**
Prelogin: **P1017957**
PM: **206 - Jeff Carr**
PB:
Shipped Via: **FedEX Ground**
Remarks | Sample # (lab only)

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: Exclude MW-806R for total molybdenum.

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist
COC Seal Present/Intact: NP N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headpace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Samples returned via:
 UPS FedEx Courier

Tracking #

Relinquished by: (Signature)
Matt Vanderputten

Date: **8/10/23** Time: **6:00**

Received by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: °C Bottles Received:

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)
7 10

Date: **8-22-23** Time: **9:00**

Hold: Condition: **NCF** OK

WDR 412

Tracking Numbers		Temperature
6481 5470 3236		DRAS 1.7 to 21.7
6481 5470 3219		DRAS 3.8 to 3.8
6481 5470 3220		DRAS 2.2 to 0.2
6481 5470 3241		DRAS 0.5 to 0.5
6481 5470 3208		DRAS 5.8 to 5.8

8/22-NCF-11648412 AQUAOPKS

Shortholds

Time estimate: 0h

Time spent: 0h

Members



Hailey Melson (responsible)



Jeff Carr

Due on 25 August 2023 8:00 AM for target Done

- Parameter(s) past holding time
- Temperature not in range
- Improper container type
- pH not in range
- Insufficient sample volume
- Sample is biphasic
- Vials received with headspace
- Broken container
- Sufficient sample remains
- If broken container: Insufficient packing material around container
- If broken container: Insufficient packing material inside cooler
- If broken container: Improper handling by carrier: _____
- If broken container: Sample was frozen
- If broken container: Container lid not intact
- Client informed by Call
- Client informed by Email
- Client informed by Voicemail
- Date/Time: _____
- PM initials: _____
- Client Contact: _____

Comments

Hailey Melson

22 August 2023 12:36 PM

DOC received out of hold for all IDs.

Jeff Carr

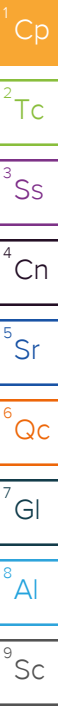
22 August 2023 3:06 PM

Proceed

Hailey Melson

22 August 2023 3:16 PM

Done



SCS Engineers - KS

Sample Delivery Group: L1679689
Samples Received: 11/18/2023
Project Number: 27213169.23 - B
Description: Evergy Sibley Gen Station GW 2023-24

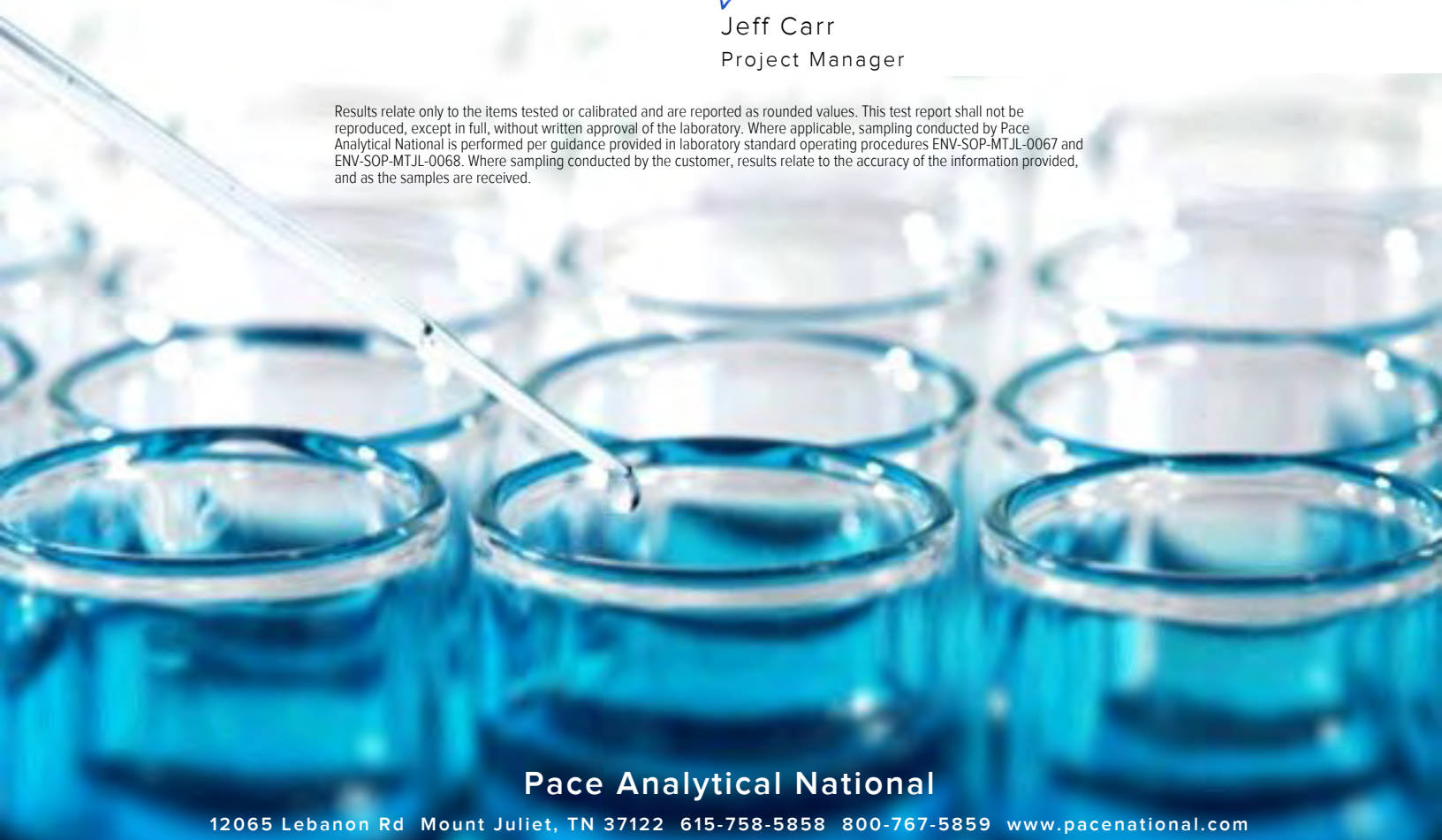
Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
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

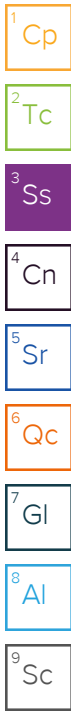
Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	2 Tc
Cn: Case Narrative	5	
Sr: Sample Results	6	3 Ss
MW-801 L1679689-01	6	
MW-802 L1679689-02	7	4 Cn
MW-803 L1679689-03	8	5 Sr
MW-804 L1679689-04	9	
MW-805 L1679689-05	10	6 Qc
MW-806R L1679689-06	11	
DUPLICATE L1679689-07	12	7 Gl
Qc: Quality Control Summary	13	8 Al
Gravimetric Analysis by Method 2540 C-2011	13	
Wet Chemistry by Method 9056A	17	
Mercury by Method 7470A	19	
Metals (ICP) by Method 6010D	21	
Metals (ICPMS) by Method 6020B	22	
Gl: Glossary of Terms	23	
Al: Accreditations & Locations	24	
Sc: Sample Chain of Custody	25	9 Sc

SAMPLE SUMMARY

MW-801 L1679689-01 GW

Collected by Jason R Franks
Collected date/time 11/15/23 11:45
Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2175523	1	11/21/23 17:47	11/21/23 19:15	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 13:36	11/29/23 13:36	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2174139	1	11/26/23 14:15	11/27/23 15:37	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174862	1	11/28/23 11:07	11/28/23 16:07	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2174900	1	11/29/23 11:17	12/04/23 11:41	SJM	Mt. Juliet, TN



MW-802 L1679689-02 GW

Collected by Jason R Franks
Collected date/time 11/15/23 12:40
Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2175515	1	11/22/23 17:42	11/23/23 00:47	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 14:04	11/29/23 14:04	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2174139	1	11/26/23 14:15	11/27/23 15:39	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174862	1	11/28/23 11:07	11/28/23 16:09	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2174900	1	11/29/23 11:17	12/04/23 11:44	SJM	Mt. Juliet, TN

MW-803 L1679689-03 GW

Collected by Jason R Franks
Collected date/time 11/15/23 15:25
Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2175519	1	11/22/23 18:16	11/23/23 11:00	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 14:17	11/29/23 14:17	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2174139	1	11/26/23 14:15	11/27/23 15:42	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174862	1	11/28/23 11:07	11/28/23 16:18	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2174900	1	11/29/23 11:17	12/04/23 11:47	SJM	Mt. Juliet, TN

MW-804 L1679689-04 GW

Collected by Jason R Franks
Collected date/time 11/15/23 15:50
Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2175519	1	11/22/23 18:16	11/23/23 11:00	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 14:31	11/29/23 14:31	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2174139	1	11/26/23 14:15	11/27/23 15:49	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174862	1	11/28/23 11:07	11/28/23 16:21	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2174900	1	11/29/23 11:17	12/04/23 11:50	SJM	Mt. Juliet, TN

MW-805 L1679689-05 GW

Collected by Jason R Franks
Collected date/time 11/15/23 14:50
Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2175519	1	11/22/23 18:16	11/23/23 11:00	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 14:44	11/29/23 14:44	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2174139	1	11/26/23 14:15	11/27/23 15:52	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174862	1	11/28/23 11:07	11/28/23 16:24	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2174900	1	11/29/23 11:17	12/04/23 12:00	SJM	Mt. Juliet, TN

SAMPLE SUMMARY

MW-806R L1679689-06 GW

Collected by Jason R Franks
 Collected date/time 11/15/23 13:20
 Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2175523	1	11/21/23 17:47	11/21/23 19:15	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 14:58	11/29/23 14:58	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	5	11/29/23 16:04	11/29/23 16:04	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2174140	1	11/26/23 18:10	11/28/23 10:51	LAS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174862	1	11/28/23 11:07	11/28/23 15:50	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2174900	1	11/29/23 11:17	12/04/23 11:28	SJM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

DUPLICATE L1679689-07 GW

Collected by Jason R Franks
 Collected date/time 11/15/23 13:20
 Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2175525	1	11/21/23 16:17	11/21/23 17:21	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 16:17	11/29/23 16:17	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	5	11/29/23 16:30	11/29/23 16:30	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2174139	1	11/26/23 14:15	11/27/23 15:55	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174862	1	11/28/23 11:07	11/28/23 16:27	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2174900	1	11/29/23 11:17	12/04/23 12:04	SJM	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 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.



Jeff Carr
Project Manager

Project Narrative

The TDS for samples L1679689-02 thru -05 were analyzed one day outside of the recommended 7 day hold time due to a laboratory error.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	480000		10000	1	11/21/2023 19:15	WG2175523

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	85200		1000	1	11/29/2023 13:36	WG2179188
Fluoride	154		150	1	11/29/2023 13:36	WG2179188
Sulfate	37200		5000	1	11/29/2023 13:36	WG2179188

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	11/27/2023 15:37	WG2174139

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	122		5.00	1	11/28/2023 16:07	WG2174862
Boron	ND		200	1	11/28/2023 16:07	WG2174862
Calcium	114000		1000	1	11/28/2023 16:07	WG2174862
Chromium	ND		10.0	1	11/28/2023 16:07	WG2174862
Lithium	ND		15.0	1	11/28/2023 16:07	WG2174862
Molybdenum	ND		5.00	1	11/28/2023 16:07	WG2174862

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	12/04/2023 11:41	WG2174900
Cadmium	ND		1.00	1	12/04/2023 11:41	WG2174900
Cobalt	ND		2.00	1	12/04/2023 11:41	WG2174900
Lead	ND		2.00	1	12/04/2023 11:41	WG2174900
Selenium	2.63		2.00	1	12/04/2023 11:41	WG2174900

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	271000	Q	10000	1	11/23/2023 00:47	WG2175515

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	38000		1000	1	11/29/2023 14:04	WG2179188
Fluoride	ND		150	1	11/29/2023 14:04	WG2179188
Sulfate	41800		5000	1	11/29/2023 14:04	WG2179188

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	11/27/2023 15:39	WG2174139

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	185		5.00	1	11/28/2023 16:09	WG2174862
Boron	ND		200	1	11/28/2023 16:09	WG2174862
Calcium	43200		1000	1	11/28/2023 16:09	WG2174862
Chromium	ND		10.0	1	11/28/2023 16:09	WG2174862
Lithium	ND		15.0	1	11/28/2023 16:09	WG2174862
Molybdenum	ND		5.00	1	11/28/2023 16:09	WG2174862

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	2.38		2.00	1	12/04/2023 11:44	WG2174900
Cadmium	ND		1.00	1	12/04/2023 11:44	WG2174900
Cobalt	ND		2.00	1	12/04/2023 11:44	WG2174900
Lead	ND		2.00	1	12/04/2023 11:44	WG2174900
Selenium	2.45		2.00	1	12/04/2023 11:44	WG2174900

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	479000	Q	10000	1	11/23/2023 11:00	WG2175519

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	24200		1000	1	11/29/2023 14:17	WG2179188
Fluoride	260		150	1	11/29/2023 14:17	WG2179188
Sulfate	106000		5000	1	11/29/2023 14:17	WG2179188

3 Ss

4 Cn

5 Sr

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	11/27/2023 15:42	WG2174139

6 Qc

7 Gl

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	123		5.00	1	11/28/2023 16:18	WG2174862
Boron	2930		200	1	11/28/2023 16:18	WG2174862
Calcium	115000		1000	1	11/28/2023 16:18	WG2174862
Chromium	ND		10.0	1	11/28/2023 16:18	WG2174862
Lithium	15.8		15.0	1	11/28/2023 16:18	WG2174862
Molybdenum	ND		5.00	1	11/28/2023 16:18	WG2174862

8 Al

9 Sc

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	2.39		2.00	1	12/04/2023 11:47	WG2174900
Cadmium	ND		1.00	1	12/04/2023 11:47	WG2174900
Cobalt	ND		2.00	1	12/04/2023 11:47	WG2174900
Lead	ND		2.00	1	12/04/2023 11:47	WG2174900
Selenium	ND		2.00	1	12/04/2023 11:47	WG2174900

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	540000	Q	10000	1	11/23/2023 11:00	WG2175519

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	15900		1000	1	11/29/2023 14:31	WG2179188
Fluoride	233		150	1	11/29/2023 14:31	WG2179188
Sulfate	ND		5000	1	11/29/2023 14:31	WG2179188

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	11/27/2023 15:49	WG2174139

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	411		5.00	1	11/28/2023 16:21	WG2174862
Boron	5950		200	1	11/28/2023 16:21	WG2174862
Calcium	139000		1000	1	11/28/2023 16:21	WG2174862
Chromium	ND		10.0	1	11/28/2023 16:21	WG2174862
Lithium	22.0		15.0	1	11/28/2023 16:21	WG2174862
Molybdenum	ND		5.00	1	11/28/2023 16:21	WG2174862

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	12/04/2023 11:50	WG2174900
Cadmium	ND		1.00	1	12/04/2023 11:50	WG2174900
Cobalt	ND		2.00	1	12/04/2023 11:50	WG2174900
Lead	ND		2.00	1	12/04/2023 11:50	WG2174900
Selenium	ND		2.00	1	12/04/2023 11:50	WG2174900

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	320000	Q	10000	1	11/23/2023 11:00	WG2175519

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	7020		1000	1	11/29/2023 14:44	WG2179188
Fluoride	179		150	1	11/29/2023 14:44	WG2179188
Sulfate	41700		5000	1	11/29/2023 14:44	WG2179188

3 Ss

4 Cn

5 Sr

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	11/27/2023 15:52	WG2174139

6 Qc

7 Gl

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	142		5.00	1	11/28/2023 16:24	WG2174862
Boron	ND		200	1	11/28/2023 16:24	WG2174862
Calcium	92200		1000	1	11/28/2023 16:24	WG2174862
Chromium	ND		10.0	1	11/28/2023 16:24	WG2174862
Lithium	ND		15.0	1	11/28/2023 16:24	WG2174862
Molybdenum	ND		5.00	1	11/28/2023 16:24	WG2174862

8 Al

9 Sc

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	12/04/2023 12:00	WG2174900
Cadmium	ND		1.00	1	12/04/2023 12:00	WG2174900
Cobalt	ND		2.00	1	12/04/2023 12:00	WG2174900
Lead	ND		2.00	1	12/04/2023 12:00	WG2174900
Selenium	ND		2.00	1	12/04/2023 12:00	WG2174900

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	689000		13300	1	11/21/2023 19:15	WG2175523

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	30400		1000	1	11/29/2023 14:58	WG2179188
Fluoride	182		150	1	11/29/2023 14:58	WG2179188
Sulfate	258000		25000	5	11/29/2023 16:04	WG2179188

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	11/28/2023 10:51	WG2174140

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	78.8		5.00	1	11/28/2023 15:50	WG2174862
Boron	3600		200	1	11/28/2023 15:50	WG2174862
Calcium	161000		1000	1	11/28/2023 15:50	WG2174862
Chromium	ND		10.0	1	11/28/2023 15:50	WG2174862
Lithium	19.0		15.0	1	11/28/2023 15:50	WG2174862
Molybdenum	1640		5.00	1	11/28/2023 15:50	WG2174862

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	12/04/2023 11:28	WG2174900
Cadmium	ND		1.00	1	12/04/2023 11:28	WG2174900
Cobalt	ND		2.00	1	12/04/2023 11:28	WG2174900
Lead	ND		2.00	1	12/04/2023 11:28	WG2174900
Selenium	ND		2.00	1	12/04/2023 11:28	WG2174900

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	700000		13300	1	11/21/2023 17:21	WG2175525

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	30500		1000	1	11/29/2023 16:17	WG2179188
Fluoride	193		150	1	11/29/2023 16:17	WG2179188
Sulfate	250000		25000	5	11/29/2023 16:30	WG2179188

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	11/27/2023 15:55	WG2174139

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	83.6		5.00	1	11/28/2023 16:27	WG2174862
Boron	3600		200	1	11/28/2023 16:27	WG2174862
Calcium	164000		1000	1	11/28/2023 16:27	WG2174862
Chromium	ND		10.0	1	11/28/2023 16:27	WG2174862
Lithium	19.6		15.0	1	11/28/2023 16:27	WG2174862
Molybdenum	1600		5.00	1	11/28/2023 16:27	WG2174862

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	2.33		2.00	1	12/04/2023 12:04	WG2174900
Cadmium	ND		1.00	1	12/04/2023 12:04	WG2174900
Cobalt	ND		2.00	1	12/04/2023 12:04	WG2174900
Lead	ND		2.00	1	12/04/2023 12:04	WG2174900
Selenium	ND		2.00	1	12/04/2023 12:04	WG2174900

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4004330-1 11/23/23 00:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U	↓	10000	10000

¹Cp

²Tc

³Ss

L1678289-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1678289-01 11/23/23 00:47 • (DUP) R4004330-3 11/23/23 00:47

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	259000	244000	1	5.96	↓3	5

⁴Cn

⁵Sr

⁶Qc

L1678612-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1678612-03 11/23/23 00:47 • (DUP) R4004330-4 11/23/23 00:47

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	798000	822000	1	2.96		5

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4004330-2 11/23/23 00:47

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8750000	99.4	85.0-115	

Method Blank (MB)

(MB) R4004324-1 11/23/23 11:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1678328-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1678328-01 11/23/23 11:00 • (DUP) R4004324-3 11/23/23 11:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	371000	387000	1	4.22		5

L1678611-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1678611-03 11/23/23 11:00 • (DUP) R4004324-4 11/23/23 11:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	2060000	2470000	1	18.3	J3	5

Laboratory Control Sample (LCS)

(LCS) R4004324-2 11/23/23 11:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	9640000	110	85.0-115	

Method Blank (MB)

(MB) R4004038-1 11/21/23 19:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

¹Cp

²Tc

³Ss

L1678834-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1678834-01 11/21/23 19:15 • (DUP) R4004038-3 11/21/23 19:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	249000	245000	1	1.62		5

⁴Cn

⁵Sr

⁶Qc

L1678919-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1678919-03 11/21/23 19:15 • (DUP) R4004038-4 11/21/23 19:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1330000	1350000	1	0.934		5

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4004038-2 11/21/23 19:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8170000	92.8	85.0-115	

Method Blank (MB)

(MB) R4003916-1 11/21/23 17:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

¹Cp

²Tc

³Ss

L1678613-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1678613-01 11/21/23 17:21 • (DUP) R4003916-3 11/21/23 17:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1370000	1330000	1	3.34		5

⁴Cn

⁵Sr

L1678613-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1678613-02 11/21/23 17:21 • (DUP) R4003916-4 11/21/23 17:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	ND	ND	1	0.000		5

⁶Qc

⁷Gl

⁸Al

Laboratory Control Sample (LCS)

(LCS) R4003916-2 11/21/23 17:21

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8770000	99.7	85.0-115	

⁹Sc

Method Blank (MB)

(MB) R4006465-1 11/29/23 09:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

L1679689-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1679689-01 11/29/23 13:36 • (DUP) R4006465-3 11/29/23 13:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	85200	87600	1	2.73		15
Fluoride	154	155	1	0.972		15
Sulfate	37200	37000	1	0.597		15

L1679691-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1679691-09 11/29/23 18:42 • (DUP) R4006465-6 11/29/23 18:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	53600	52700	1	1.58		15
Fluoride	562	637	1	12.4		15
Sulfate	36100	36200	1	0.141		15

Laboratory Control Sample (LCS)

(LCS) R4006465-2 11/29/23 09:18

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Chloride	40000	41400	103	80.0-120	
Fluoride	8000	8400	105	80.0-120	
Sulfate	40000	38500	96.3	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1679689-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679689-06 11/29/23 14:58 • (MS) R4006465-4 11/29/23 15:39 • (MSD) R4006465-5 11/29/23 15:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	30400	67500	67800	92.8	93.5	1	80.0-120			0.399	15
Fluoride	8000	182	8950	9230	110	113	1	80.0-120			3.08	15
Sulfate	40000	257000	251000	255000	0.000	0.000	1	80.0-120	<u>EV</u>	<u>EV</u>	1.40	15

L1679691-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679691-09 11/29/23 18:42 • (MS) R4006465-7 11/29/23 19:09 • (MSD) R4006465-8 11/29/23 19:22

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	53600	84800	84900	78.1	78.4	1	80.0-120	<u>J6</u>	<u>J6</u>	0.118	15
Fluoride	8000	562	9400	9670	110	114	1	80.0-120			2.84	15
Sulfate	40000	36100	71400	71500	88.1	88.3	1	80.0-120			0.0979	15

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

Method Blank (MB)

(MB) R4004758-1 11/27/23 15:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Mercury	U		0.100	0.200

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R4004758-2 11/27/23 15:19

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Mercury	3.00	3.01	100	80.0-120	

4 Cn

5 Sr

L1679636-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679636-11 11/27/23 15:22 • (MS) R4004758-3 11/27/23 15:24 • (MSD) R4004758-4 11/27/23 15:27

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Mercury	3.00	ND	3.01	3.04	100	101	1	75.0-125			1.05	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4005090-1 11/28/23 10:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.100	0.200

Laboratory Control Sample (LCS)

(LCS) R4005090-2 11/28/23 10:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	3.04	101	80.0-120	

L1679689-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679689-06 11/28/23 10:51 • (MS) R4005090-3 11/28/23 10:58 • (MSD) R4005090-4 11/28/23 11:01

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	ND	2.82	2.91	93.9	97.0	1	75.0-125			3.19	20

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

Method Blank (MB)

(MB) R4005448-1 11/28/23 15:44

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	U		0.736	5.00
Boron	U		20.0	200
Calcium	U		79.3	1000
Chromium	U		1.40	10.0
Lithium	U		4.85	15.0
Molybdenum	U		1.16	5.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4005448-2 11/28/23 15:47

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	1010	101	80.0-120	
Boron	1000	956	95.6	80.0-120	
Calcium	10000	10000	100	80.0-120	
Chromium	1000	946	94.6	80.0-120	
Lithium	1000	976	97.6	80.0-120	
Molybdenum	1000	978	97.8	80.0-120	

L1679689-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679689-06 11/28/23 15:50 • (MS) R4005448-4 11/28/23 15:55 • (MSD) R4005448-5 11/28/23 15:58

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	78.8	1080	1080	100	101	1	75.0-125			0.0510	20
Boron	1000	3600	4570	4550	96.4	95.2	1	75.0-125			0.249	20
Calcium	10000	161000	171000	170000	95.8	88.6	1	75.0-125			0.424	20
Chromium	1000	ND	953	955	95.3	95.5	1	75.0-125			0.171	20
Lithium	1000	19.0	1010	1010	99.4	99.6	1	75.0-125			0.196	20
Molybdenum	1000	1640	2610	2600	97.1	96.3	1	75.0-125			0.298	20

Method Blank (MB)

(MB) R4007781-1 12/04/23 11:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic	U		0.180	2.00
Cadmium	U		0.150	1.00
Cobalt	U		0.0596	2.00
Lead	U		0.849	2.00
Selenium	U		0.300	2.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4007781-2 12/04/23 11:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	50.0	54.6	109	80.0-120	
Cadmium	50.0	54.9	110	80.0-120	
Cobalt	50.0	55.3	111	80.0-120	
Lead	50.0	54.1	108	80.0-120	
Selenium	50.0	53.4	107	80.0-120	

L1679689-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679689-06 12/04/23 11:28 • (MS) R4007781-4 12/04/23 11:34 • (MSD) R4007781-5 12/04/23 11:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	50.0	ND	55.9	55.9	108	108	1	75.0-125			0.101	20
Cadmium	50.0	ND	55.8	56.4	111	112	1	75.0-125			1.13	20
Cobalt	50.0	ND	54.7	53.4	109	106	1	75.0-125			2.35	20
Lead	50.0	ND	51.9	54.9	104	110	1	75.0-125			5.66	20
Selenium	50.0	ND	53.3	53.4	107	107	1	75.0-125			0.110	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

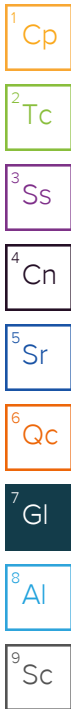
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

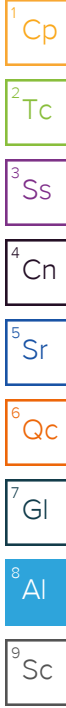
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



Company Name/Address:
SCS Engineers - KS
 8575 W. 110th Street
 Overland Park, KS 66210

Billing Information:
 Accounts Payable
 8575 W. 110th Street
 Overland Park, KS 66210

Analysis / Container / Preservative	Pres Chk
	42



MT JULIET, TN

12065 Lebanon Rd. Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at:
<https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

Report to:
Jason Franks

Email To:
 jfranks@scsengineers.com; jrockhold@scsengine

Project Description:
Energy Sibley Gen Station GW 2023-24

City/State Collected:

Please Circle:
 PT MT **CT** ET

Phone: **913-681-0030**

Client Project #
27213169.23 - B

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
JASON R FRANKS

Site/Facility ID #

P.O. #

Collected by (signature):
Jason R. Franks

Rush? (Lab MUST Be Notified)
 ___ Same Day ___ Five Day
 ___ Next Day ___ 5 Day (Rad Only)
 ___ Two Day ___ 10 Day (Rad Only)
 ___ Three Day

Quote #

Immediately Packed on Ice N ___ Y ___

Date Results Needed

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride, F, SO4 125mIHDPE-NoPres	Metals 250mIHDPE-HNO3	TDS 1L-HDPE NoPres				
MW-801	GRAB	GW	-	11/15/23	1145	3	X	X	X				
MW-802		GW	-		1240	3	X	X	X				
MW-803		GW	-		1525	3	X	X	X				
MW-804		GW	-		1550	3	X	X	X				
MW-805		GW	-		1450	3	X	X	X				
MW-806R		GW	-		1320	3	X	X	X				
806R MS/MSD DUPLICATE		GW	-		1320	3	X	X	X				
		GW	-		1320	3	X	X	X				

SDG # **41679689**
 B126

Acctnum: **AQUAOPKS**
 Template: **T198904**
 Prelogin: **P1033759**
 PM: **206 - Jeff Carr**
 PB:

Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	-01
	-02
	-03
	-04
	-05
	-06
	-07
	-08

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: **6010 - Ba,B,Ca,Cr,Li,Mo**
6020 - As,Cd,Co,Pb,Se
7470 - Hg

pH ___ Temp ___
 Flow ___ Other ___

Samples returned via:
 ___ UPS ___ FedEx ___ Courier ___

Sample Receipt Checklist

COC Seal Present/Intact:	___ NP ___ Y ___ N
COC Signed/Accurate:	___ Y ___ N
Bottles arrive intact:	___ Y ___ N
Correct bottles used:	___ Y ___ N
Sufficient volume sent:	___ Y ___ N
IF Applicable	
VOA Zero Headspace:	___ Y ___ N
Preservation Correct/Checked:	___ Y ___ N
RAD Screen <0.5 mR/hr:	___ Y ___ N

Relinquished by: (Signature)
Jason R. Franks

Date: **11/17/23**
 Time: **1600**

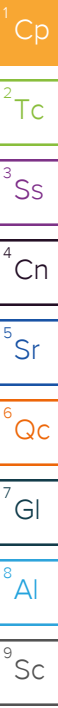
Received by: (Signature)
 Received by: (Signature)
 Received for lab by: (Signature)

Trip Blank Received: Yes (No) HCL/MeOH TBR
 Temp: °C
 Bottles Received: **24**
 Date: **11/18/23**
 Time: **9:00**

If pre PH-10BDH4321 TRC-2362367 CR6-20221V
 Hold: **(Circled)**
 Condition: NCF / OK

46791889

Tracking Numbers		Temperature
6481 5470 4925		CCA8 1.3 to 1.3
6481 5470 4811		CCA8 2.3 to 2.3
6481 5470 4877		CCA8 0.1 to 0.1
6481 5470 4872		CCA8 3.6 to 3.6
6481 5470 5005		CCA8 1.3 to 1.3
7074 9788 2888		CCA8 3.0 to 3.0
6481 5470 4800		CCA8 2.2 to 2.2
7019 5686 3190		CCA8 0.1 to 0.1
6481 5470 4991		CCA8 1.1 to 1.1
6481 5470 4894		CCA8 1.3 to 1.3
6481 5470 4855		CCA8 1.5 to 1.5
6481 5470 3675		CCA8 4.1 to 4.1
6481 5470 4888		CCA8 3.6 to 3.6



SCS Engineers - KS

Sample Delivery Group: L1679702
Samples Received: 11/18/2023
Project Number: 27213169.23 - B
Description: Evergy Sibley Gen Station GW 2023-24

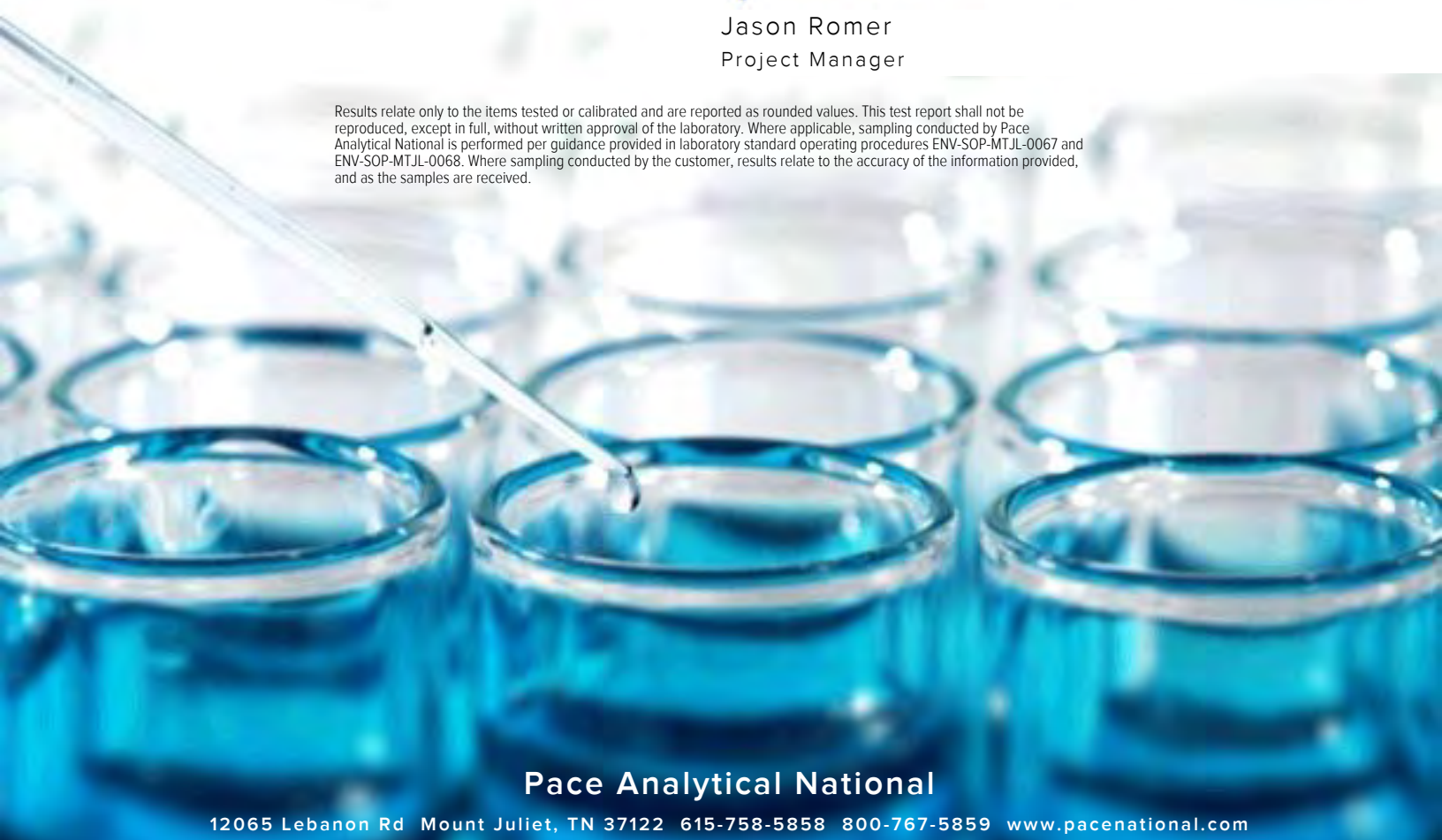
Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



Jason Romer
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

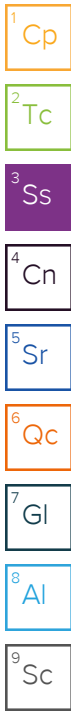
Cp: Cover Page	1	¹Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	²Tc
Cn: Case Narrative	5	
Sr: Sample Results	6	³Ss
MW-801 L1679702-01	6	
MW-802 L1679702-02	7	⁴Cn
MW-803 L1679702-03	8	⁵Sr
MW-804 L1679702-04	9	
MW-805 L1679702-05	10	⁶Qc
MW-806R L1679702-06	11	
DUPLICATE L1679702-07	12	⁷Gl
Qc: Quality Control Summary	13	⁸Al
Radiochemistry by Method 904/9320	13	
Radiochemistry by Method SM7500Ra B M	14	⁹Sc
Gl: Glossary of Terms	15	
Al: Accreditations & Locations	16	
Sc: Sample Chain of Custody	17	

SAMPLE SUMMARY

MW-801 L1679702-01 Non-Potable Water

Collected by Jason R. Frank
 Collected date/time 11/15/23 11:45
 Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2187194	1	12/11/23 17:40	12/14/23 21:51	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN



MW-802 L1679702-02 Non-Potable Water

Collected by Jason R. Frank
 Collected date/time 11/15/23 12:40
 Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2187194	1	12/11/23 17:40	12/14/23 21:51	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN

MW-803 L1679702-03 Non-Potable Water

Collected by Jason R. Frank
 Collected date/time 11/15/23 15:25
 Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2187194	1	12/11/23 17:40	12/14/23 21:51	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN

MW-804 L1679702-04 Non-Potable Water

Collected by Jason R. Frank
 Collected date/time 11/15/23 15:50
 Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2187194	1	12/11/23 17:40	12/14/23 21:51	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN

MW-805 L1679702-05 Non-Potable Water

Collected by Jason R. Frank
 Collected date/time 11/15/23 14:50
 Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2187194	1	12/11/23 17:40	12/14/23 21:51	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN

MW-806R L1679702-06 Non-Potable Water

Collected by Jason R. Frank
 Collected date/time 11/15/23 13:20
 Received date/time 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2187194	1	12/11/23 17:40	12/14/23 21:51	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

DUPLICATE L1679702-07 Non-Potable Water

Collected by: Jason R. Frank
 Collected date/time: 11/15/23 13:20
 Received date/time: 11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2187194	1	12/11/23 17:40	12/14/23 21:51	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2187519	1	12/14/23 07:42	12/15/23 14:19	RGT	Mt. Juliet, TN

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

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.



Jason Romer
Project Manager

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	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.275	<u>U</u>	0.334		0.630		12/14/2023 21:51	WG2187194
(T) Barium	79.9					30.0-143	12/14/2023 21:51	WG2187194
(T) Yttrium	114					30.0-136	12/14/2023 21:51	WG2187194

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

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.373	<u>J</u>	0.367	0.673	12/15/2023 14:19	WG2187519

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0979	<u>J</u>	0.152	0.0586	0.236	0.179	12/15/2023 14:19	WG2187519
(T) Barium-133	81.2					30.0-143	12/15/2023 14:19	WG2187519

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.222	<u>U</u>	0.448		0.862		12/14/2023 21:51	WG2187194
(T) Barium	80.9					30.0-143	12/14/2023 21:51	WG2187194
(T) Yttrium	118					30.0-136	12/14/2023 21:51	WG2187194

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

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.804	<u>J</u>	0.579	0.884	12/15/2023 14:19	WG2187519

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.804		0.367	0.149	0.197	0.163	12/15/2023 14:19	WG2187519
(T) Barium-133	78.6					30.0-143	12/15/2023 14:19	WG2187519

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.344	J	0.267		0.501		12/14/2023 21:51	WG2187194
(T) Barium	92.1					30.0-143	12/14/2023 21:51	WG2187194
(T) Yttrium	99.2					30.0-136	12/14/2023 21:51	WG2187194

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.460	J	0.304	0.537	12/15/2023 14:19	WG2187519

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.117	J	0.146	0.0568	0.192	0.159	12/15/2023 14:19	WG2187519
(T) Barium-133	78.0					30.0-143	12/15/2023 14:19	WG2187519

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.245	<u>U</u>	0.298		0.563		12/14/2023 21:51	WG2187194
(T) Barium	81.6					30.0-143	12/14/2023 21:51	WG2187194
(T) Yttrium	106					30.0-136	12/14/2023 21:51	WG2187194

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.645		0.385	0.588	12/15/2023 14:19	WG2187519

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.400		0.243	0.108	0.171	0.141	12/15/2023 14:19	WG2187519
(T) Barium-133	86.7					30.0-143	12/15/2023 14:19	WG2187519

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.663		0.215		0.390		12/14/2023 21:51	WG2187194
(T) Barium	87.1					30.0-143	12/14/2023 21:51	WG2187194
(T) Yttrium	120					30.0-136	12/14/2023 21:51	WG2187194

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.03		0.353	0.461	12/15/2023 14:19	WG2187519

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.362		0.280	0.0911	0.246	0.203	12/15/2023 14:19	WG2187519
(T) Barium-133	64.1					30.0-143	12/15/2023 14:19	WG2187519

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.379	J	0.261		0.488		12/14/2023 21:51	WG2187194
(T) Barium	104					30.0-143	12/14/2023 21:51	WG2187194
(T) Yttrium	113					30.0-136	12/14/2023 21:51	WG2187194

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

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.616		0.342	0.539	12/15/2023 14:19	WG2187519

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.238		0.221	0.0775	0.228	0.189	12/15/2023 14:19	WG2187519
(T) Barium-133	69.4					30.0-143	12/15/2023 14:19	WG2187519

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.478		0.224		0.414		12/14/2023 21:51	WG2187194
(T) Barium	88.0					30.0-143	12/14/2023 21:51	WG2187194
(T) Yttrium	115					30.0-136	12/14/2023 21:51	WG2187194

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.505		0.246	0.475	12/15/2023 14:19	WG2187519

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0265	<u>U</u>	0.102	0.0335	0.233	0.183	12/15/2023 14:19	WG2187519
(T) Barium-133	73.2					30.0-143	12/15/2023 14:19	WG2187519

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4014457-1 12/14/23 21:51

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.231	<u>U</u>	0.146	0.290	
(T) Barium	96.5		96.5		
(T) Yttrium	111		111		

L1679743-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1679743-01 12/14/23 21:51 • (DUP) R4014457-5 12/14/23 21:51

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	5.56	0.323	0.463		5.15	0.421	0.663		7.66	0.773		20	3
(T) Barium	98.2				106	106							
(T) Yttrium	99.8				110	110							

Laboratory Control Sample (LCS)

(LCS) R4014457-2 12/14/23 21:51

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.02	80.4	80.0-120	
(T) Barium			77.1		
(T) Yttrium			112		

L1679702-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679702-06 12/14/23 21:51 • (MS) R4014457-3 12/14/23 21:51 • (MSD) R4014457-4 12/14/23 21:51

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	0.379	8.57	8.19	81.9	78.1	1	70.0-130			4.55		20
(T) Barium		104			96.2	93.2							
(T) Yttrium		113			99.4	105							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4014464-1 12/15/23 14:19

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0216	<u>U</u>	0.0363	0.0598	0.0485
(T) Barium-133	60.2		60.2		

L1679743-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1679743-05 12/15/23 14:19 • (DUP) R4014464-5 12/15/23 14:19

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.277	0.257	0.266	0.219	0.886	0.444	0.313	0.238	105	1.19		20	3
(T) Barium-133	60.1				63.0	63.0							

Laboratory Control Sample (LCS)

(LCS) R4014464-2 12/15/23 14:19

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.56	111	80.0-120	
(T) Barium-133			62.0		

L1679702-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679702-06 12/15/23 14:19 • (MS) R4014464-3 12/15/23 14:19 • (MSD) R4014464-4 12/15/23 14:19

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	20.0	0.238	21.7	20.6	108	102	1	75.0-125			5.34		20
(T) Barium-133		69.4			57.2	72.4							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier Description

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCREDITATIONS & LOCATIONS

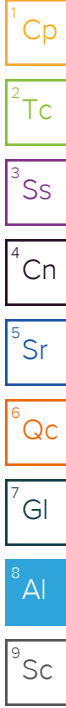
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

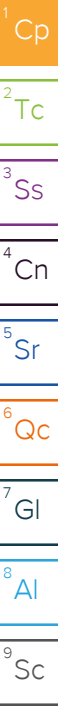
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Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina 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.





SCS Engineers - KS

Sample Delivery Group: L1679623
Samples Received: 11/17/2023
Project Number: 27222162.23 - 3
Description: Evergy Sibley Gen Station FAI CM

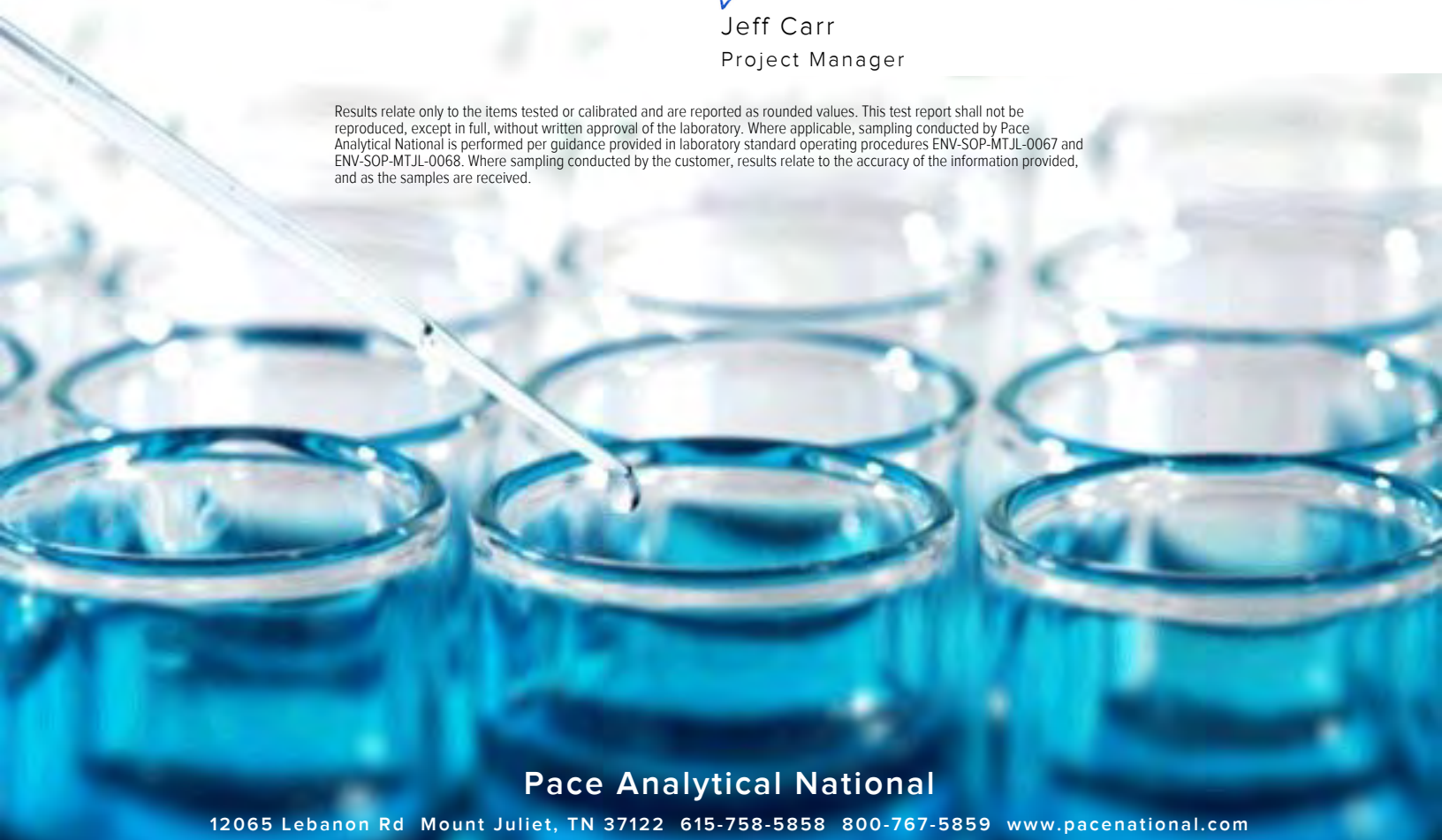
Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
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.

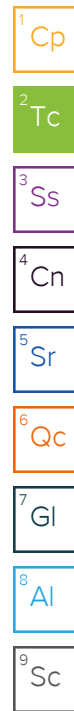


Pace Analytical National

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

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	7
Sr: Sample Results	8
MW-806R L1679623-01	8
MW-807 L1679623-02	10
MW-808 L1679623-03	12
MW-809 L1679623-04	14
MW-810 L1679623-05	16
MW-811 L1679623-06	18
MW-812 L1679623-07	20
MW-813 L1679623-08	22
MW-815 L1679623-09	24
MW-816 L1679623-10	26
MW-819 L1679623-11	28
MW-822 L1679623-12	30
Qc: Quality Control Summary	32
Gravimetric Analysis by Method 2540 C-2011	32
Wet Chemistry by Method 2320 B-2011	37
Wet Chemistry by Method 3500Fe B-2011	39
Wet Chemistry by Method 4500S2 D-2011	40
Wet Chemistry by Method 5310 B-2014	42
Wet Chemistry by Method 9056A	44
Wet Chemistry by Method 9060A	46
Metals (ICP) by Method 6010D	48
Gl: Glossary of Terms	50
Al: Accreditations & Locations	51
Sc: Sample Chain of Custody	52

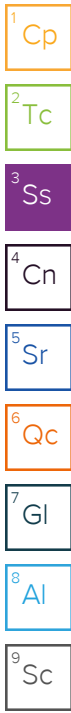


SAMPLE SUMMARY

MW-806R L1679623-01 GW

Collected by Jason R Franks
Collected date/time 11/15/23 13:20
Received date/time 11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 00:31	11/23/23 00:31	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2175523	1	11/21/23 17:47	11/21/23 19:15	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176789	1	11/27/23 12:11	11/27/23 12:11	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	2	11/20/23 10:34	11/20/23 10:34	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:56	11/19/23 12:56	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176071	1	11/22/23 09:33	11/22/23 18:04	ASH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 15:24	11/30/23 15:24	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	10	11/30/23 15:38	11/30/23 15:38	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2184013	1	12/09/23 10:11	12/09/23 10:11	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 00:31	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/29/23 00:14	JTM	Mt. Juliet, TN



MW-807 L1679623-02 GW

Collected by Jason R Franks
Collected date/time 11/16/23 13:30
Received date/time 11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 00:43	11/23/23 00:43	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176574	1	11/22/23 18:49	11/23/23 17:24	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176789	1	11/27/23 12:14	11/27/23 12:14	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	1	11/20/23 10:37	11/20/23 10:37	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:56	11/19/23 12:56	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176071	1	11/22/23 09:33	11/22/23 19:08	ASH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 15:52	11/30/23 15:52	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2184013	1	12/09/23 10:28	12/09/23 10:28	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 00:43	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/29/23 00:17	JTM	Mt. Juliet, TN

MW-808 L1679623-03 GW

Collected by Jason R Franks
Collected date/time 11/16/23 14:10
Received date/time 11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 00:46	11/23/23 00:46	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176585	1	11/22/23 19:05	11/23/23 09:13	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176789	1	11/27/23 12:19	11/27/23 12:19	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	1	11/20/23 10:38	11/20/23 10:38	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:57	11/19/23 12:57	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176071	1	11/22/23 09:33	11/22/23 19:42	ASH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 16:47	11/30/23 16:47	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2184013	1	12/09/23 10:45	12/09/23 10:45	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 00:46	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/29/23 00:19	JTM	Mt. Juliet, TN

MW-809 L1679623-04 GW

Collected by Jason R Franks
Collected date/time 11/16/23 11:25
Received date/time 11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 00:49	11/23/23 00:49	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176585	1	11/22/23 19:05	11/23/23 09:13	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176789	1	11/27/23 12:23	11/27/23 12:23	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	10	11/20/23 10:54	11/20/23 10:54	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:57	11/19/23 12:57	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176071	1	11/22/23 09:33	11/22/23 20:04	ASH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 17:01	11/30/23 17:01	GEB	Mt. Juliet, TN

SAMPLE SUMMARY

MW-809 L1679623-04 GW

Collected by
Jason R Franks

Collected date/time
11/16/23 11:25

Received date/time
11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9060A	WG2184013	1	12/09/23 11:04	12/09/23 11:04	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 00:49	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/28/23 23:36	JTM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

MW-810 L1679623-05 GW

Collected by
Jason R Franks

Collected date/time
11/16/23 12:35

Received date/time
11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 00:52	11/23/23 00:52	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176574	1	11/22/23 18:49	11/23/23 17:24	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176789	1	11/27/23 12:27	11/27/23 12:27	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	10	11/20/23 10:54	11/20/23 10:54	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:57	11/19/23 12:57	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176071	1	11/22/23 09:33	11/22/23 20:21	ASH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 17:14	11/30/23 17:14	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2185103	1	12/08/23 12:54	12/08/23 12:54	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 00:52	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/29/23 00:22	JTM	Mt. Juliet, TN

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-811 L1679623-06 GW

Collected by
Jason R Franks

Collected date/time
11/16/23 13:55

Received date/time
11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 01:00	11/23/23 01:00	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176585	1	11/22/23 19:05	11/23/23 09:13	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176789	1	11/27/23 12:31	11/27/23 12:31	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	5	11/20/23 11:01	11/20/23 11:01	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:57	11/19/23 12:57	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176071	1	11/22/23 09:33	11/22/23 21:19	ASH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 17:55	11/30/23 17:55	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2185103	1	12/08/23 13:57	12/08/23 13:57	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 01:00	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/29/23 00:25	JTM	Mt. Juliet, TN

MW-812 L1679623-07 GW

Collected by
Jason R Franks

Collected date/time
11/16/23 14:40

Received date/time
11/17/23 09:00

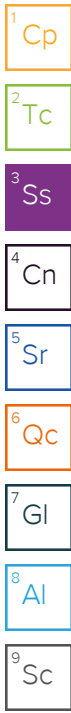
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 01:03	11/23/23 01:03	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176574	1	11/22/23 18:49	11/23/23 17:24	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176470	1	11/23/23 11:02	11/23/23 11:02	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	25	11/20/23 11:04	11/20/23 11:04	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:58	11/19/23 12:58	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176071	1	11/22/23 09:33	11/22/23 22:26	ASH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 18:09	11/30/23 18:09	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	5	11/30/23 18:23	11/30/23 18:23	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2185103	1	12/08/23 14:36	12/08/23 14:36	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 01:03	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/29/23 00:27	JTM	Mt. Juliet, TN

SAMPLE SUMMARY

MW-813 L1679623-08 GW

Collected by Jason R Franks
 Collected date/time 11/16/23 15:50
 Received date/time 11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 01:06	11/23/23 01:06	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176585	1	11/22/23 19:05	11/23/23 09:13	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176470	1	11/23/23 10:56	11/23/23 10:56	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	5	11/20/23 11:05	11/20/23 11:05	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:58	11/19/23 12:58	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176071	1	11/22/23 09:33	11/22/23 23:06	ASH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 18:37	11/30/23 18:37	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2185103	1	12/08/23 14:55	12/08/23 14:55	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 01:06	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/28/23 23:12	JTM	Mt. Juliet, TN



MW-815 L1679623-09 GW

Collected by Jason R Franks
 Collected date/time 11/16/23 14:55
 Received date/time 11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 01:09	11/23/23 01:09	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176590	1	11/22/23 19:28	11/23/23 00:23	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176789	1	11/27/23 12:36	11/27/23 12:36	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	1	11/20/23 11:06	11/20/23 11:06	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:58	11/19/23 12:58	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176071	1	11/22/23 09:33	11/22/23 23:25	ASH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 18:50	11/30/23 18:50	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2185103	1	12/08/23 15:12	12/08/23 15:12	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 01:09	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/28/23 23:14	JTM	Mt. Juliet, TN

MW-816 L1679623-10 GW

Collected by Jason R Franks
 Collected date/time 11/16/23 11:05
 Received date/time 11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 01:12	11/23/23 01:12	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176638	1	11/23/23 11:01	11/23/23 13:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176789	1	11/27/23 12:40	11/27/23 12:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	5	11/20/23 11:06	11/20/23 11:06	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:58	11/19/23 12:58	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176071	1	11/22/23 09:33	11/22/23 23:42	ASH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 19:04	11/30/23 19:04	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2185103	1	12/08/23 16:43	12/08/23 16:43	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 01:12	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/28/23 23:17	JTM	Mt. Juliet, TN

MW-819 L1679623-11 GW

Collected by Jason R Franks
 Collected date/time 11/16/23 16:25
 Received date/time 11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 01:15	11/23/23 01:15	DJS	Mt. Juliet, TN
Calculated Results	WG2174858	1	11/23/23 13:56	11/23/23 13:56	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176590	1	11/22/23 19:28	11/23/23 00:23	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176470	1	11/23/23 11:28	11/23/23 11:28	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	1	11/20/23 11:06	11/20/23 11:06	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2174200	1	11/19/23 12:59	11/19/23 12:59	CAH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176081	1	11/22/23 11:10	11/22/23 12:56	DMA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	100	11/30/23 19:18	11/30/23 19:18	GEB	Mt. Juliet, TN

SAMPLE SUMMARY

MW-819 L1679623-11 GW

Collected by Jason R Franks
 Collected date/time 11/16/23 16:25
 Received date/time 11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9060A	WG2185103	1	12/08/23 17:05	12/08/23 17:05	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 01:15	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	5	11/22/23 11:27	11/23/23 13:56	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/28/23 23:20	JTM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

MW-822 L1679623-12 GW

Collected by Jason R Franks
 Collected date/time 11/16/23 11:05
 Received date/time 11/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2174858	1	11/23/23 01:18	11/23/23 01:18	DJS	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2176590	1	11/22/23 19:28	11/23/23 00:23	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2176789	1	11/27/23 12:44	11/27/23 12:44	BJM	Mt. Juliet, TN
Wet Chemistry by Method 3500Fe B-2011	WG2174463	1	11/20/23 11:09	11/20/23 11:09	SJA	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2175189	1	11/21/23 16:20	11/21/23 16:20	SJA	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2176081	1	11/22/23 11:10	11/22/23 13:22	DMA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178444	1	11/30/23 19:32	11/30/23 19:32	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2185103	1	12/08/23 17:24	12/08/23 17:24	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174858	1	11/22/23 11:27	11/23/23 01:18	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174917	1	11/28/23 09:02	11/28/23 23:22	JTM	Mt. Juliet, TN

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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 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.



Jeff Carr
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	ND	J	100	1	11/23/2023 00:31	WG2174858

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	517000		2500	1	11/23/2023 00:31	WG2174858

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	685000		13300	1	11/21/2023 19:15	WG2175523

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	251000		20000	1	11/27/2023 12:11	WG2176789
Alkalinity,Carbonate	ND		20000	1	11/27/2023 12:11	WG2176789

Sample Narrative:

L1679623-01 WG2176789: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	3760	T8	100	2	11/20/2023 10:34	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:56	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	1560		1000	1	11/22/2023 18:04	WG2176071

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	30000		1000	1	11/30/2023 15:24	WG2178444
Fluoride	157		150	1	11/30/2023 15:24	WG2178444
Sulfate	235000		50000	10	11/30/2023 15:38	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1510	B	1000	1	12/09/2023 10:11	WG2184013

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	171000	Q1 V	1000	1	11/23/2023 00:31	WG2174858
Calcium,Dissolved	158000		1000	1	11/29/2023 00:14	WG2174917
Iron	3790	Q1	100	1	11/23/2023 00:31	WG2174858
Iron,Dissolved	ND		100	1	11/29/2023 00:14	WG2174917
Magnesium	22200	Q1	1000	1	11/23/2023 00:31	WG2174858
Magnesium,Dissolved	21800		1000	1	11/29/2023 00:14	WG2174917
Manganese	1960	Q1	10.0	1	11/23/2023 00:31	WG2174858
Manganese,Dissolved	1910		10.0	1	11/29/2023 00:14	WG2174917
Molybdenum,Dissolved	1620		5.00	1	11/29/2023 00:14	WG2174917
Potassium	8220	J3 J6	2000	1	11/23/2023 00:31	WG2174858
Potassium,Dissolved	3440		2000	1	11/29/2023 00:14	WG2174917
Sodium	24800		3000	1	11/23/2023 00:31	WG2174858
Sodium,Dissolved	22400		3000	1	11/29/2023 00:14	WG2174917

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	374		50.0	1	11/23/2023 00:43	WG2174858

1 Cp

2 Tc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	294000		2500	1	11/23/2023 00:43	WG2174858

3 Ss

4 Cn

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	334000		10000	1	11/23/2023 17:24	WG2176574

5 Sr

6 Qc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	260000		20000	1	11/27/2023 12:14	WG2176789
Alkalinity,Carbonate	ND		20000	1	11/27/2023 12:14	WG2176789

7 Gl

8 Al

9 Sc

Sample Narrative:

L1679623-02 WG2176789: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	91.0	T8	50.0	1	11/20/2023 10:37	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:56	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	1740		1000	1	11/22/2023 19:08	WG2176071

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	12600		1000	1	11/30/2023 15:52	WG2178444
Fluoride	186		150	1	11/30/2023 15:52	WG2178444
Sulfate	32200	J6	5000	1	11/30/2023 15:52	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	ND		1000	1	12/09/2023 10:28	WG2184013

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	93000		1000	1	11/23/2023 00:43	WG2174858
Calcium,Dissolved	84400		1000	1	11/29/2023 00:17	WG2174917
Iron	465		100	1	11/23/2023 00:43	WG2174858
Iron,Dissolved	ND		100	1	11/29/2023 00:17	WG2174917
Magnesium	14900		1000	1	11/23/2023 00:43	WG2174858
Magnesium,Dissolved	14600		1000	1	11/29/2023 00:17	WG2174917
Manganese	433		10.0	1	11/23/2023 00:43	WG2174858
Manganese,Dissolved	203		10.0	1	11/29/2023 00:17	WG2174917
Molybdenum	ND		5.00	1	11/23/2023 00:43	WG2174858
Molybdenum,Dissolved	6.05		5.00	1	11/29/2023 00:17	WG2174917
Potassium	9840		2000	1	11/23/2023 00:43	WG2174858
Potassium,Dissolved	ND		2000	1	11/29/2023 00:17	WG2174917
Sodium	12100	<u>B</u>	3000	1	11/23/2023 00:43	WG2174858
Sodium,Dissolved	10500		3000	1	11/29/2023 00:17	WG2174917

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	533		50.0	1	11/23/2023 00:46	WG2174858

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	418000		2500	1	11/23/2023 00:46	WG2174858

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	440000		10000	1	11/23/2023 09:13	WG2176585

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	236000		20000	1	11/27/2023 12:19	WG2176789
Alkalinity,Carbonate	ND		20000	1	11/27/2023 12:19	WG2176789

Sample Narrative:

L1679623-03 WG2176789: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	ND	<u>T8</u>	50.0	1	11/20/2023 10:38	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:57	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	2350		1000	1	11/22/2023 19:42	WG2176071

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	38300		1000	1	11/30/2023 16:47	WG2178444
Fluoride	ND		150	1	11/30/2023 16:47	WG2178444
Sulfate	94100		5000	1	11/30/2023 16:47	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1480	<u>B</u>	1000	1	12/09/2023 10:45	WG2184013

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	141000		1000	1	11/23/2023 00:46	WG2174858
Calcium,Dissolved	114000		1000	1	11/29/2023 00:19	WG2174917
Iron	533		100	1	11/23/2023 00:46	WG2174858
Iron,Dissolved	ND		100	1	11/29/2023 00:19	WG2174917
Magnesium	15900		1000	1	11/23/2023 00:46	WG2174858
Magnesium,Dissolved	15700		1000	1	11/29/2023 00:19	WG2174917
Manganese	426		10.0	1	11/23/2023 00:46	WG2174858
Manganese,Dissolved	77.0		10.0	1	11/29/2023 00:19	WG2174917
Molybdenum	ND		5.00	1	11/23/2023 00:46	WG2174858
Molybdenum,Dissolved	ND		5.00	1	11/29/2023 00:19	WG2174917
Potassium	6650		2000	1	11/23/2023 00:46	WG2174858
Potassium,Dissolved	ND		2000	1	11/29/2023 00:19	WG2174917
Sodium	14600		3000	1	11/23/2023 00:46	WG2174858
Sodium,Dissolved	13300		3000	1	11/29/2023 00:19	WG2174917

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	3390		100	1	11/23/2023 00:49	WG2174858

1 Cp

2 Tc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	515000		2500	1	11/23/2023 00:49	WG2174858

3 Ss

4 Cn

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	490000		10000	1	11/23/2023 09:13	WG2176585

5 Sr

6 Qc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	343000		20000	1	11/27/2023 12:23	WG2176789
Alkalinity,Carbonate	ND		20000	1	11/27/2023 12:23	WG2176789

7 Gl

8 Al

9 Sc

Sample Narrative:

L1679623-04 WG2176789: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	12700	T8	500	10	11/20/2023 10:54	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:57	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	3880		1000	1	11/22/2023 20:04	WG2176071

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	29600		1000	1	11/30/2023 17:01	WG2178444
Fluoride	906		150	1	11/30/2023 17:01	WG2178444
Sulfate	66400		5000	1	11/30/2023 17:01	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3550		1000	1	12/09/2023 11:04	WG2184013

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	166000		1000	1	11/23/2023 00:49	WG2174858
Calcium,Dissolved	123000	<u>V</u>	1000	1	11/28/2023 23:36	WG2174917
Iron	16100		100	1	11/23/2023 00:49	WG2174858
Iron,Dissolved	ND		100	1	11/28/2023 23:36	WG2174917
Magnesium	24100		1000	1	11/23/2023 00:49	WG2174858
Magnesium,Dissolved	17500		1000	1	11/28/2023 23:36	WG2174917
Manganese	4800		10.0	1	11/23/2023 00:49	WG2174858
Manganese,Dissolved	4020		10.0	1	11/28/2023 23:36	WG2174917
Molybdenum	296		5.00	1	11/23/2023 00:49	WG2174858
Molybdenum,Dissolved	487		5.00	1	11/28/2023 23:36	WG2174917
Potassium	5420		2000	1	11/23/2023 00:49	WG2174858
Potassium,Dissolved	4680		2000	1	11/28/2023 23:36	WG2174917
Sodium	26200		3000	1	11/23/2023 00:49	WG2174858
Sodium,Dissolved	25900	<u>J6</u>	3000	1	11/28/2023 23:36	WG2174917

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	ND		100	1	11/23/2023 00:52	WG2174858

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	391000		2500	1	11/23/2023 00:52	WG2174858

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	503000		10000	1	11/23/2023 17:24	WG2176574

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	301000		20000	1	11/27/2023 12:27	WG2176789
Alkalinity,Carbonate	ND		20000	1	11/27/2023 12:27	WG2176789

Sample Narrative:

L1679623-05 WG2176789: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	7760	<u>T8</u>	500	10	11/20/2023 10:54	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:57	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	2090		1000	1	11/22/2023 20:21	WG2176071

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	17800		1000	1	11/30/2023 17:14	WG2178444
Fluoride	ND		150	1	11/30/2023 17:14	WG2178444
Sulfate	107000		5000	1	11/30/2023 17:14	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	2060		1000	1	12/08/2023 12:54	WG2185103

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	126000		1000	1	11/23/2023 00:52	WG2174858
Calcium,Dissolved	119000		1000	1	11/29/2023 00:22	WG2174917
Iron	7530		100	1	11/23/2023 00:52	WG2174858
Iron,Dissolved	ND		100	1	11/29/2023 00:22	WG2174917
Magnesium	18400		1000	1	11/23/2023 00:52	WG2174858
Magnesium,Dissolved	18300		1000	1	11/29/2023 00:22	WG2174917
Manganese	563		10.0	1	11/23/2023 00:52	WG2174858
Manganese,Dissolved	504		10.0	1	11/29/2023 00:22	WG2174917
Molybdenum	62.0		5.00	1	11/23/2023 00:52	WG2174858
Molybdenum,Dissolved	61.0		5.00	1	11/29/2023 00:22	WG2174917
Potassium	7300		2000	1	11/23/2023 00:52	WG2174858
Potassium,Dissolved	2780		2000	1	11/29/2023 00:22	WG2174917
Sodium	21300		3000	1	11/23/2023 00:52	WG2174858
Sodium,Dissolved	21200		3000	1	11/29/2023 00:22	WG2174917

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	ND		100	1	11/23/2023 01:00	WG2174858

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	431000		2500	1	11/23/2023 01:00	WG2174858

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	518000		10000	1	11/23/2023 09:13	WG2176585

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	255000		20000	1	11/27/2023 12:31	WG2176789
Alkalinity,Carbonate	ND		20000	1	11/27/2023 12:31	WG2176789

Sample Narrative:

L1679623-06 WG2176789: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	8600	<u>T8</u>	250	5	11/20/2023 11:01	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:57	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	1120	<u>B</u>	1000	1	11/22/2023 21:19	WG2176071

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	22700		1000	1	11/30/2023 17:55	WG2178444
Fluoride	193		150	1	11/30/2023 17:55	WG2178444
Sulfate	162000		5000	1	11/30/2023 17:55	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1060	<u>B</u>	1000	1	12/08/2023 13:57	WG2185103

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	142000		1000	1	11/23/2023 01:00	WG2174858
Calcium,Dissolved	132000		1000	1	11/29/2023 00:25	WG2174917
Iron	6600		100	1	11/23/2023 01:00	WG2174858
Iron,Dissolved	ND		100	1	11/29/2023 00:25	WG2174917
Magnesium	18600		1000	1	11/23/2023 01:00	WG2174858
Magnesium,Dissolved	18600		1000	1	11/29/2023 00:25	WG2174917
Manganese	999		10.0	1	11/23/2023 01:00	WG2174858
Manganese,Dissolved	918		10.0	1	11/29/2023 00:25	WG2174917
Molybdenum	22.6		5.00	1	11/23/2023 01:00	WG2174858
Molybdenum,Dissolved	23.8		5.00	1	11/29/2023 00:25	WG2174917
Potassium	2960	B	2000	1	11/23/2023 01:00	WG2174858
Potassium,Dissolved	3040		2000	1	11/29/2023 00:25	WG2174917
Sodium	11900	B	3000	1	11/23/2023 01:00	WG2174858
Sodium,Dissolved	11300		3000	1	11/29/2023 00:25	WG2174917

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	6880		100	1	11/23/2023 01:03	WG2174858

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	867000		2500	1	11/23/2023 01:03	WG2174858

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1130000		20000	1	11/23/2023 17:24	WG2176574

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	403000		20000	1	11/23/2023 11:02	WG2176470
Alkalinity,Carbonate	ND		20000	1	11/23/2023 11:02	WG2176470

Sample Narrative:

L1679623-07 WG2176470: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	38200	<u>T8</u>	1250	25	11/20/2023 11:04	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:58	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	5030		1000	1	11/22/2023 22:26	WG2176071

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	26400		1000	1	11/30/2023 18:09	WG2178444
Fluoride	151		150	1	11/30/2023 18:09	WG2178444
Sulfate	474000		25000	5	11/30/2023 18:23	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	4170		1000	1	12/08/2023 14:36	WG2185103

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	245000		1000	1	11/23/2023 01:03	WG2174858
Calcium,Dissolved	216000		1000	1	11/29/2023 00:27	WG2174917
Iron	45100		100	1	11/23/2023 01:03	WG2174858
Iron,Dissolved	ND		100	1	11/29/2023 00:27	WG2174917
Magnesium	62100		1000	1	11/23/2023 01:03	WG2174858
Magnesium,Dissolved	58400		1000	1	11/29/2023 00:27	WG2174917
Manganese	3170		10.0	1	11/23/2023 01:03	WG2174858
Manganese,Dissolved	2660		10.0	1	11/29/2023 00:27	WG2174917
Molybdenum	ND		5.00	1	11/23/2023 01:03	WG2174858
Molybdenum,Dissolved	ND		5.00	1	11/29/2023 00:27	WG2174917
Potassium	7610		2000	1	11/23/2023 01:03	WG2174858
Potassium,Dissolved	7730		2000	1	11/29/2023 00:27	WG2174917
Sodium	44200		3000	1	11/23/2023 01:03	WG2174858
Sodium,Dissolved	43000		3000	1	11/29/2023 00:27	WG2174917

1
Cp

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Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	826		100	1	11/23/2023 01:06	WG2174858

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	399000		2500	1	11/23/2023 01:06	WG2174858

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	495000		10000	1	11/23/2023 09:13	WG2176585

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	311000		20000	1	11/23/2023 10:56	WG2176470
Alkalinity,Carbonate	ND		20000	1	11/23/2023 10:56	WG2176470

Sample Narrative:

L1679623-08 WG2176470: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	7120	<u>T8</u>	250	5	11/20/2023 11:05	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:58	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	2110		1000	1	11/22/2023 23:06	WG2176071

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	32600		1000	1	11/30/2023 18:37	WG2178444
Fluoride	ND		150	1	11/30/2023 18:37	WG2178444
Sulfate	93300		5000	1	11/30/2023 18:37	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1120	<u>B</u>	1000	1	12/08/2023 14:55	WG2185103

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	133000		1000	1	11/23/2023 01:06	WG2174858
Calcium,Dissolved	118000		1000	1	11/28/2023 23:12	WG2174917
Iron	7950		100	1	11/23/2023 01:06	WG2174858
Iron,Dissolved	ND		100	1	11/28/2023 23:12	WG2174917
Magnesium	16200		1000	1	11/23/2023 01:06	WG2174858
Magnesium,Dissolved	14800		1000	1	11/28/2023 23:12	WG2174917
Manganese	265		10.0	1	11/23/2023 01:06	WG2174858
Manganese,Dissolved	177		10.0	1	11/28/2023 23:12	WG2174917
Molybdenum	ND		5.00	1	11/23/2023 01:06	WG2174858
Molybdenum,Dissolved	8.03		5.00	1	11/28/2023 23:12	WG2174917
Potassium	2890	<u>B</u>	2000	1	11/23/2023 01:06	WG2174858
Potassium,Dissolved	2590		2000	1	11/28/2023 23:12	WG2174917
Sodium	24700		3000	1	11/23/2023 01:06	WG2174858
Sodium,Dissolved	23900		3000	1	11/28/2023 23:12	WG2174917

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	80.7		50.0	1	11/23/2023 01:09	WG2174858

1 Cp

2 Tc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	253000		2500	1	11/23/2023 01:09	WG2174858

3 Ss

4 Cn

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	321000		10000	1	11/23/2023 00:23	WG2176590

5 Sr

6 Qc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	193000		20000	1	11/27/2023 12:36	WG2176789
Alkalinity,Carbonate	ND		20000	1	11/27/2023 12:36	WG2176789

7 Gl

8 Al

9 Sc

Sample Narrative:

L1679623-09 WG2176789: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	ND	T8	50.0	1	11/20/2023 11:06	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:58	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	2700		1000	1	11/22/2023 23:25	WG2176071

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	10700		1000	1	11/30/2023 18:50	WG2178444
Fluoride	171		150	1	11/30/2023 18:50	WG2178444
Sulfate	44000		5000	1	11/30/2023 18:50	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	ND		1000	1	12/08/2023 15:12	WG2185103

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	79900		1000	1	11/23/2023 01:09	WG2174858
Calcium,Dissolved	75000		1000	1	11/28/2023 23:14	WG2174917
Iron	ND		100	1	11/23/2023 01:09	WG2174858
Iron,Dissolved	ND		100	1	11/28/2023 23:14	WG2174917
Magnesium	13000		1000	1	11/23/2023 01:09	WG2174858
Magnesium,Dissolved	12600		1000	1	11/28/2023 23:14	WG2174917
Manganese	52.2		10.0	1	11/23/2023 01:09	WG2174858
Manganese,Dissolved	ND		10.0	1	11/28/2023 23:14	WG2174917
Molybdenum	ND		5.00	1	11/23/2023 01:09	WG2174858
Molybdenum,Dissolved	ND		5.00	1	11/28/2023 23:14	WG2174917
Potassium	ND		2000	1	11/23/2023 01:09	WG2174858
Potassium,Dissolved	ND		2000	1	11/28/2023 23:14	WG2174917
Sodium	9370	B	3000	1	11/23/2023 01:09	WG2174858
Sodium,Dissolved	8700		3000	1	11/28/2023 23:14	WG2174917

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	ND		100	1	11/23/2023 01:12	WG2174858

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	298000		2500	1	11/23/2023 01:12	WG2174858

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	349000		10000	1	11/23/2023 13:36	WG2176638

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	263000		20000	1	11/27/2023 12:40	WG2176789
Alkalinity,Carbonate	ND		20000	1	11/27/2023 12:40	WG2176789

Sample Narrative:

L1679623-10 WG2176789: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	10100	<u>T8</u>	250	5	11/20/2023 11:06	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:58	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	3240		1000	1	11/22/2023 23:42	WG2176071

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	12900		1000	1	11/30/2023 19:04	WG2178444
Fluoride	377		150	1	11/30/2023 19:04	WG2178444
Sulfate	38200		5000	1	11/30/2023 19:04	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	2500		1000	1	12/08/2023 16:43	WG2185103

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	92300		1000	1	11/23/2023 01:12	WG2174858
Calcium,Dissolved	85200		1000	1	11/28/2023 23:17	WG2174917
Iron	9060		100	1	11/23/2023 01:12	WG2174858
Iron,Dissolved	ND		100	1	11/28/2023 23:17	WG2174917
Magnesium	16400		1000	1	11/23/2023 01:12	WG2174858
Magnesium,Dissolved	15700		1000	1	11/28/2023 23:17	WG2174917
Manganese	2460		10.0	1	11/23/2023 01:12	WG2174858
Manganese,Dissolved	2140		10.0	1	11/28/2023 23:17	WG2174917
Molybdenum	ND		5.00	1	11/23/2023 01:12	WG2174858
Molybdenum,Dissolved	5.45		5.00	1	11/28/2023 23:17	WG2174917
Potassium	2510	B	2000	1	11/23/2023 01:12	WG2174858
Potassium,Dissolved	2190		2000	1	11/28/2023 23:17	WG2174917
Sodium	11300	B	3000	1	11/23/2023 01:12	WG2174858
Sodium,Dissolved	10600		3000	1	11/28/2023 23:17	WG2174917

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	435		50.0	1	11/23/2023 01:15	WG2174858

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	2580000		12500	1	11/23/2023 13:56	WG2174858

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	569000		10000	1	11/23/2023 00:23	WG2176590

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	1690000		20000	1	11/23/2023 11:28	WG2176470
Alkalinity,Carbonate	ND		20000	1	11/23/2023 11:28	WG2176470

Sample Narrative:

L1679623-11 WG2176470: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	1950	<u>T8</u>	50.0	1	11/20/2023 11:06	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/19/2023 12:59	WG2174200

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	1900		1000	1	11/22/2023 12:56	WG2176081

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	ND		100000	100	11/30/2023 19:18	WG2178444
Fluoride	ND		15000	100	11/30/2023 19:18	WG2178444
Sulfate	ND		500000	100	11/30/2023 19:18	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	42600		1000	1	12/08/2023 17:05	WG2185103

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	975000		5000	5	11/23/2023 13:56	WG2174858
Calcium,Dissolved	148000		1000	1	11/28/2023 23:20	WG2174917
Iron	2390		100	1	11/23/2023 01:15	WG2174858
Iron,Dissolved	ND		100	1	11/28/2023 23:20	WG2174917
Magnesium	35600		5000	5	11/23/2023 13:56	WG2174858
Magnesium,Dissolved	27500		1000	1	11/28/2023 23:20	WG2174917
Manganese	5000		10.0	1	11/23/2023 01:15	WG2174858
Manganese,Dissolved	ND		10.0	1	11/28/2023 23:20	WG2174917
Molybdenum	ND		5.00	1	11/23/2023 01:15	WG2174858
Molybdenum,Dissolved	ND		5.00	1	11/28/2023 23:20	WG2174917
Potassium	2620	B	2000	1	11/23/2023 01:15	WG2174858
Potassium,Dissolved	ND		2000	1	11/28/2023 23:20	WG2174917
Sodium	12000	B	3000	1	11/23/2023 01:15	WG2174858
Sodium,Dissolved	10800		3000	1	11/28/2023 23:20	WG2174917

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferric Iron	253		50.0	1	11/23/2023 01:18	WG2174858

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

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	302000		2500	1	11/23/2023 01:18	WG2174858

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	372000		10000	1	11/23/2023 00:23	WG2176590

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	230000		20000	1	11/27/2023 12:44	WG2176789
Alkalinity,Carbonate	ND		20000	1	11/27/2023 12:44	WG2176789

Sample Narrative:

L1679623-12 WG2176789: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	ND	T8	50.0	1	11/20/2023 11:09	WG2174463

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	11/21/2023 16:20	WG2175189

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
DOC	2340		1000	1	11/22/2023 13:22	WG2176081

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	12500		1000	1	11/30/2023 19:32	WG2178444
Fluoride	276		150	1	11/30/2023 19:32	WG2178444
Sulfate	60000		5000	1	11/30/2023 19:32	WG2178444

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	ND		1000	1	12/08/2023 17:24	WG2185103

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	103000		1000	1	11/23/2023 01:18	WG2174858
Calcium,Dissolved	87000		1000	1	11/28/2023 23:22	WG2174917
Iron	253		100	1	11/23/2023 01:18	WG2174858
Iron,Dissolved	ND		100	1	11/28/2023 23:22	WG2174917
Magnesium	11000		1000	1	11/23/2023 01:18	WG2174858
Magnesium,Dissolved	10900		1000	1	11/28/2023 23:22	WG2174917
Manganese	813		10.0	1	11/23/2023 01:18	WG2174858
Manganese,Dissolved	ND		10.0	1	11/28/2023 23:22	WG2174917
Molybdenum	ND		5.00	1	11/23/2023 01:18	WG2174858
Molybdenum,Dissolved	6.51		5.00	1	11/28/2023 23:22	WG2174917
Potassium	ND		2000	1	11/23/2023 01:18	WG2174858
Potassium,Dissolved	ND		2000	1	11/28/2023 23:22	WG2174917
Sodium	9880	B	3000	1	11/23/2023 01:18	WG2174858
Sodium,Dissolved	9280		3000	1	11/28/2023 23:22	WG2174917

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4004038-1 11/21/23 19:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

1 Cp

2 Tc

3 Ss

L1678834-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1678834-01 11/21/23 19:15 • (DUP) R4004038-3 11/21/23 19:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	249000	245000	1	1.62		5

4 Cn

5 Sr

L1678919-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1678919-03 11/21/23 19:15 • (DUP) R4004038-4 11/21/23 19:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1330000	1350000	1	0.934		5

6 Qc

7 Gl

8 Al

Laboratory Control Sample (LCS)

(LCS) R4004038-2 11/21/23 19:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8170000	92.8	85.0-115	

9 Sc

Method Blank (MB)

(MB) R4004328-1 11/23/23 17:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1679623-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-05 11/23/23 17:24 • (DUP) R4004328-3 11/23/23 17:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	503000	515000	1	2.36		5

L1679623-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-07 11/23/23 17:24 • (DUP) R4004328-4 11/23/23 17:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1130000	1150000	1	1.76		5

Laboratory Control Sample (LCS)

(LCS) R4004328-2 11/23/23 17:24

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	9600000	109	85.0-115	

Method Blank (MB)

(MB) R4004322-1 11/23/23 09:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

1 Cp

2 Tc

3 Ss

L1679410-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1679410-01 11/23/23 09:13 • (DUP) R4004322-3 11/23/23 09:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	972000	1050000	1	7.33	J3	5

4 Cn

5 Sr

6 Qc

L1679410-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1679410-02 11/23/23 09:13 • (DUP) R4004322-4 11/23/23 09:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	512000	519000	1	1.36		5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R4004322-2 11/23/23 09:13

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8920000	101	85.0-115	

Method Blank (MB)

(MB) R4004323-1 11/23/23 00:23

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

1 Cp

2 Tc

3 Ss

L1679410-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1679410-05 11/23/23 00:23 • (DUP) R4004323-3 11/23/23 00:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	418000	436000	1	4.22		5

4 Cn

5 Sr

L1679713-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1679713-06 11/23/23 00:23 • (DUP) R4004323-4 11/23/23 00:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1460000	1620000	1	10.7	J3	5

6 Qc

7 Gl

8 Al

Laboratory Control Sample (LCS)

(LCS) R4004323-2 11/23/23 00:23

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8070000	91.7	85.0-115	

9 Sc

Method Blank (MB)

(MB) R4005386-1 11/23/23 13:36

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10000	10000

¹Cp

²Tc

³Ss

L1679023-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1679023-04 11/23/23 13:36 • (DUP) R4005386-3 11/23/23 13:36

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	310000	316000	1	1.92		5

⁴Cn

⁵Sr

L1679063-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1679063-01 11/23/23 13:36 • (DUP) R4005386-4 11/23/23 13:36

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	564000	549000	1	2.64		5

⁶Qc

⁷Gl

⁸Al

Laboratory Control Sample (LCS)

(LCS) R4005386-2 11/23/23 13:36

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	9680000	110	85.0-115	

⁹Sc

Method Blank (MB)

(MB) R4003792-2 11/23/23 09:02

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		8450	20000
Alkalinity,Carbonate	U		8450	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1677421-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1677421-03 11/23/23 09:12 • (DUP) R4003792-3 11/23/23 09:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	ND	ND	1	0.000		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1679658-01 Original Sample (OS) • Duplicate (DUP)

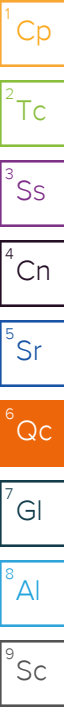
(OS) L1679658-01 11/23/23 11:16 • (DUP) R4003792-4 11/23/23 11:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	315000	316000	1	0.244		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5



Method Blank (MB)

(MB) R4004643-2 11/27/23 11:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		8450	20000
Alkalinity,Carbonate	U		8450	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1679665-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1679665-01 11/27/23 13:11 • (DUP) R4004643-4 11/27/23 13:15

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	453000	454000	1	0.183		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4002163-1 11/20/23 10:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ferrous Iron	U		15.0	50.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1679623-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-06 11/20/23 11:01 • (DUP) R4002163-5 11/20/23 11:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ferrous Iron	8600	7510	5	13.5		20

L1679623-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-11 11/20/23 11:06 • (DUP) R4002163-6 11/20/23 11:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ferrous Iron	1950	1960	1	0.358		20

Laboratory Control Sample (LCS)

(LCS) R4002163-2 11/20/23 10:32

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Ferrous Iron	1000	949	94.9	85.0-115	

L1679623-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679623-02 11/20/23 10:37 • (MS) R4002163-3 11/20/23 10:38 • (MSD) R4002163-4 11/20/23 10:38

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Ferrous Iron	1000	91.0	1230	1230	114	114	1	80.0-120			0.163	20

Method Blank (MB)

(MB) R4001931-1 11/19/23 12:52

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfide	U		6.50	50.0

1 Cp

2 Tc

3 Ss

L1679623-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-11 11/19/23 12:59 • (DUP) R4001931-5 11/19/23 12:59

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfide	ND	ND	1	0.000		20

4 Cn

5 Sr

Laboratory Control Sample (LCS)

(LCS) R4001931-2 11/19/23 12:52

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Sulfide	500	517	103	85.0-115	

6 Qc

7 Gl

8 Al

L1679623-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679623-02 11/19/23 12:56 • (MS) R4001931-3 11/19/23 12:57 • (MSD) R4001931-4 11/19/23 12:57

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfide	500	ND	495	504	99.0	101	1	80.0-120			1.80	20

9 Sc

Method Blank (MB)

(MB) R4003010-1 11/21/23 16:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfide	U		6.50	50.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1679759-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1679759-03 11/21/23 16:22 • (DUP) R4003010-5 11/21/23 16:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfide	113	105	1	7.34		20

L1680167-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1680167-02 11/21/23 16:24 • (DUP) R4003010-6 11/21/23 16:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfide	712000	723000	1000	1.45		20

Laboratory Control Sample (LCS)

(LCS) R4003010-2 11/21/23 16:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Sulfide	500	489	97.8	85.0-115	

L1679623-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679623-12 11/21/23 16:20 • (MS) R4003010-3 11/21/23 16:21 • (MSD) R4003010-4 11/21/23 16:21

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfide	500	ND	440	454	88.0	90.8	1	80.0-120			3.13	20

Method Blank (MB)

(MB) R4003712-2 11/22/23 13:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
DOC	118	↓	106	1000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1679623-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-02 11/22/23 19:08 • (DUP) R4003712-5 11/22/23 19:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
DOC	1740	1690	1	3.09		20

L1679623-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-07 11/22/23 22:26 • (DUP) R4003712-8 11/22/23 22:47

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
DOC	5030	5590	1	10.6		20

Laboratory Control Sample (LCS)

(LCS) R4003712-1 11/22/23 13:24

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
DOC	25000	23200	92.6	85.0-115	

L1679623-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679623-01 11/22/23 18:04 • (MS) R4003712-3 11/22/23 18:28 • (MSD) R4003712-4 11/22/23 18:51

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
DOC	25000	1560	25400	25200	95.1	94.5	1	80.0-120			0.633	20

L1679623-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679623-06 11/22/23 21:19 • (MS) R4003712-6 11/22/23 21:43 • (MSD) R4003712-7 11/22/23 22:06

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
DOC	25000	1120	24800	25100	94.5	95.7	1	80.0-120			1.20	20

Method Blank (MB)

(MB) R4003602-2 11/22/23 11:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
DOC	U		106	1000

1 Cp

2 Tc

3 Ss

L1679623-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-11 11/22/23 12:56 • (DUP) R4003602-3 11/22/23 13:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
DOC	1900	2230	1	16.1		20

4 Cn

5 Sr

Laboratory Control Sample (LCS)

(LCS) R4003602-1 11/22/23 11:44

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
DOC	25000	24700	98.8	85.0-115	

6 Qc

7 Gl

8 Al

L1679623-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679623-12 11/22/23 13:22 • (MS) R4003602-4 11/22/23 13:44 • (MSD) R4003602-5 11/22/23 14:11

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
DOC	25000	2340	26900	26900	98.3	98.2	1	80.0-120			0.0372	20

9 Sc

Method Blank (MB)

(MB) R4006862-1 11/30/23 09:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

L1679623-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-02 11/30/23 15:52 • (DUP) R4006862-3 11/30/23 16:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	12600	12100	1	3.95		15
Fluoride	186	183	1	1.79		15
Sulfate	32200	31300	1	3.07		15

L1679813-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1679813-04 11/30/23 21:08 • (DUP) R4006862-6 11/30/23 21:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	49100	49000	1	0.240		15
Fluoride	ND	ND	1	0.359		15
Sulfate	7540	7540	1	0.0915		15

Laboratory Control Sample (LCS)

(LCS) R4006862-2 11/30/23 09:40

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	39300	98.2	80.0-120	
Fluoride	8000	8010	100	80.0-120	
Sulfate	40000	39100	97.7	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1679623-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679623-02 11/30/23 15:52 • (MS) R4006862-4 11/30/23 16:19 • (MSD) R4006862-5 11/30/23 16:33

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	12600	49000	48600	91.2	90.2	1	80.0-120			0.800	15
Fluoride	8000	186	8330	8270	102	101	1	80.0-120			0.698	15
Sulfate	40000	32200	64000	63500	79.4	78.3	1	80.0-120	<u>J6</u>	<u>J6</u>	0.683	15

L1679813-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1679813-04 11/30/23 21:08 • (MS) R4006862-7 11/30/23 21:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	49100	77400	70.7	1	80.0-120	<u>J6</u>
Fluoride	8000	ND	7920	97.6	1	80.0-120	
Sulfate	40000	7540	43500	89.9	1	80.0-120	

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

Method Blank (MB)

(MB) R4010345-2 12/09/23 01:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	209	↓	102	1000

¹Cp

²Tc

³Ss

L1679273-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1679273-20 12/09/23 03:14 • (DUP) R4010345-5 12/09/23 03:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	2930	2930	1	0.0341		20

⁴Cn

⁵Sr

L1679410-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1679410-03 12/09/23 05:25 • (DUP) R4010345-6 12/09/23 05:42

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	ND	ND	1	3.51		20

⁶Qc

⁷Gl

⁸Al

Laboratory Control Sample (LCS)

(LCS) R4010345-1 12/09/23 01:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	25000	25100	100	85.0-115	

⁹Sc

L1679273-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679273-16 12/09/23 01:48 • (MS) R4010345-3 12/09/23 02:13 • (MSD) R4010345-4 12/09/23 02:37

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	3090	28600	28700	102	103	1	85.0-115			0.663	20

L1679410-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679410-04 12/09/23 05:59 • (MS) R4010345-7 12/09/23 06:22 • (MSD) R4010345-8 12/09/23 06:45

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	1100	26900	26800	103	103	1	85.0-115			0.261	20

Method Blank (MB)

(MB) R4010344-2 12/08/23 12:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	135	↓	102	1000

¹Cp

²Tc

³Ss

L1679623-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-06 12/08/23 13:57 • (DUP) R4010344-5 12/08/23 14:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1060	1080	1	1.96		20

⁴Cn

⁵Sr

L1679623-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1679623-12 12/08/23 17:24 • (DUP) R4010344-6 12/08/23 17:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	ND	ND	1	3.93		20

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4010344-1 12/08/23 11:48

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	25000	25400	101	85.0-115	

L1679623-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679623-05 12/08/23 12:54 • (MS) R4010344-3 12/08/23 13:17 • (MSD) R4010344-4 12/08/23 13:40

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	2060	26600	26700	98.1	98.7	1	85.0-115			0.563	20

L1679636-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679636-03 12/08/23 18:33 • (MS) R4010344-7 12/08/23 18:56 • (MSD) R4010344-8 12/08/23 19:20

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	ND	26400	26500	103	104	1	85.0-115			0.529	20

Method Blank (MB)

(MB) R4003727-1 11/23/23 00:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Calcium	U		79.3	1000
Iron	U		18.0	100
Magnesium	U		85.3	1000
Manganese	U		0.934	10.0
Molybdenum	U		1.16	5.00
Potassium	463	U	261	2000
Sodium	1280	U	504	3000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4003727-2 11/23/23 00:29

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Calcium	10000	10200	102	80.0-120	
Iron	10000	9760	97.6	80.0-120	
Magnesium	10000	9860	98.6	80.0-120	
Manganese	1000	980	98.0	80.0-120	
Molybdenum	1000	988	98.8	80.0-120	
Potassium	10000	9800	98.0	80.0-120	
Sodium	10000	11000	110	80.0-120	

L1679623-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679623-01 11/23/23 00:31 • (MS) R4003727-4 11/23/23 00:37 • (MSD) R4003727-5 11/23/23 00:40

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Calcium	10000	171000	177000	177000	58.9	58.5	1	75.0-125	V	V	0.0206	20
Iron	10000	3790	13300	13200	95.5	93.9	1	75.0-125			1.17	20
Magnesium	10000	22200	31100	31000	88.9	88.1	1	75.0-125			0.265	20
Manganese	1000	1960	2880	2870	92.2	90.9	1	75.0-125			0.449	20
Molybdenum	1000	1670	2630	2630	95.6	95.8	1	75.0-125			0.0810	20
Potassium	10000	8220	13000	17500	47.9	92.7	1	75.0-125	J6	J3	29.3	20
Sodium	10000	24800	33100	33500	83.5	86.8	1	75.0-125			1.01	20

Method Blank (MB)

(MB) R4005547-1 11/28/23 23:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Calcium,Dissolved	U		79.3	1000
Iron,Dissolved	U		18.0	100
Magnesium,Dissolved	U		85.3	1000
Manganese,Dissolved	U		0.934	10.0
Molybdenum,Dissolved	U		1.16	5.00
Potassium,Dissolved	U		261	2000
Sodium,Dissolved	U		504	3000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

Laboratory Control Sample (LCS)

(LCS) R4005547-2 11/28/23 23:33

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Calcium,Dissolved	10000	9490	94.9	80.0-120	
Iron,Dissolved	10000	9420	94.2	80.0-120	
Magnesium,Dissolved	10000	9730	97.3	80.0-120	
Manganese,Dissolved	1000	980	98.0	80.0-120	
Molybdenum,Dissolved	1000	946	94.6	80.0-120	
Potassium,Dissolved	10000	10000	100	80.0-120	
Sodium,Dissolved	10000	10000	100	80.0-120	

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1679623-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679623-04 11/28/23 23:36 • (MS) R4005547-4 11/28/23 23:41 • (MSD) R4005547-5 11/28/23 23:44

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Calcium,Dissolved	10000	123000	130000	130000	71.0	67.7	1	75.0-125	<u>V</u>	<u>V</u>	0.246	20
Iron,Dissolved	10000	ND	9260	9450	92.6	94.5	1	75.0-125			2.04	20
Magnesium,Dissolved	10000	17500	26300	26400	87.8	88.6	1	75.0-125			0.290	20
Manganese,Dissolved	1000	4020	4880	4880	85.5	85.2	1	75.0-125			0.0607	20
Molybdenum,Dissolved	1000	487	1440	1440	94.9	95.6	1	75.0-125			0.525	20
Potassium,Dissolved	10000	4680	14700	14800	100	101	1	75.0-125			0.358	20
Sodium,Dissolved	10000	25900	33400	33600	74.5	77.2	1	75.0-125	<u>J6</u>		0.803	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

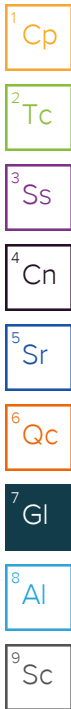
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.



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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Company Name/Address: **SCS Engineers - KS**
 8575 W. 110th Street
 Overland Park, KS 66210

Billing Information:
 Accounts Payable
 8575 W. 110th Street
 Overland Park, KS 66210

Report to: **Jason Franks**
 Email To: **jfranks@scsengineers.com; rockhold@scsengine**

Project Description: **Energy Sibley Gen Station FAI CM**
 City/State Collected: _____ Please Circle: **PT MT CT ET**

Phone: **913-681-0030**
 Client Project #: **27222162.23 - 3**
 Lab Project #: **AQUAOPKS-SIBLEY**

Collected by (print): **Jason Franks**
 Site/Facility ID #: _____ P.O. #: _____

Collected by (signature): *[Signature]*
 Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #: _____
 Date Results Needed: _____

Immediately Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALKBI, ALKCA 125mlHDPE-NoPres	Chloride, F, SO4 125mlHDPE-NoPres	DOC (Field Filtered) 250mlAmb-HCl	Dissolved Metals 250mlHDPE-NoPres	FERUSFE 250mlAmb-HCl	Sulfide 250mlAmb-S-NaOH+ZnAc	TDS 1L-HDPE NoPres	TOC 250mlAmb-HCl	Total Metals 250mlHDPE-HNO3
MW-806R	GRAB	GW	-	11/15/23	1310	9	X	X	X	X	X	X	X	X	X
MW-807		GW	-	11/16/23	1330	9	X	X	X	X	X	X	X	X	X
MW-808		GW	-		1410	9	X	X	X	X	X	X	X	X	X
MW-809		GW	-		1125	9	X	X	X	X	X	X	X	X	X
MW-810		GW	-		1235	9	X	X	X	X	X	X	X	X	X
MW-811		GW	-		1355	9	X	X	X	X	X	X	X	X	X
MW-812		GW	-		1440	9	X	X	X	X	X	X	X	X	X
MW-813		GW	-		1550	9	X	X	X	X	X	X	X	X	X
MW-815		GW	-		1455	9	X	X	X	X	X	X	X	X	X
MW-816		GW	-		1555	9	X	X	X	X	X	X	X	X	X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALKBI, ALKCA 125mlHDPE-NoPres	Chloride, F, SO4 125mlHDPE-NoPres	DOC (Field Filtered) 250mlAmb-HCl	Dissolved Metals 250mlHDPE-NoPres	FERUSFE 250mlAmb-HCl	Sulfide 250mlAmb-S-NaOH+ZnAc	TDS 1L-HDPE NoPres	TOC 250mlAmb-HCl	Total Metals 250mlHDPE-HNO3
MW-806R	GRAB	GW	-	11/15/23	1310	9	X	X	X	X	X	X	X	X	X
MW-807		GW	-	11/16/23	1330	9	X	X	X	X	X	X	X	X	X
MW-808		GW	-		1410	9	X	X	X	X	X	X	X	X	X
MW-809		GW	-		1125	9	X	X	X	X	X	X	X	X	X
MW-810		GW	-		1235	9	X	X	X	X	X	X	X	X	X
MW-811		GW	-		1355	9	X	X	X	X	X	X	X	X	X
MW-812		GW	-		1440	9	X	X	X	X	X	X	X	X	X
MW-813		GW	-		1550	9	X	X	X	X	X	X	X	X	X
MW-815		GW	-		1455	9	X	X	X	X	X	X	X	X	X
MW-816		GW	-		1555	9	X	X	X	X	X	X	X	X	X

* Matrix: SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other _____

Remarks: Exclude MW-806R for total molybdenum.

Samples returned via: UPS FedEx Courier _____ Tracking #: _____

Relinquished by: (Signature) *[Signature]* Date: 11/17/23 Time: 1600
 Received by: (Signature) _____ Trip Blank Received: Yes (No) HCL / MeOH TBR

Relinquished by: (Signature) _____ Date: _____ Time: _____
 Received by: (Signature) _____ Temp: °C Bottles Received: 96 If present: PH-10BDH4321 TRC-235230 CR6-20221V

Relinquished by: (Signature) _____ Date: _____ Time: _____
 Received by: (Signature) _____ Date: 11-18-23 Time: 900
 Condition: NCF / OK

Chain of Custody Page 1 of 2

Pace
 PEOPLE ADVANCING SCIENCE

MT JULIET, TN
 12065 Lebanon Rd. Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at:
<https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # **UL791623**
B123

Table _____

Acctnum: **AQUAOPKS**
 Template: **T236081**
 Prelogin: **P1033762**
 PM: **206 - Jeff Carr**
 PB: _____

Shipped Via: **FedEX Ground**

Remarks _____ Sample # (lab only) _____

Company Name/Address:
SCS Engineers - KS
 8575 W. 110th Street
 Overland Park, KS 66210

Billing Information:
 Accounts Payable
 8575 W. 110th Street
 Overland Park, KS 66210

Pres
 Chk

Analysis / Container / Preservative

Report to:
Jason Franks

Email To:
 jfranks@scsengineers.com; jrockhold@scsengine

Project Description:
Evergy Sibley Gen Station FAI CM

City/State
 Collected:

Please Circle:
 PT MT CT ET

Phone: **913-681-0030**

Client Project #
27222162.23 - 3

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
JASON R FRANKS

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Immediately
 Packed on Ice N Y

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

MW-819	GRAB	GW	-	11/16/23	1625	9
MW-822	GRAB	GW	-	11/16/23	1105	9

ALKBI, ALKCA 125mIHDPE-NoPres	Chloride, F, SO4 125mIHDPE-NoPres	DOC (Field Filtered) 250mlAmb-HCl	Dissolved Metals 250mlHDPE-NoPres	FERUSFE 250mlAmb-HCl	Sulfide 250mlAmb-S-NaOH+ZnAc	TDS 1L-HDPE NoPres	TOC 250mlAmb-HCl	Total Metals 250mlHDPE-HNO3
X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X

Pace
 PEOPLE ADVANCING SCIENCE
MT JULIET, TN
 12065 Lebanon Rd Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

SDG # **41679623**
 Table #
 Acctnum: **AQUAOPKS**
 Template: **T236081**
 Prelogin: **P1033762**
 PM: **206 - Jeff Carr**
 PB:
 Shipped Via: **FedEX Ground**
 Remarks | Sample # (lab only)

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: Exclude MW-806R for total molybdenum.

pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist	
COC Seal Present/Intact:	<input type="checkbox"/> NP <input checked="" type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> N

Relinquished by: (Signature) 	Date: 11/17/23	Time: 1600	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 910

Trip Blank Received: Yes / No HCL / MeOH TBR	Temp: °C	Bottles Received:	If preservation required by Login: Date/Time
			Hold:
			Condition: (OK) NCF /

U16791623

Tracking Numbers		Temperature
6481 5470 4425		CA8 1.3+0=1.3
6481 5470 4811		CA8 2.3+0=2.3
6481 5470 4877		CA8 0.1+0=0.1
6481 5470 4822		CA8 3.6+0=3.6
6481 5470 5005		CA8 1.3+0=1.3
2074 9788 2858		CA8 3.0+0=3.0
6451 5470 4802		CA8 2.2+0=2.2
7014 5686 3190		CA8 0.1+0=0.1
6481 5470 4951		CA8 1.1+0=1.1
6481 5470 4894		CA8 1.3+0=1.3
6481 5470 4855		CA8 1.5+0=1.5
6481 5470 3675		CA8 4.1+0=4.1

APPENDIX D

STATISTICAL ANALYSES

E.1 Fall 2022 Semiannual Assessment Monitoring Statistical Analyses

E.2 Spring 2023 Semiannual and Annual Assessment Monitoring Statistical Analyses

Appendix E.1

Fall 2022 Semiannual Assessment Monitoring Statistical Analyses

MEMORANDUM

September 28, 2023

To: Sibley Generating Station
 33200 E Johnson Road
 Sibley, Missouri 64088
 Evergy Missouri West, Inc.



From: SCS Engineers
 John Rockhold, P.G.
 Douglas Doerr, P.E.

RE: Determination of Statistically Significant Increases/Levels – Fly Ash Impoundment
 May 2023 Semi-Annual Assessment Monitoring 40 CFR 257.95

Statistical analysis of monitoring data from the groundwater monitoring system for the Fly Ash Impoundment at the Sibley Generating Station has been completed in substantial compliance with the “Statistical Method Certification by A Qualified Professional Engineer” dated October 12, 2017. Groundwater samples were collected on May 18, 2023. Review and validation of the results from the May 2023 Assessment Monitoring Event was completed on June 30, 2023, which constitutes completion and finalization of assessment monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there were statistically significant increases (SSIs) over background values and whether the concentrations were at statistically significant levels (SSLs) above their groundwater protection standard (GWPS) for each constituent analyzed as part of the Assessment Monitoring Event. One round of verification sampling was conducted for certain constituents on July 7, 2023.

The completed statistical evaluation identified three Appendix IV constituents above their prediction limits.

Constituent/Monitoring Well	*UPL/**GWPS	Observation May 18, 2023	1st Verification July 7, 2023
Chromium			
MW-801	0.01/0.1	0.015	NA
Fluoride			
MW-804	0.2441/4	0.247	NA
Selenium			
MW-802	0.00266/0.05	0.00353	NA

*UPL – Upper Prediction Limit
 **GWPS – Groundwater Protection Standard
 NA – Not Applicable

Determination: A statistical evaluation was completed for the Appendix IV assessment monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified SSIs above the background prediction limit for chloride in MW-801; fluoride in monitoring well MW-804; and selenium in monitoring well MW-802. However, all of the detected Appendix IV constituent concentrations were below their respective GWPSs.

Attached to this memorandum are the following backup information:

Attachment 1: Sanitas™ Output:

Statistical evaluation output from Sanitas™ for the prediction limit analysis. This includes prediction limit plots, prediction limit background data, assessment sample results, 1st verification re-sample results (when applicable), and a Prediction Limit summary table. Output documentation includes the analytical data used for the statistical analyses.

Attachment 2: Sanitas™ Configuration Settings:

Screen shots of the applicable Sanitas™ configuration settings for the statistical prediction limit analysis. This includes data configuration, output configuration, prediction limit configuration and other tests configuration.

Revision Number	Revision Date	Attachment Revised	Summary of Revisions

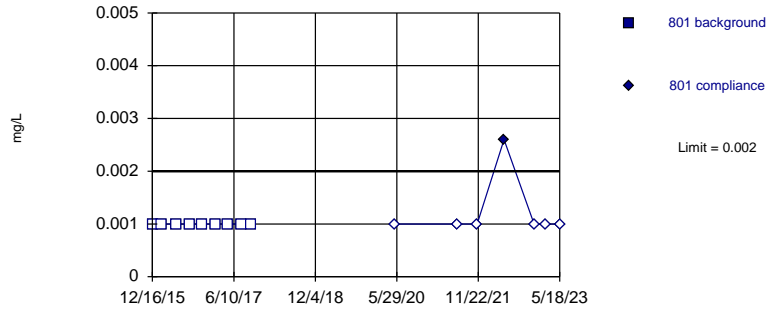
Sibley Generating Station
Determination of Statistically Significant Increases
Fly Ash Impoundment
September 28, 2023

ATTACHMENT 1

Sanitas™ Output

Within Limit

Prediction Limit
Intrawell Non-parametric

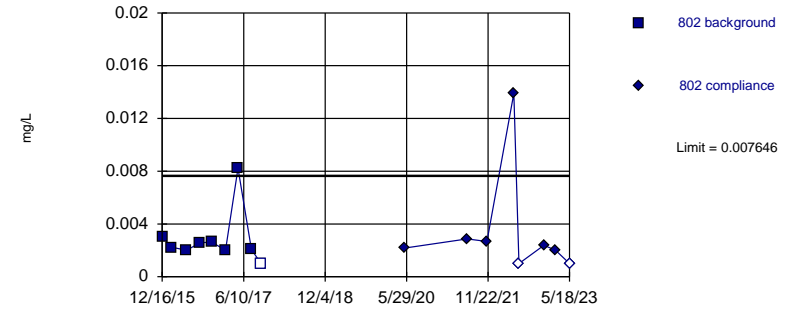


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Arsenic Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

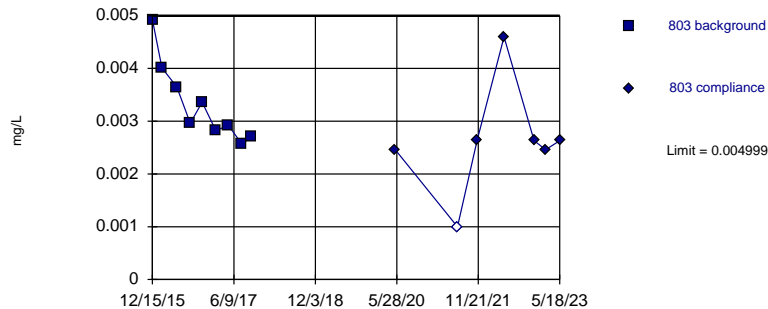


Background Data Summary (based on cube root transformation): Mean=0.1368, Std. Dev.=0.02743, n=9, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7996, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

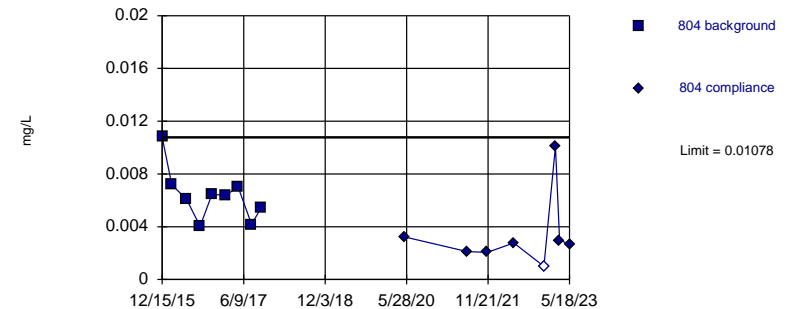


Background Data Summary: Mean=0.003324, Std. Dev.=0.0007636, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8749, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.006396, Std. Dev.=0.001997, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8818, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

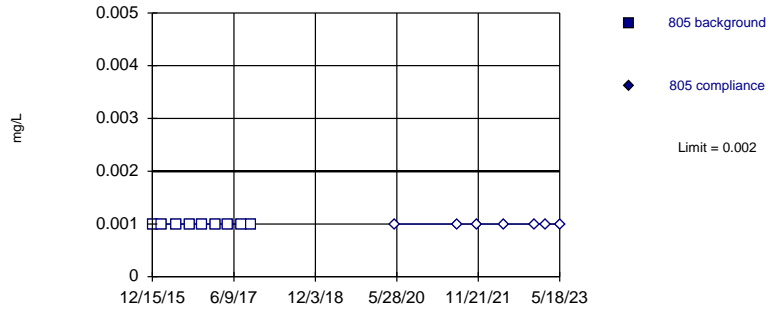
Prediction Limit

Constituent: Arsenic Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	801	801	802	802	803	803	804	804
12/15/2015					0.00493		0.0108	
12/16/2015	<0.002		0.00304					
2/17/2016	<0.002		0.00223		0.00401		0.00719	
5/26/2016	<0.002		0.002		0.00365		0.00607	
8/23/2016	<0.002		0.00257		0.00296		0.00403	
11/10/2016	<0.002		0.00262		0.00336		0.00644	
2/9/2017	<0.002		0.002		0.00282		0.0064	
5/3/2017	<0.002		0.00823		0.00292		0.007	
8/1/2017	<0.002		0.00206		0.00257		0.00418	
10/4/2017	<0.002		<0.002		0.0027		0.00545	
5/18/2020		<0.002		0.00218		0.00246		0.00322
7/6/2021		<0.002		0.00286		<0.002		0.00211
11/15/2021		<0.002		0.00267		0.00265		0.00205
5/12/2022		0.0026		0.0139		0.0046		0.00277
6/15/2022				<0.002				
11/29/2022		<0.002		0.00238		0.00263		<0.002
2/13/2023		<0.002		0.00202		0.00246		0.0101
3/13/2023								0.00297
5/18/2023		<0.002		<0.002		0.00263		0.00269

Within Limit

Prediction Limit
Intrawell Non-parametric

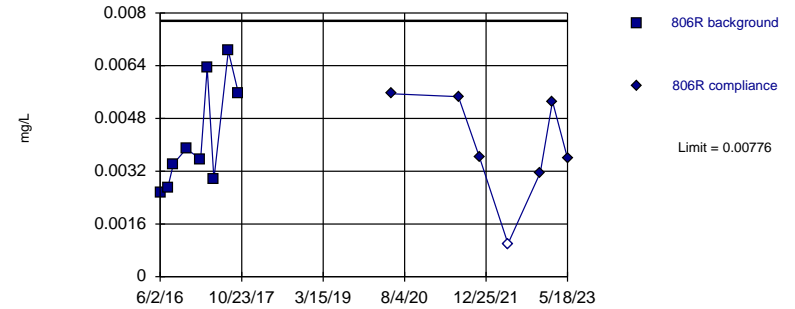


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Arsenic Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

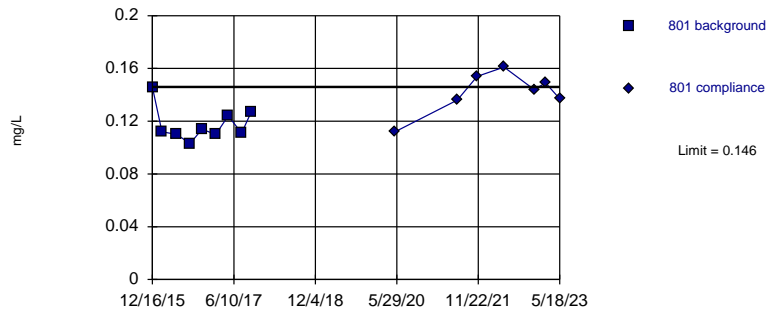


Background Data Summary: Mean=0.004201, Std. Dev.=0.001623, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8645, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

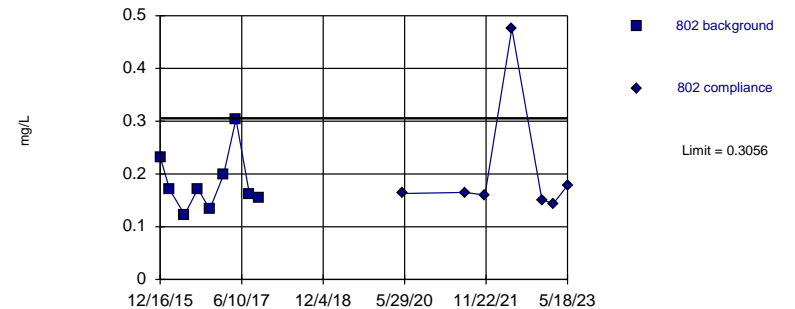


Background Data Summary: Mean=0.1174, Std. Dev.=0.013, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8491, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.1831, Std. Dev.=0.05583, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8822, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

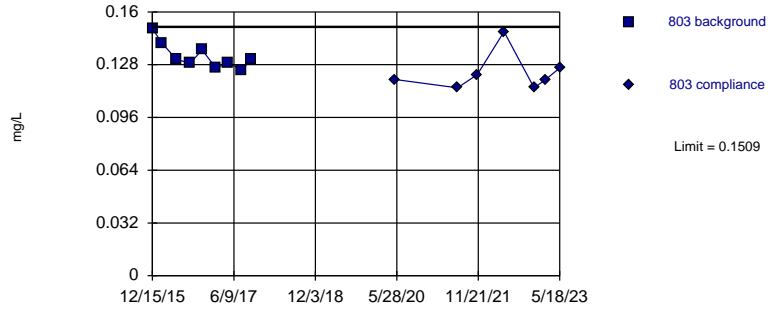
Prediction Limit

Constituent: Arsenic, Barium Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.002							
12/16/2015					0.146		0.232	
2/17/2016	<0.002				0.112		0.17	
5/26/2016	<0.002				0.11		0.123	
6/2/2016			0.00256					
7/19/2016			0.00269					
8/23/2016	<0.002		0.00342		0.103		0.172	
11/10/2016	<0.002				0.114		0.133	
11/11/2016			0.00388					
2/9/2017	<0.002		0.00357		0.11		0.198	
3/22/2017			0.00634					
5/3/2017	<0.002		0.00295		0.124		0.304	
8/1/2017	<0.002		0.00685		0.111		0.162	
10/4/2017	<0.002		0.00555		0.127		0.154	
5/18/2020		<0.002		0.00555		0.112		0.163
7/6/2021		<0.002		0.00546		0.136		0.165
11/15/2021		<0.002		0.00362		0.154		0.16
5/12/2022		<0.002		<0.002		0.161		0.476
11/29/2022		<0.002		0.00316		0.144		0.151
2/13/2023		<0.002		0.00532		0.149		0.144
5/18/2023		<0.002		0.00359		0.137		0.178

Within Limit

Prediction Limit
Intrawell Parametric



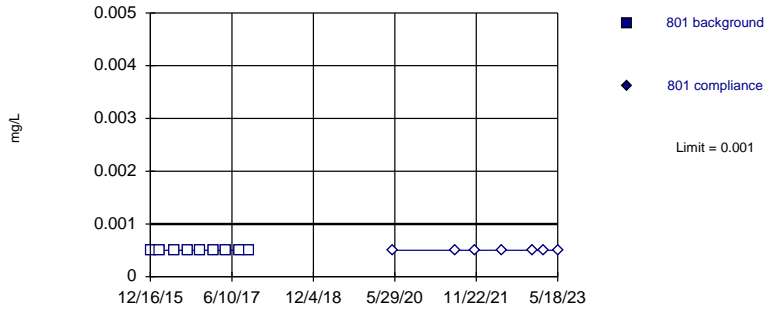
Prediction Limit

Constituent: Barium Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	803	803	804	804	805	805	806R	806R
12/15/2015	0.15		0.531		0.18			
2/17/2016	0.141		0.37		0.172			
5/26/2016	0.131		0.398		0.181			
6/2/2016							0.125	
7/19/2016							0.104	
8/23/2016	0.129		0.329		0.174		0.102	
11/10/2016	0.137		0.39		0.171			
11/11/2016							0.0966	
2/9/2017	0.126		0.342		0.163		0.0919	
3/22/2017							0.103	
5/3/2017	0.129		0.411		0.17		0.0747	
8/1/2017	0.125		0.365		0.163		0.093	
10/4/2017	0.131		0.406		0.168		0.0901	
5/18/2020		0.119		0.477		0.143		0.0714
7/6/2021		0.114		0.429		0.148		0.0775
11/15/2021		0.122		0.45		0.14		0.0723
5/12/2022		0.148		0.398		0.153		0.0885
11/29/2022		0.114		0.431		0.139		0.074
2/13/2023		0.119		0.532		0.145		0.0807
5/18/2023		0.126		0.518		0.148		0.0692

Within Limit

Prediction Limit Intrawell Non-parametric

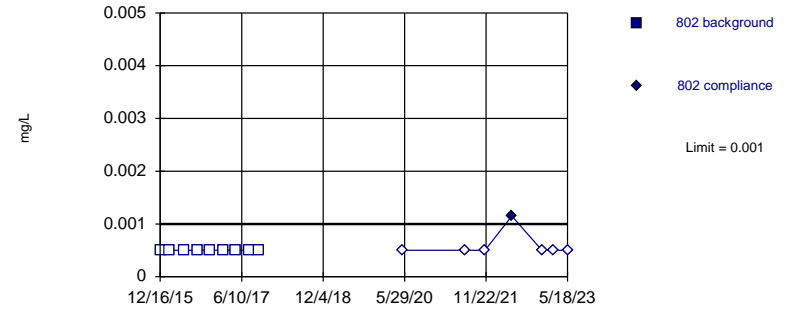


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

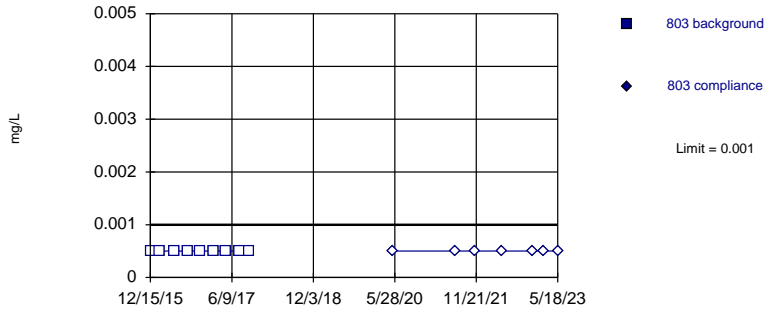


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

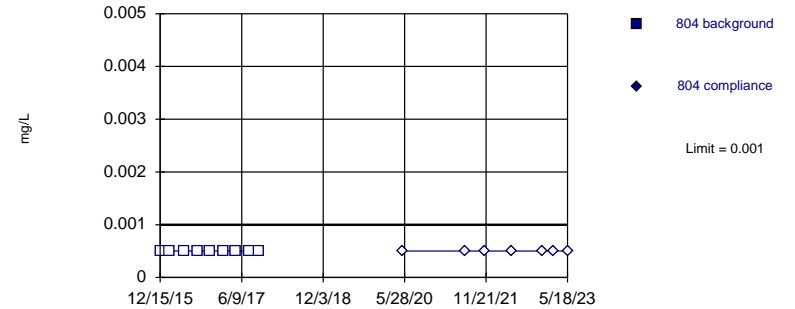


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

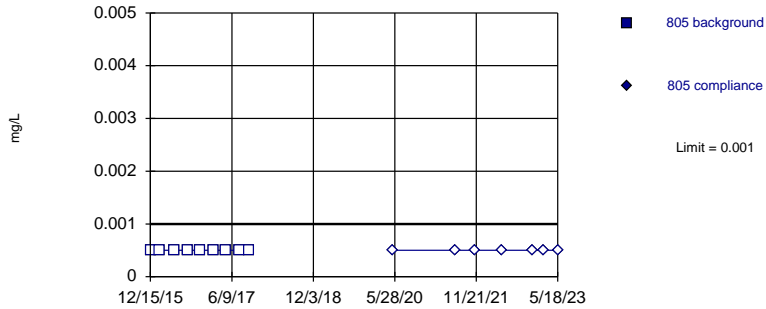
Prediction Limit

Constituent: Cadmium Analysis Run 8/24/2023 4:32 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	801	801	802	802	803	803	804	804
12/15/2015					<0.001		<0.001	
12/16/2015	<0.001		<0.001					
2/17/2016	<0.001		<0.001		<0.001		<0.001	
5/26/2016	<0.001		<0.001		<0.001		<0.001	
8/23/2016	<0.001		<0.001		<0.001		<0.001	
11/10/2016	<0.001		<0.001		<0.001		<0.001	
2/9/2017	<0.001		<0.001		<0.001		<0.001	
5/3/2017	<0.001		<0.001		<0.001		<0.001	
8/1/2017	<0.001		<0.001		<0.001		<0.001	
10/4/2017	<0.001		<0.001		<0.001		<0.001	
5/18/2020		<0.001		<0.001		<0.001		<0.001
7/6/2021		<0.001		<0.001		<0.001		<0.001
11/15/2021		<0.001		<0.001		<0.001		<0.001
5/12/2022		<0.001		0.00115		<0.001		<0.001
11/29/2022		<0.001		<0.001		<0.001		<0.001
2/13/2023		<0.001		<0.001		<0.001		<0.001
5/18/2023		<0.001		<0.001		<0.001		<0.001

Within Limit

Prediction Limit Intrawell Non-parametric

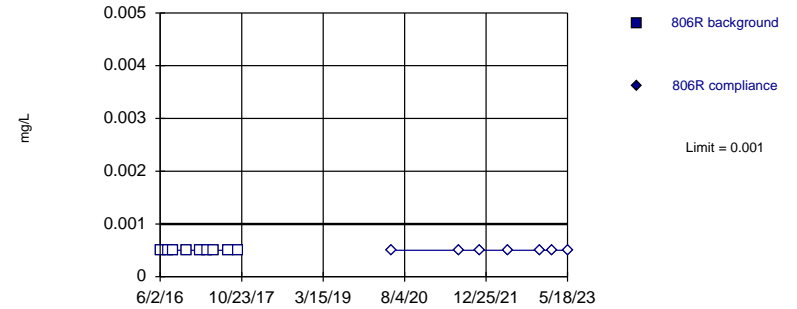


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

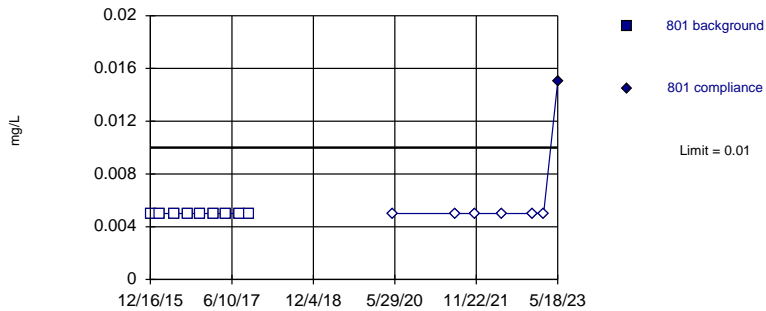


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Exceeds Limit

Prediction Limit Intrawell Non-parametric

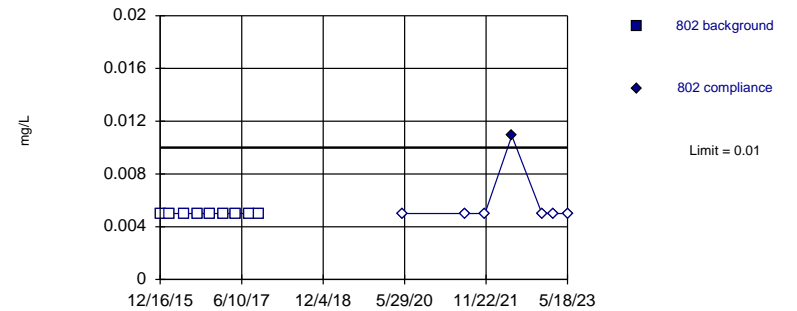


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

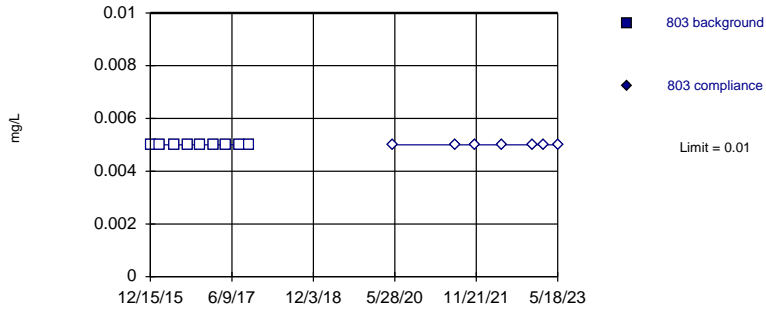
Prediction Limit

Constituent: Cadmium, Chromium Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.001							
12/16/2015					<0.01		<0.01	
2/17/2016	<0.001				<0.01		<0.01	
5/26/2016	<0.001				<0.01		<0.01	
6/2/2016			<0.001					
7/19/2016			<0.001					
8/23/2016	<0.001		<0.001		<0.01		<0.01	
11/10/2016	<0.001				<0.01		<0.01	
11/11/2016			<0.001					
2/9/2017	<0.001		<0.001		<0.01		<0.01	
3/22/2017			<0.001					
5/3/2017	<0.001		<0.001		<0.01		<0.01	
8/1/2017	<0.001		<0.001		<0.01		<0.01	
10/4/2017	<0.001		<0.001		<0.01		<0.01	
5/18/2020		<0.001		<0.001		<0.01		<0.01
7/6/2021		<0.001		<0.001		<0.01		<0.01
11/15/2021		<0.001		<0.001		<0.01		<0.01
5/12/2022		<0.001		<0.001		<0.01		0.0109
11/29/2022		<0.001		<0.001		<0.01		<0.01
2/13/2023		<0.001		<0.001		<0.01		<0.01
5/18/2023		<0.001		<0.001		0.015		<0.01

Within Limit

Prediction Limit Intrawell Non-parametric

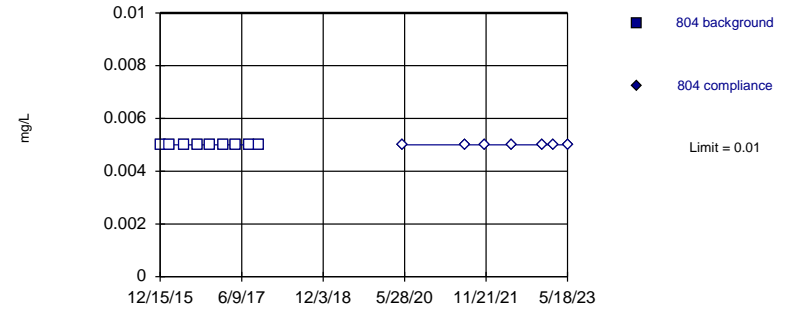


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

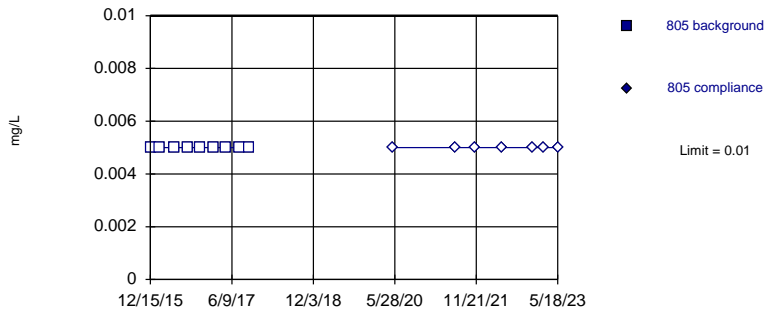


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

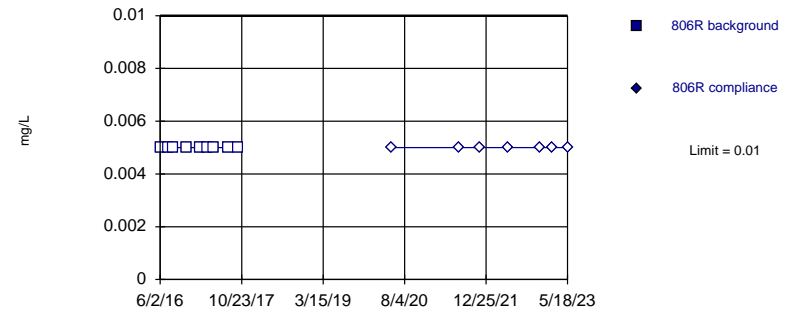


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

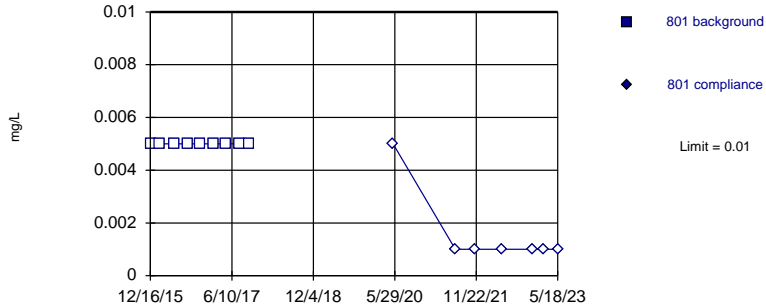
Prediction Limit

Constituent: Chromium Analysis Run 8/24/2023 4:32 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	803	803	804	804	805	805	806R	806R
12/15/2015	<0.01		<0.01		<0.01			
2/17/2016	<0.01		<0.01		<0.01			
5/26/2016	<0.01		<0.01		<0.01			
6/2/2016							<0.01	
7/19/2016							<0.01	
8/23/2016	<0.01		<0.01		<0.01		<0.01	
11/10/2016	<0.01		<0.01		<0.01			
11/11/2016							<0.01	
2/9/2017	<0.01		<0.01		<0.01		<0.01	
3/22/2017							<0.01	
5/3/2017	<0.01		<0.01		<0.01		<0.01	
8/1/2017	<0.01		<0.01		<0.01		<0.01	
10/4/2017	<0.01		<0.01		<0.01		<0.01	
5/18/2020		<0.01		<0.01		<0.01		<0.01
7/6/2021		<0.01		<0.01		<0.01		<0.01
11/15/2021		<0.01		<0.01		<0.01		<0.01
5/12/2022		<0.01		<0.01		<0.01		<0.01
11/29/2022		<0.01		<0.01		<0.01		<0.01
2/13/2023		<0.01		<0.01		<0.01		<0.01
5/18/2023		<0.01		<0.01		<0.01		<0.01

Within Limit

Prediction Limit
 Intrawell Non-parametric



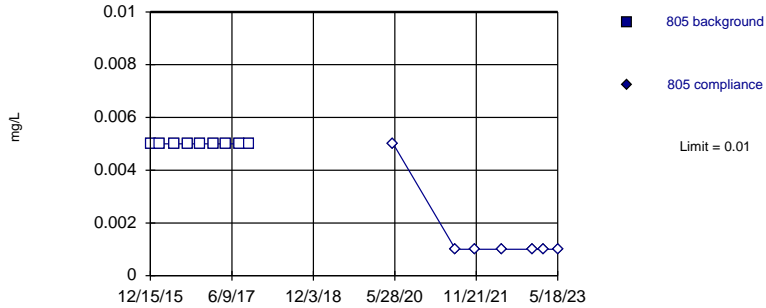
Prediction Limit

Constituent: Cobalt Analysis Run 8/24/2023 4:32 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	801	801	802	802	803	803	804	804
12/15/2015					<0.01		<0.01	
12/16/2015	<0.01		<0.01					
2/17/2016	<0.01		<0.01		<0.01		<0.01	
5/26/2016	<0.01		<0.01		<0.01		<0.01	
8/23/2016	<0.01		<0.01		<0.01		<0.01	
11/10/2016	<0.01		<0.01		<0.01		<0.01	
2/9/2017	<0.01		<0.01		<0.01		<0.01	
5/3/2017	<0.01		<0.01		<0.01		<0.01	
8/1/2017	<0.01		<0.01		<0.01		<0.01	
10/4/2017	<0.01		<0.01		<0.01		<0.01	
5/18/2020		<0.01		<0.01		<0.01		<0.01
7/6/2021		<0.002		<0.002		<0.002		<0.002
11/15/2021		<0.002		<0.002		<0.002		<0.002
5/12/2022		<0.002		0.0111		<0.002		<0.002
6/15/2022				<0.002				
11/29/2022		<0.002		<0.002		<0.002		<0.002
2/13/2023		<0.002		<0.002		<0.002		<0.002
5/18/2023		<0.002		<0.002		<0.002		<0.002

Within Limit

Prediction Limit
Intrawell Non-parametric

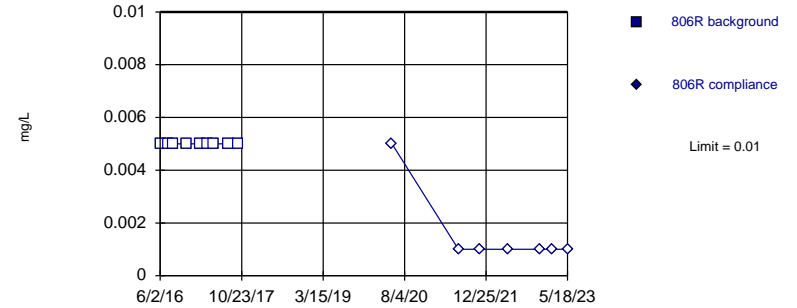


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Non-parametric

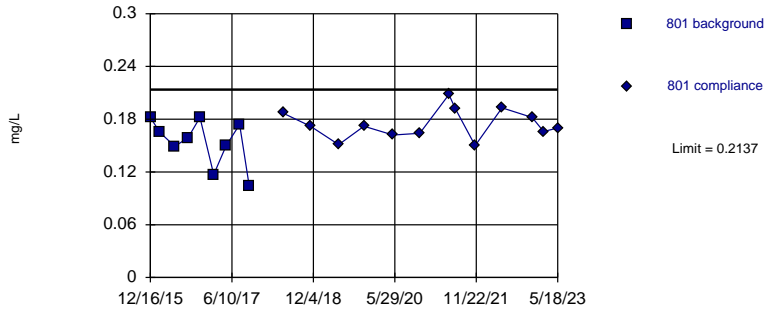


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

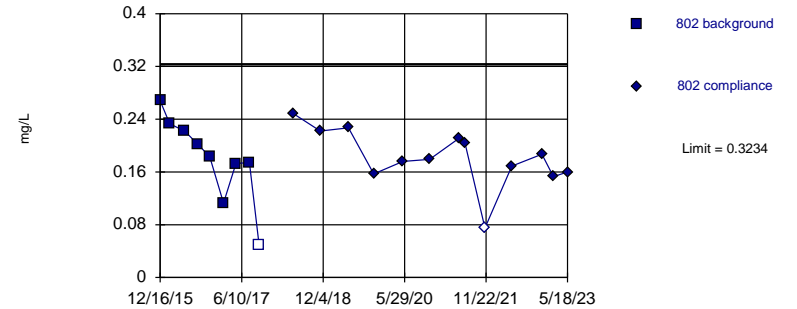


Background Data Summary: Mean=0.1536, Std. Dev.=0.02744, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.894, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.1798, Std. Dev.=0.06546, n=9, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9411, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

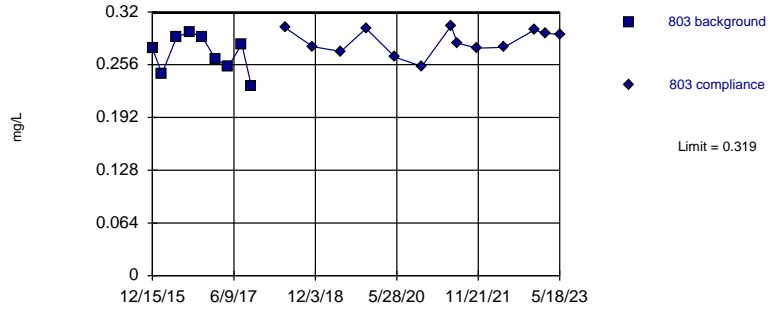
Prediction Limit

Constituent: Cobalt, Fluoride Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.01							
12/16/2015					0.182		0.268	
2/17/2016	<0.01				0.165		0.233	
5/26/2016	<0.01				0.149		0.222	
6/2/2016			<0.01					
7/19/2016			<0.01					
8/23/2016	<0.01		<0.01		0.159		0.202	
11/10/2016	<0.01				0.182		0.183	
11/11/2016			<0.01					
2/9/2017	<0.01		<0.01		0.117		0.113	
3/22/2017			<0.01					
5/3/2017	<0.01		<0.01		0.15		0.173	
8/1/2017	<0.01		<0.01		0.174		0.174	
10/4/2017	<0.01		<0.01		0.104		<0.1	
5/16/2018						0.187		0.249
11/15/2018						0.172		0.222
5/22/2019						0.151		0.227
11/6/2019						0.172		0.157
5/18/2020		<0.01		<0.01		0.162		0.176
11/11/2020						0.164		0.179
5/24/2021						0.208		
5/25/2021								0.211
7/6/2021		<0.002		<0.002		0.192		0.203
11/15/2021		<0.002		<0.002		0.15		<0.15
5/12/2022		<0.002		<0.002		0.193		0.169
11/29/2022		<0.002		<0.002		0.182		0.187
2/13/2023		<0.002		<0.002		0.166		0.153
5/18/2023		<0.002		<0.002		0.17		0.16

Within Limit

Prediction Limit
Intrawell Parametric

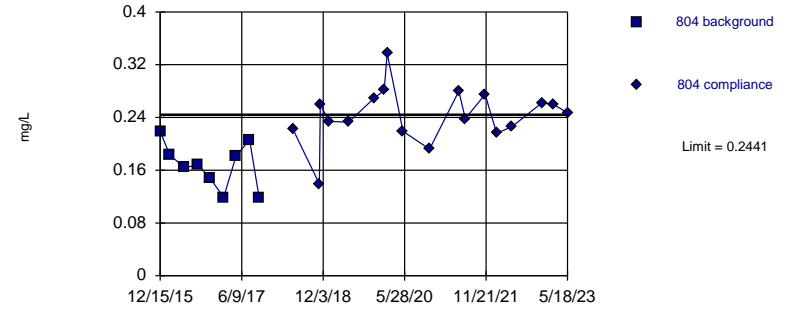


Background Data Summary: Mean=0.2692, Std. Dev.=0.0227, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9261, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Exceeds Limit

Prediction Limit
Intrawell Parametric

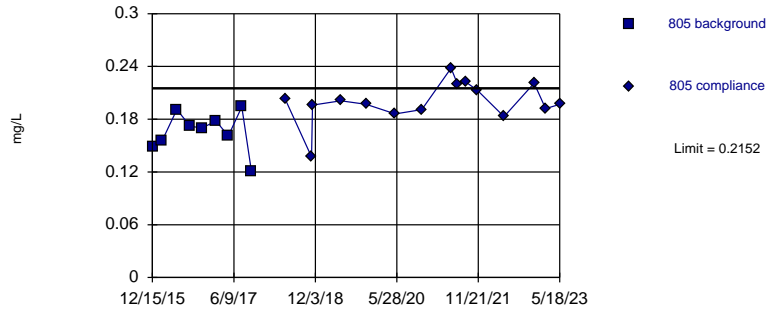


Background Data Summary: Mean=0.1674, Std. Dev.=0.03496, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9484, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

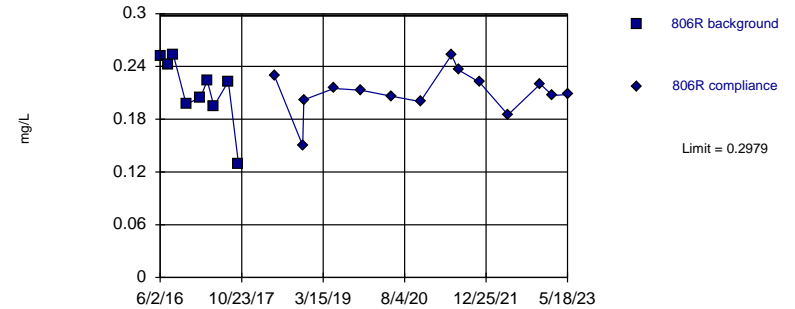


Background Data Summary: Mean=0.1656, Std. Dev.=0.02263, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9537, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.2133, Std. Dev.=0.03854, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8789, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

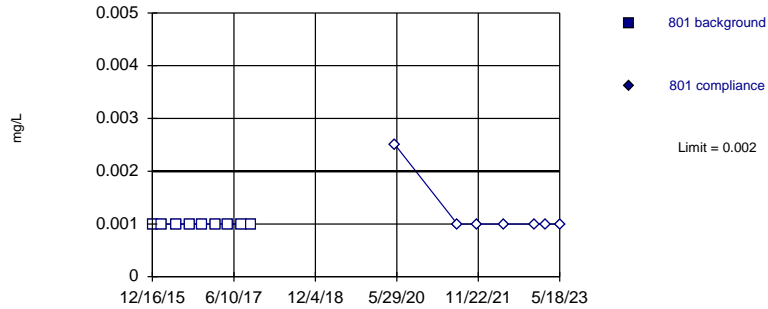
Prediction Limit

Constituent: Fluoride Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	803	803	804	804	805	805	806R	806R
12/15/2015	0.276		0.219		0.148			
2/17/2016	0.245		0.183		0.155			
5/26/2016	0.29		0.164		0.191			
6/2/2016							0.252	
7/19/2016							0.242	
8/23/2016	0.295		0.168		0.172		0.253	
11/10/2016	0.29		0.148		0.17			
11/11/2016							0.197	
2/9/2017	0.262		0.119		0.178		0.205	
3/22/2017							0.224	
5/3/2017	0.254		0.182		0.161		0.195	
8/1/2017	0.281		0.206		0.194		0.223	
10/4/2017	0.23		0.118		0.121		0.129	
5/16/2018		0.301		0.222		0.203		0.229
11/8/2018				0.139		0.137		0.15
11/15/2018		0.278		0.26		0.196		0.202
1/11/2019				0.234				
5/22/2019		0.272		0.233		0.201		0.215
11/6/2019		0.3		0.269		0.197		0.213
1/13/2020				0.281				
2/3/2020				0.337				
5/18/2020		0.265		0.219		0.186		0.206
11/11/2020		0.254		0.192		0.191		0.2
5/24/2021								0.253
5/25/2021		0.303		0.28		0.238		
7/6/2021		0.282		0.238		0.22		0.236
9/2/2021						0.222		
11/15/2021		0.276		0.275		0.213		0.222
1/31/2022				0.216				
5/12/2022		0.277		0.226		0.183		0.185
11/29/2022		0.298		0.262		0.221		0.22
2/13/2023		0.294		0.26		0.192		0.207
5/18/2023		0.293		0.247		0.197		0.208

Within Limit

Prediction Limit
Intrawell Non-parametric

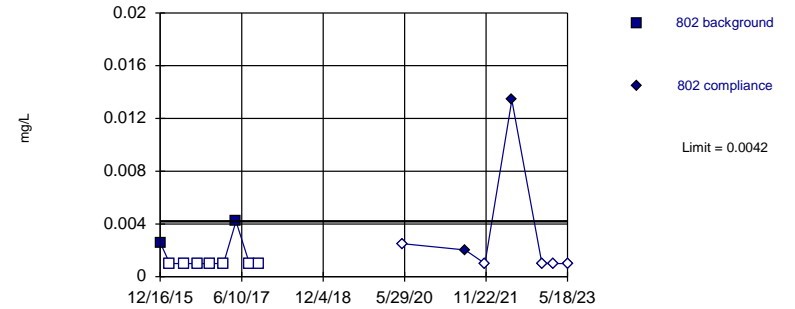


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Non-parametric

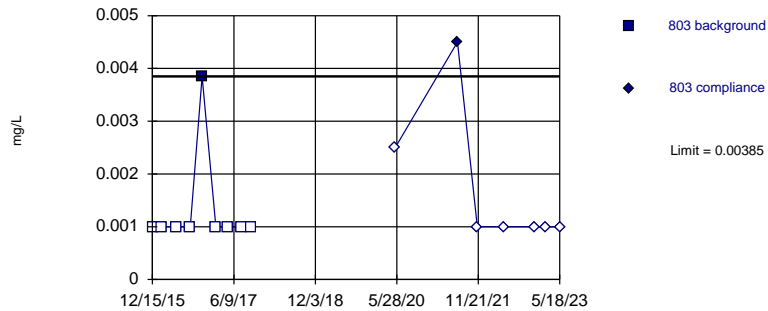


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Non-parametric

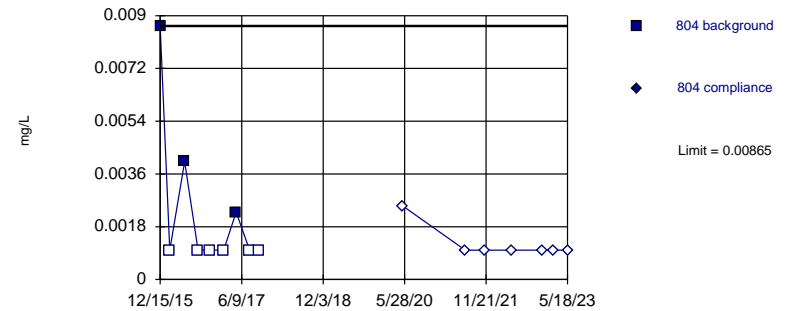


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

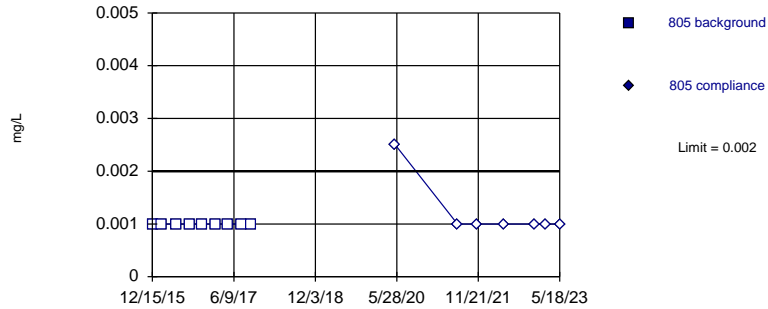
Prediction Limit

Constituent: Lead Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	801	801	802	802	803	803	804	804
12/15/2015					<0.002		0.00865	
12/16/2015	<0.002		0.0026					
2/17/2016	<0.002		<0.002		<0.002		<0.002	
5/26/2016	<0.002		<0.002		<0.002		0.00402	
8/23/2016	<0.002		<0.002		<0.002		<0.002	
11/10/2016	<0.002		<0.002		0.00385		<0.002	
2/9/2017	<0.002		<0.002		<0.002		<0.002	
5/3/2017	<0.002		0.0042		<0.002		0.0023	
8/1/2017	<0.002		<0.002		<0.002		<0.002	
10/4/2017	<0.002		<0.002		<0.002		<0.002	
5/18/2020		<0.005		<0.005		<0.005		<0.005
7/6/2021		<0.002		0.00203		0.0045		<0.002
11/15/2021		<0.002		<0.002		<0.002		<0.002
5/12/2022		<0.002		0.0134		<0.002		<0.002
11/29/2022		<0.002		<0.002		<0.002		<0.002
2/13/2023		<0.002		<0.002		<0.002		<0.002
5/18/2023		<0.002		<0.002		<0.002		<0.002

Within Limit

Prediction Limit
Intrawell Non-parametric

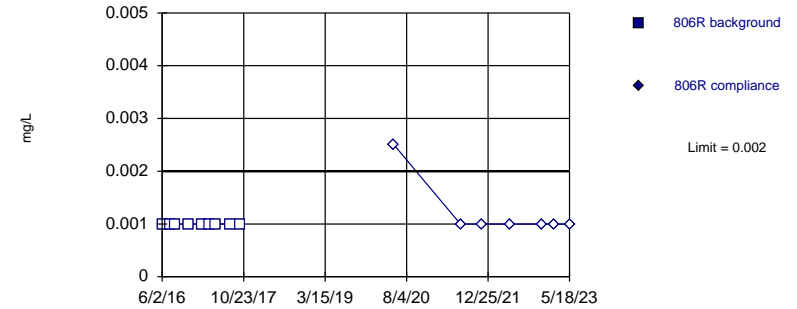


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Non-parametric

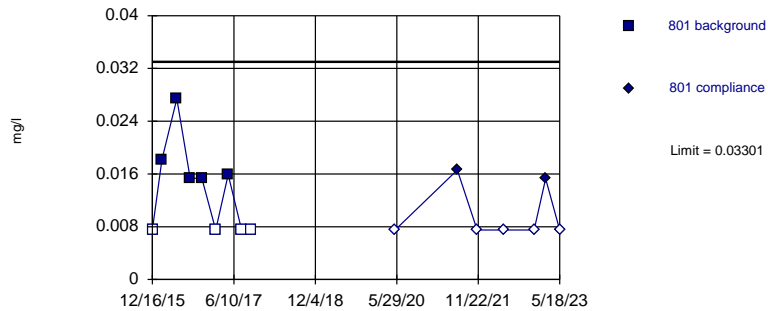


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

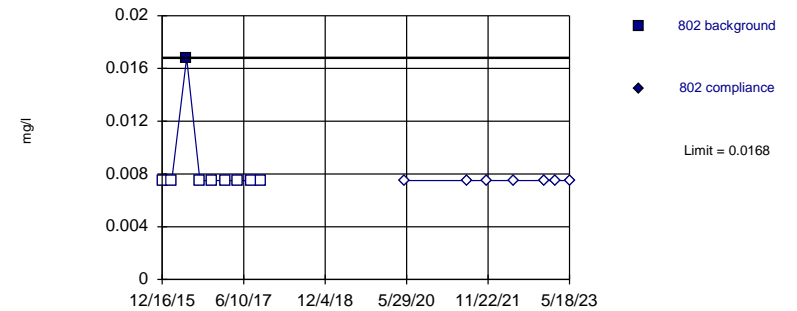


Background Data Summary (after Aitchison's Adjustment): Mean=0.01024, Std. Dev.=0.01038, n=9, 44.44% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8326, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Lithium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

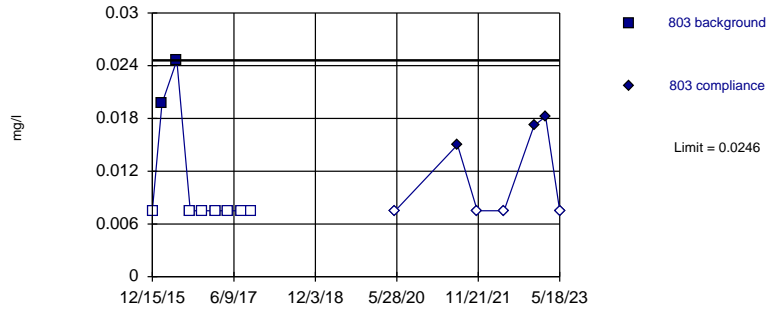
Prediction Limit

Constituent: Lead, Lithium Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.002							
12/16/2015					<0.015		<0.015	
2/17/2016	<0.002				0.0182		<0.015	
5/26/2016	<0.002				0.0274		0.0168	
6/2/2016			<0.002					
7/19/2016			<0.002					
8/23/2016	<0.002		<0.002		0.0154		<0.015	
11/10/2016	<0.002				0.0153		<0.015	
11/11/2016			<0.002					
2/9/2017	<0.002		<0.002		<0.015		<0.015	
3/22/2017			<0.002					
5/3/2017	<0.002		<0.002		0.0159		<0.015	
8/1/2017	<0.002		<0.002		<0.015		<0.015	
10/4/2017	<0.002		<0.002		<0.015		<0.015	
5/18/2020		<0.005		<0.005		<0.015		<0.015
7/6/2021		<0.002		<0.002		0.0166		<0.015
11/15/2021		<0.002		<0.002		<0.015		<0.015
5/12/2022		<0.002		<0.002		<0.015		<0.015
11/29/2022		<0.002		<0.002		<0.015		<0.015
2/13/2023		<0.002		<0.002		0.0153		<0.015
5/18/2023		<0.002		<0.002		<0.015		<0.015

Within Limit

Prediction Limit
Intrawell Non-parametric

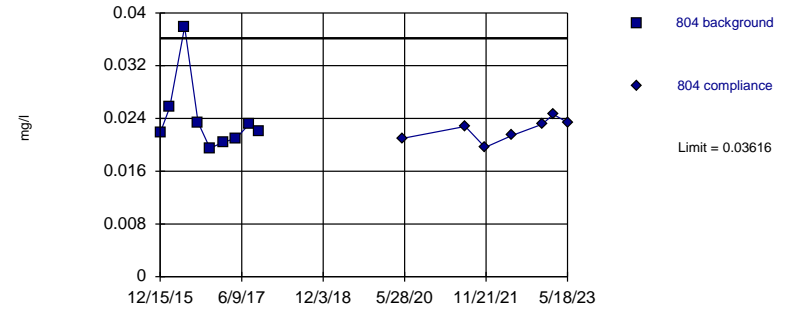


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

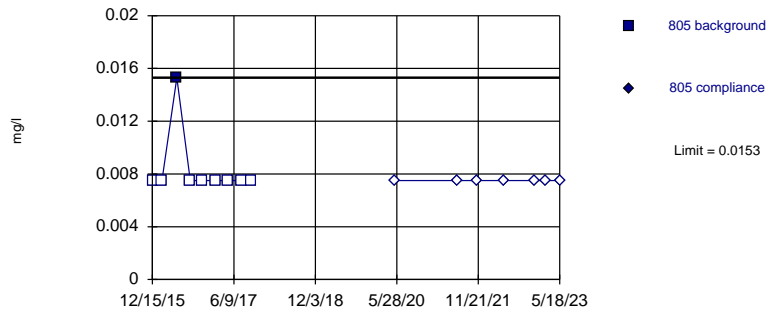


Background Data Summary (based on natural log transformation): Mean=-3.754, Std. Dev.=0.1981, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7756, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Lithium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Non-parametric

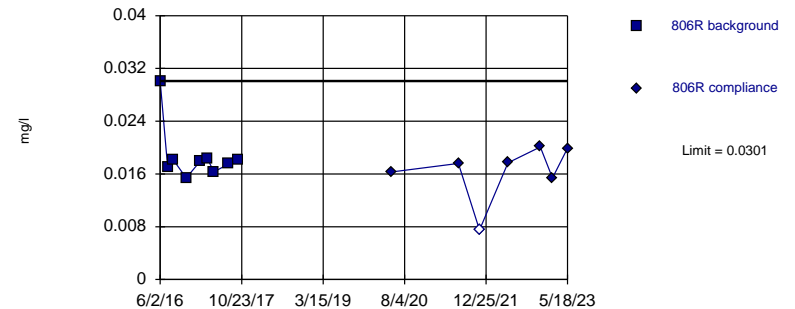


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 9 background values. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

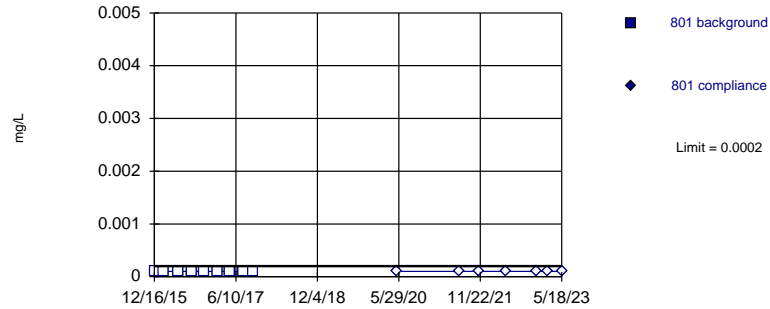
Prediction Limit

Constituent: Lithium Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	803	803	804	804	805	805	806R	806R
12/15/2015	<0.015		0.0218		<0.015			
2/17/2016	0.0197		0.0257		<0.015			
5/26/2016	0.0246		0.0379		0.0153			
6/2/2016							0.0301	
7/19/2016							0.017	
8/23/2016	<0.015		0.0234		<0.015		0.0181	
11/10/2016	<0.015		0.0195		<0.015			
11/11/2016							0.0154	
2/9/2017	<0.015		0.0204		<0.015		0.018	
3/22/2017							0.0184	
5/3/2017	<0.015		0.021		<0.015		0.0163	
8/1/2017	<0.015		0.0232		<0.015		0.0175	
10/4/2017	<0.015		0.022		<0.015		0.0182	
5/18/2020		<0.015		0.021		<0.015		0.0163
7/6/2021		0.015		0.0228		<0.015		0.0176
11/15/2021		<0.015		0.0196		<0.015		<0.015
5/12/2022		<0.015		0.0214		<0.015		0.0177
11/29/2022		0.0172		0.0231		<0.015		0.0201
2/13/2023		0.0182		0.0246		<0.015		0.0154
5/18/2023		<0.015		0.0234		<0.015		0.0199

Within Limit

Prediction Limit Intrawell Non-parametric

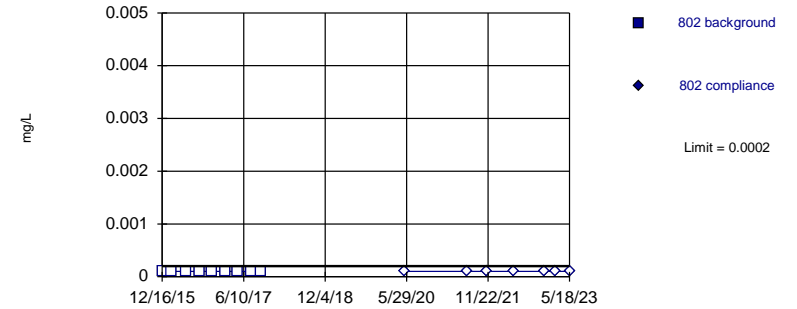


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

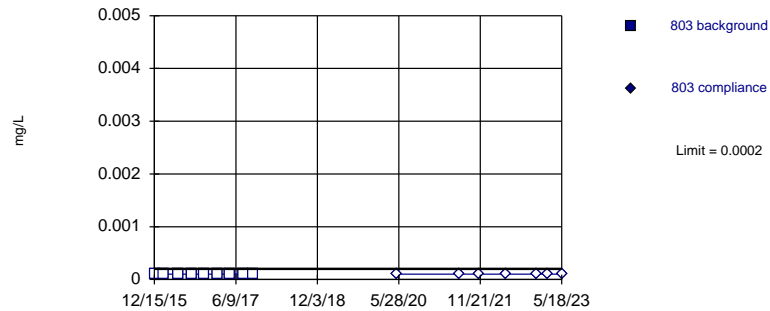


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

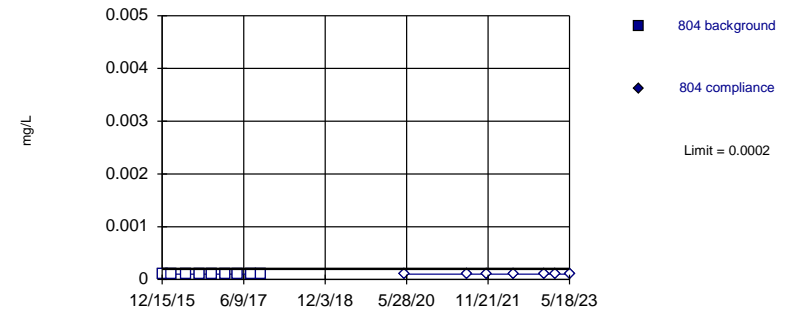


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

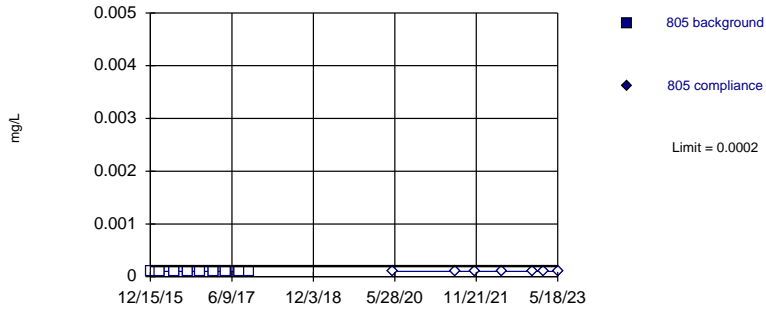
Prediction Limit

Constituent: Mercury Analysis Run 8/24/2023 4:32 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	801	801	802	802	803	803	804	804
12/15/2015					<0.0002		<0.0002	
12/16/2015	<0.0002		<0.0002					
2/17/2016	<0.0002		<0.0002		<0.0002		<0.0002	
5/26/2016	<0.0002		<0.0002		<0.0002		<0.0002	
8/23/2016	<0.0002		<0.0002		<0.0002		<0.0002	
11/10/2016	<0.0002		<0.0002		<0.0002		<0.0002	
2/9/2017	<0.0002		<0.0002		<0.0002		<0.0002	
5/3/2017	<0.0002		<0.0002		<0.0002		<0.0002	
8/1/2017	<0.0002		<0.0002		<0.0002		<0.0002	
10/4/2017	<0.0002		<0.0002		<0.0002		<0.0002	
5/18/2020		<0.0002		<0.0002		<0.0002		<0.0002
7/6/2021		<0.0002		<0.0002		<0.0002		<0.0002
11/15/2021		<0.0002		<0.0002		<0.0002		<0.0002
5/12/2022		<0.0002		<0.0002		<0.0002		<0.0002
11/29/2022		<0.0002		<0.0002		<0.0002		<0.0002
2/13/2023		<0.0002		<0.0002		<0.0002		<0.0002
5/18/2023		<0.0002		<0.0002		<0.0002		<0.0002

Within Limit

Prediction Limit Intrawell Non-parametric

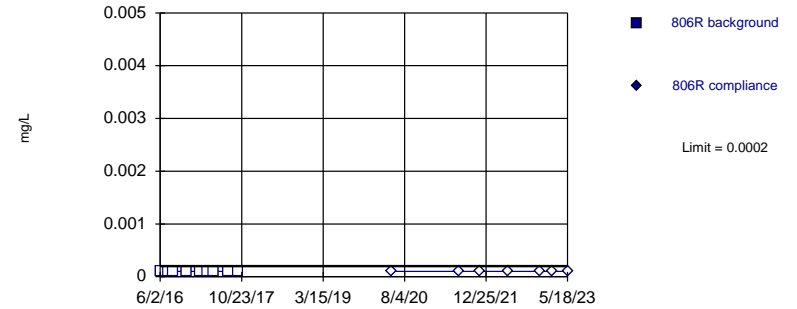


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

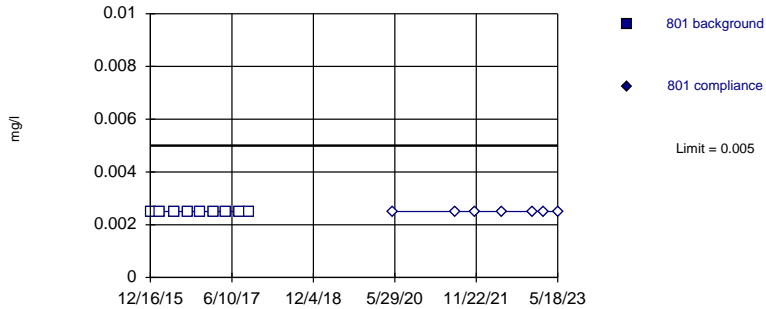


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

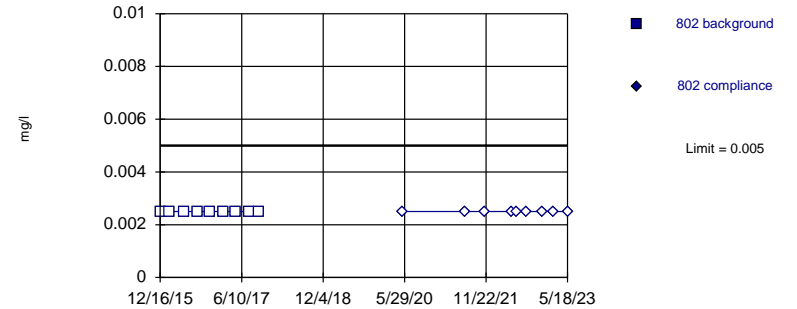


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 8/24/2023 4:26 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

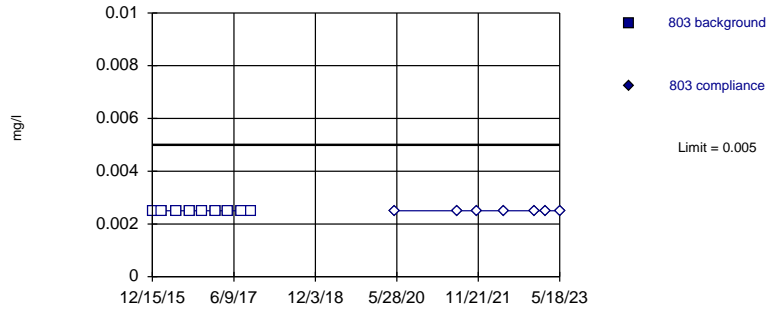
Prediction Limit

Constituent: Mercury, Molybdenum Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.0002							
12/16/2015					<0.005		<0.005	
2/17/2016	<0.0002				<0.005		<0.005	
5/26/2016	<0.0002				<0.005		<0.005	
6/2/2016			<0.0002					
7/19/2016			<0.0002					
8/23/2016	<0.0002		<0.0002		<0.005		<0.005	
11/10/2016	<0.0002				<0.005		<0.005	
11/11/2016			<0.0002					
2/9/2017	<0.0002		<0.0002		<0.005		<0.005	
3/22/2017			<0.0002					
5/3/2017	<0.0002		<0.0002		<0.005		<0.005	
8/1/2017	<0.0002		<0.0002		<0.005		<0.005	
10/4/2017	<0.0002		<0.0002		<0.005		<0.005	
5/18/2020		<0.0002		<0.0002		<0.005		<0.005
7/6/2021		<0.0002		<0.0002		<0.005		<0.005
11/15/2021		<0.0002		<0.0002		<0.005		<0.005
5/12/2022		<0.0002		<0.0002		<0.005		<0.005
6/15/2022								<0.005
8/19/2022								<0.005
11/29/2022		<0.0002		<0.0002		<0.005		<0.005
2/13/2023		<0.0002		<0.0002		<0.005		<0.005
5/18/2023		<0.0002		<0.0002		<0.005		<0.005

Within Limit

Prediction Limit Intrawell Non-parametric

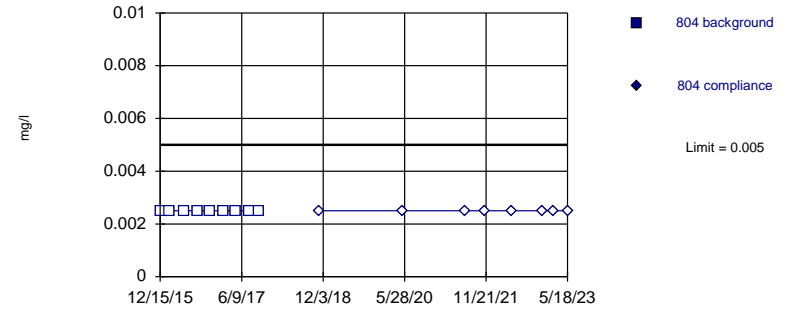


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

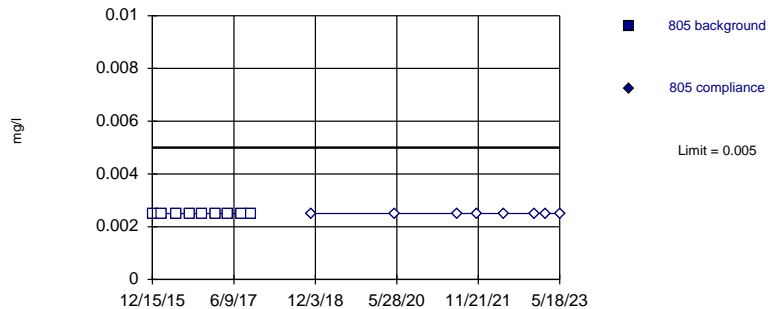


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

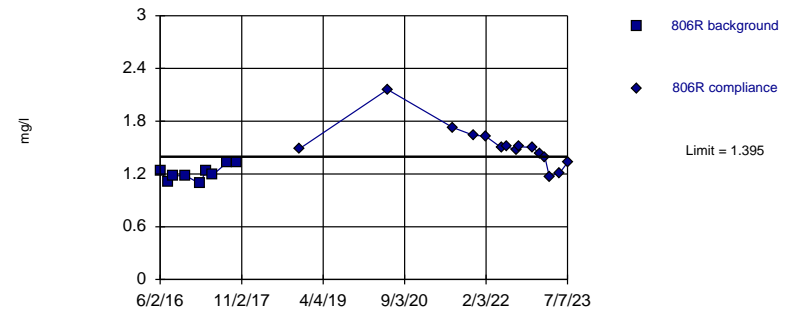


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=1.21, Std. Dev.=0.08456, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9266, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Molybdenum Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

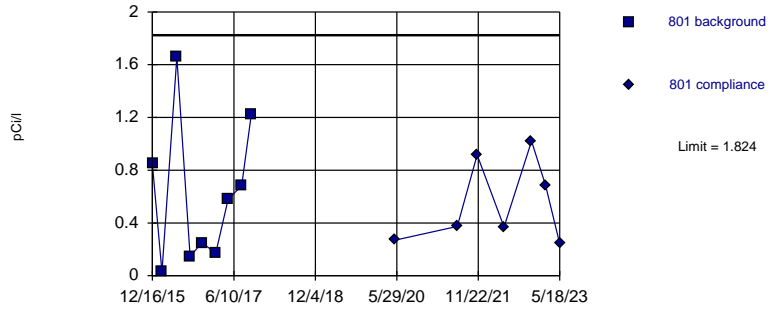
Prediction Limit

Constituent: Molybdenum Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	803	803	804	804	805	805	806R	806R
12/15/2015	<0.005		<0.005		<0.005			
2/17/2016	<0.005		<0.005		<0.005			
5/26/2016	<0.005		<0.005		<0.005			
6/2/2016							1.24	
7/19/2016							1.11	
8/23/2016	<0.005		<0.005		<0.005		1.18	
11/10/2016	<0.005		<0.005		<0.005			
11/11/2016							1.18	
2/9/2017	<0.005		<0.005		<0.005		1.09	
3/22/2017							1.24	
5/3/2017	<0.005		<0.005		<0.005		1.19	
8/1/2017	<0.005		<0.005		<0.005		1.33	
10/4/2017	<0.005		<0.005		<0.005		1.33	
11/8/2018				<0.005		<0.005		1.49
5/18/2020		<0.005		<0.005		<0.005		2.16
7/6/2021		<0.005		<0.005		<0.005		1.73
11/15/2021		<0.005		<0.005		<0.005		1.64
1/31/2022								1.63
5/12/2022		<0.005		<0.005		<0.005		1.5
6/15/2022								1.51
8/18/2022								1.47
9/1/2022								1.51
11/29/2022		<0.005		<0.005		<0.005		1.5
1/11/2023								1.43
2/13/2023		<0.005		<0.005		<0.005		1.39
3/13/2023								1.17
5/18/2023		<0.005		<0.005		<0.005		1.21
7/7/2023								1.33

Within Limit

Prediction Limit
Intrawell Parametric

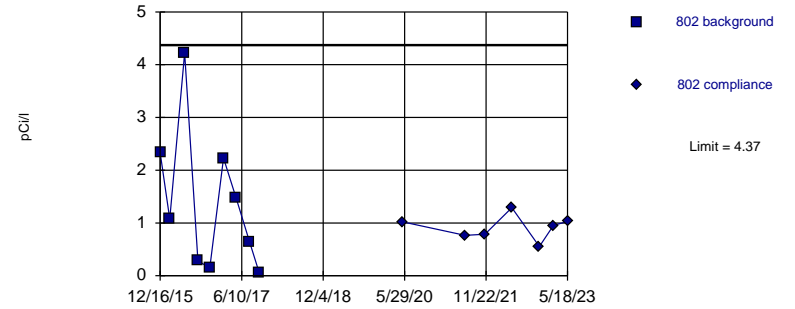


Background Data Summary: Mean=0.6204, Std. Dev.=0.5487, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.913, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

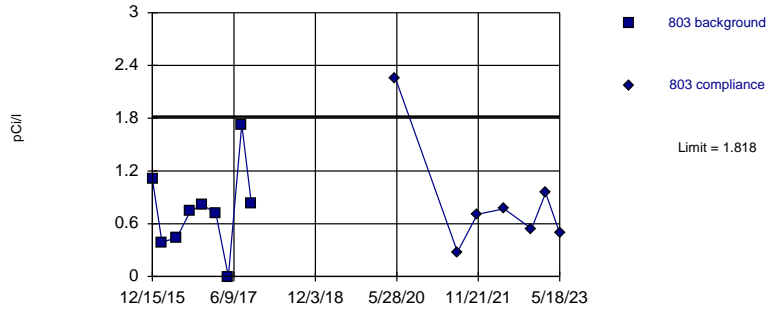


Background Data Summary: Mean=1.388, Std. Dev.=1.36, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8858, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

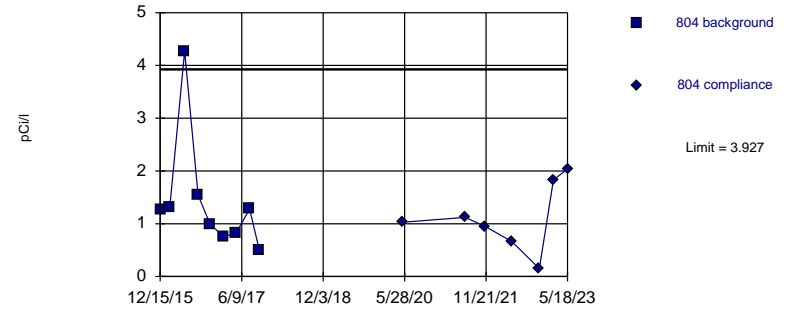


Background Data Summary: Mean=0.7523, Std. Dev.=0.486, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9475, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=1.133, Std. Dev.=0.3871, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.797, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

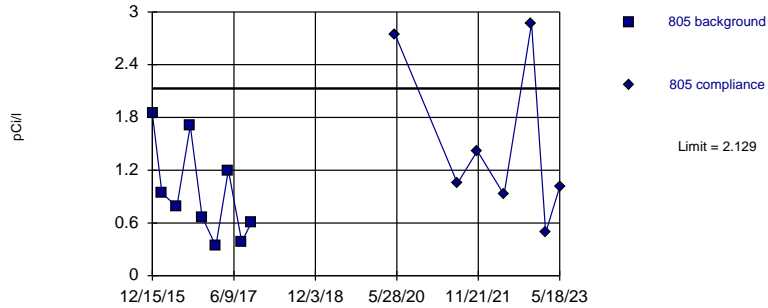
Prediction Limit

Constituent: Radium Combined Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	801	801	802	802	803	803	804	804
12/15/2015					1.11		1.257	
12/16/2015	0.848		2.334					
2/17/2016	0.028		1.075		0.389		1.308	
5/26/2016	1.658		4.222		0.441		4.27	
8/23/2016	0.146		0.287		0.741		1.545	
11/10/2016	0.251		0.144		0.817		1	
2/9/2017	0.17		2.23		0.717		0.749	
5/3/2017	0.582		1.48		0		0.822	
8/1/2017	0.681		0.65		1.73		1.28	
10/4/2017	1.22		0.066		0.826		0.511	
5/18/2020		0.27		1.02		2.26		1.03
7/6/2021		0.374		0.765		0.278		1.12
11/15/2021		0.916		0.786		0.707		0.949
5/12/2022		0.369 (J)		1.29		0.77		0.661
11/11/2022		1.02		0.552		0.543		0.15
2/13/2023		0.683		0.952		0.951		1.83
5/18/2023		0.243 (J)		1.03		0.495 (J)		2.04

Within Limit

Prediction Limit
Intrawell Parametric

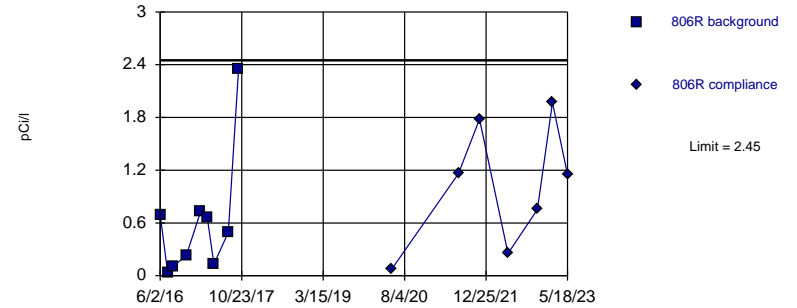


Background Data Summary: Mean=0.9412, Std. Dev.=0.5416, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9047, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Parametric

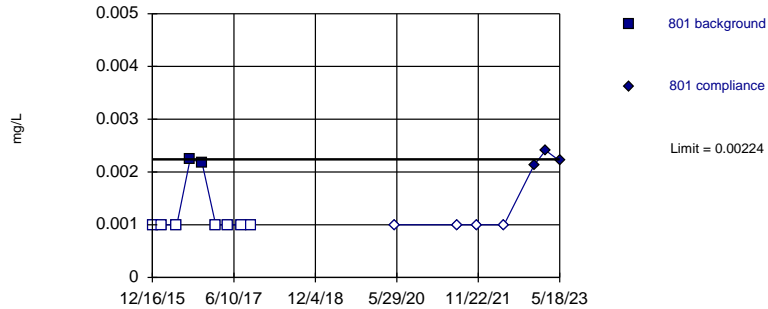


Background Data Summary (based on square root transformation): Mean=0.6773, Std. Dev.=0.4049, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9055, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit
Intrawell Non-parametric

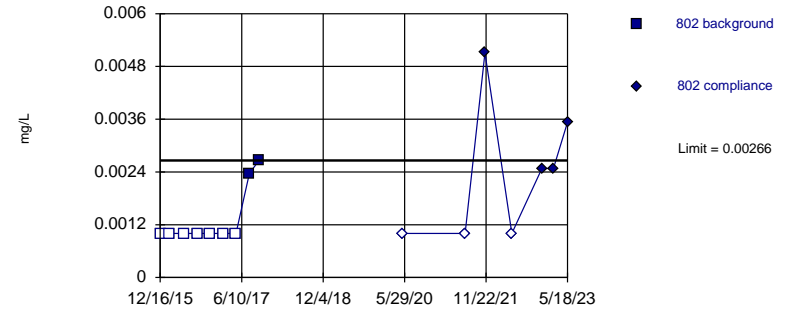


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Exceeds Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

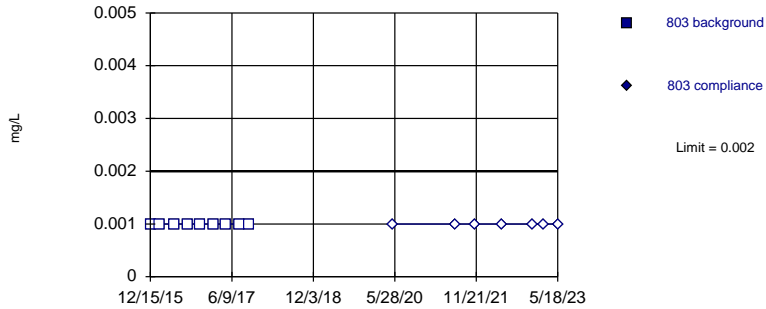
Prediction Limit

Constituent: Radium Combined, Selenium Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	805	805	806R	806R	801	801	802	802
12/15/2015	1.843							
12/16/2015					<0.002		<0.002	
2/17/2016	0.94				<0.002		<0.002	
5/26/2016	0.785				<0.002		<0.002	
6/2/2016			0.695					
7/19/2016			0.034					
8/23/2016	1.705		0.109		0.00224		<0.002	
11/10/2016	0.668				0.00218		<0.002	
11/11/2016			0.228					
2/9/2017	0.338		0.731		<0.002		<0.002	
3/22/2017			0.668					
5/3/2017	1.2		0.131		<0.002		<0.002	
8/1/2017	0.387		0.494		<0.002		0.00237	
10/4/2017	0.605		2.35		<0.002		0.00266	
5/18/2020		2.74		0.078		<0.002		<0.002
7/6/2021		1.05		1.16		<0.002		<0.002
11/15/2021		1.42		1.78		<0.002		0.00511
5/12/2022		0.922		0.253 (J)		<0.002		<0.002
11/11/2022		2.87		0.754				
11/29/2022						0.00213		0.00248
2/13/2023		0.489 (J)		1.97		0.00241		0.00248
5/18/2023		1.01		1.15		0.00221		0.00353

Within Limit

Prediction Limit Intrawell Non-parametric

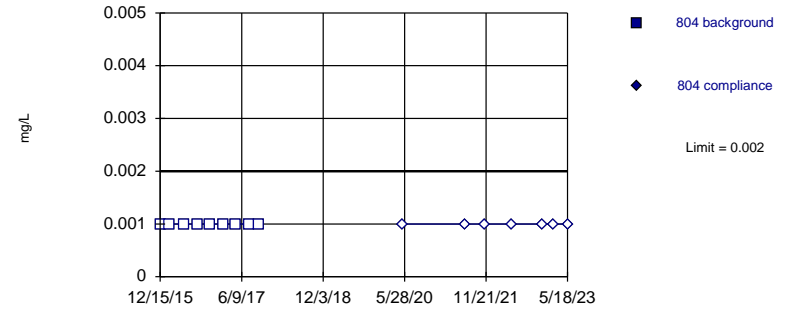


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

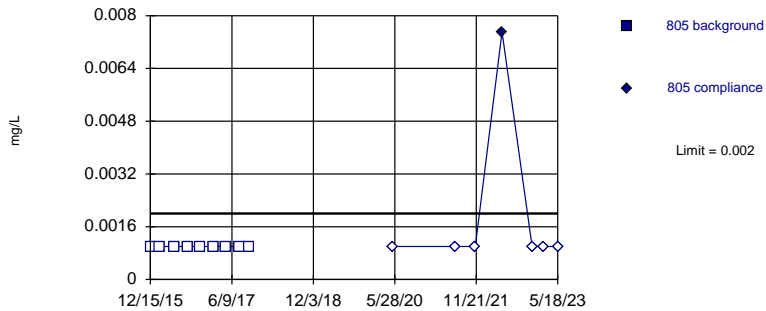


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric

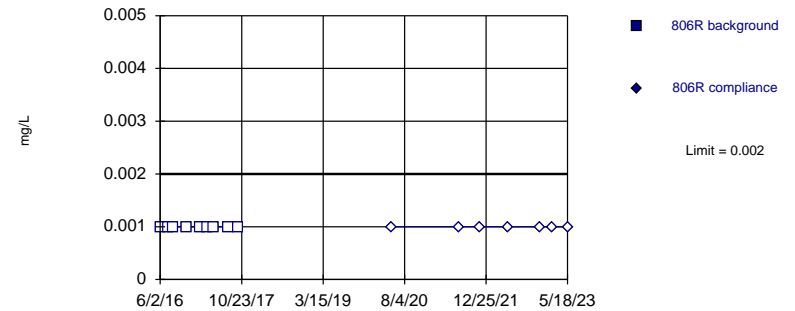


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Within Limit

Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 8/24/2023 4:27 PM View: FAI A4
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

Prediction Limit

Constituent: Selenium Analysis Run 8/24/2023 4:32 PM View: FAI A4
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10

	803	803	804	804	805	805	806R	806R
12/15/2015	<0.002		<0.002		<0.002			
2/17/2016	<0.002		<0.002		<0.002			
5/26/2016	<0.002		<0.002		<0.002			
6/2/2016							<0.002	
7/19/2016							<0.002	
8/23/2016	<0.002		<0.002		<0.002		<0.002	
11/10/2016	<0.002		<0.002		<0.002			
11/11/2016							<0.002	
2/9/2017	<0.002		<0.002		<0.002		<0.002	
3/22/2017							<0.002	
5/3/2017	<0.002		<0.002		<0.002		<0.002	
8/1/2017	<0.002		<0.002		<0.002		<0.002	
10/4/2017	<0.002		<0.002		<0.002		<0.002	
5/18/2020		<0.002		<0.002		<0.002		<0.002
7/6/2021		<0.002		<0.002		<0.002		<0.002
11/15/2021		<0.002		<0.002		<0.002		<0.002
5/12/2022		<0.002		<0.002		0.00751		<0.002
11/29/2022		<0.002		<0.002		<0.002		<0.002
2/13/2023		<0.002		<0.002		<0.002		<0.002
5/18/2023		<0.002		<0.002		<0.002		<0.002

Prediction Limit

Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10 Printed 8/24/2023, 4:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	801	0.002	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	802	0.007646	n/a	5/18/2023	0.001ND	No	9	11.11	x^(1/3)	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	803	0.004999	n/a	5/18/2023	0.00263	No	9	0	No	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	804	0.01078	n/a	5/18/2023	0.00269	No	9	0	No	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	805	0.002	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	806R	0.00776	n/a	5/18/2023	0.00359	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	801	0.146	n/a	5/18/2023	0.137	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	802	0.3056	n/a	5/18/2023	0.178	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	803	0.1509	n/a	5/18/2023	0.126	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	804	0.5223	n/a	5/18/2023	0.518	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	805	0.1854	n/a	5/18/2023	0.148	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	806R	0.1276	n/a	5/18/2023	0.0692	No	9	0	No	0.000...	Param Intra 1 of 3
Cadmium (mg/L)	801	0.001	n/a	5/18/2023	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	802	0.001	n/a	5/18/2023	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	803	0.001	n/a	5/18/2023	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	804	0.001	n/a	5/18/2023	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	805	0.001	n/a	5/18/2023	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	806R	0.001	n/a	5/18/2023	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	801	0.01	n/a	5/18/2023	0.015	Yes	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	802	0.01	n/a	5/18/2023	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	803	0.01	n/a	5/18/2023	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	804	0.01	n/a	5/18/2023	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	805	0.01	n/a	5/18/2023	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	806R	0.01	n/a	5/18/2023	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	801	0.01	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	802	0.01	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	803	0.01	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	804	0.01	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	805	0.01	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	806R	0.01	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Fluoride (mg/L)	801	0.2137	n/a	5/18/2023	0.17	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	802	0.3234	n/a	5/18/2023	0.16	No	9	11.11	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	803	0.319	n/a	5/18/2023	0.293	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	804	0.2441	n/a	5/18/2023	0.247	Yes	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	805	0.2152	n/a	5/18/2023	0.197	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	806R	0.2979	n/a	5/18/2023	0.208	No	9	0	No	0.000...	Param Intra 1 of 3
Lead (mg/L)	801	0.002	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	802	0.0042	n/a	5/18/2023	0.001ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	803	0.00385	n/a	5/18/2023	0.001ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	804	0.00865	n/a	5/18/2023	0.001ND	No	9	66.67	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	805	0.002	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	806R	0.002	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	801	0.03301	n/a	5/18/2023	0.0075ND	No	9	44.44	No	0.000...	Param Intra 1 of 3
Lithium (mg/l)	802	0.0168	n/a	5/18/2023	0.0075ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	803	0.0246	n/a	5/18/2023	0.0075ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	804	0.03616	n/a	5/18/2023	0.0234	No	9	0	ln(x)	0.000...	Param Intra 1 of 3
Lithium (mg/l)	805	0.0153	n/a	5/18/2023	0.0075ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	806R	0.0301	n/a	5/18/2023	0.0199	No	9	0	n/a	0.004675	NP Intra (normality) ...
Mercury (mg/L)	801	0.0002	n/a	5/18/2023	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	802	0.0002	n/a	5/18/2023	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3

Prediction Limit

Sibley Generating Station UWL Client: SCS Engineers Data: Sibley v10 Printed 8/24/2023, 4:32 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Mercury (mg/L)	803	0.0002	n/a	5/18/2023	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	804	0.0002	n/a	5/18/2023	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	805	0.0002	n/a	5/18/2023	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	806R	0.0002	n/a	5/18/2023	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	801	0.005	n/a	5/18/2023	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	802	0.005	n/a	5/18/2023	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	803	0.005	n/a	5/18/2023	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	804	0.005	n/a	5/18/2023	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	805	0.005	n/a	5/18/2023	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	806R	1.395	n/a	7/7/2023	1.33	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	801	1.824	n/a	5/18/2023	0.243J	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	802	4.37	n/a	5/18/2023	1.03	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	803	1.818	n/a	5/18/2023	0.495J	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	804	3.927	n/a	5/18/2023	2.04	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	805	2.129	n/a	5/18/2023	1.01	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	806R	2.45	n/a	5/18/2023	1.15	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Selenium (mg/L)	801	0.00224	n/a	5/18/2023	0.00221	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	802	0.00266	n/a	5/18/2023	0.00353	Yes	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	803	0.002	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	804	0.002	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	805	0.002	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	806R	0.002	n/a	5/18/2023	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3

Sibley Generating Station
Determination of Statistically Significant Increases
Fly Ash Impoundment
September 28, 2023

ATTACHMENT 2

Sanitas™ Configuration Settings

Exclude data flags:

Data Reading Options

- Individual Observations
- Mean of Each: Month
- Median of Each: Season

Automatically Process Resamples...

- Black and White Output
- Four Plots Per Page
 - Always Combine Data Pages...
 - Include Tick Marks on Data Page
- Use Constituent Name for Graph Title
- Draw Border Around Text Reports and Data Pages
- Enlarge/Reduce Fonts (Graphs):
- Enlarge/Reduce Fonts (Data/Text Reports):
- Wide Margins (on reports without explicit setting)
- Use CAS# (Not Const. Name)
- Truncate File Names to Characters
- Include Limit Lines when found in Database...
- Show Deselected Data on Time Series ▾
- Show Deselected Data on all Data Pages ▾

- Prompt to Overwrite/Append Summary Tables
- Round Limits to Sig. Digits (when not set in data file)
- User-Set Scale
- Indicate Background Data
- Show Exact Dates
- Thick Plot Lines

Zoom Factor: ▾

- Output Decimal Precision
- Less Precision
 - Normal Precision
 - More Precision

Store Print Jobs in Multiple Constituent Mode

Printer: ▾

Use Modified Alpha... 0.02

Test Residuals For Normality (Parametric test only) using Shapiro-Wilk/Francia at Alpha = 0.01

Continue Parametric if Unable to Normalize

Transformation (Parametric test only)

- Use Ladder of Powers
- Natural Log or No Transformation
- Never Transform
- Use Specific Transformation:

Use Best W Statistic

Plot Transformed Values

Use Non-Parametric Test (Sen's Slope/Mann-Kendall) when Non-Detects Percent > 75

Include 95. % Confidence Interval around Trend Line

Only when Trend is Significant

Include Details of Interaction with Limit Lines (if applicable, in Multiple Constituent mode)

Automatically Remove Outliers (Parametric test only)

Limit data to most recent values (dropping any earlier observations)

Note: there is no "Always Use Non-Parametric" checkbox on this tab because, for consistency with prior versions, Sen's Slope / Mann-Kendall (the non-parametric alternative) is available as a report in its own right, under Analysis->Intrawell->Trend.

Test for Normality using Shapiro-Wilk/Francia at Alpha = 0.01

Use Non-Parametric Test when Non-Detects Percent > 50

Use Aitchison's Adjustment when Non-Detects Percent > 15

Optional Further Refinement: Use Aitchison's when NDs % > 50

Use Poisson Prediction Limit when Non-Detects Percent > 90

Transformation

Use Ladder of Powers

Natural Log or No Transformation

Never Transform

Use Specific Transformation: Natural Log

Use Best W Statistic

Plot Transformed Values

Deseasonalize (Intra- and InterWell)

If Seasonality Is Detected

If Seasonality Is Detected Or Insufficient to Test

Always (When Sufficient Data) Never

Always Use Non-Parametric

Facility α

Statistical Evaluations per Year: 2

Constituents Analyzed: 15

Downgradient (Compliance) Wells: 6

Sampling Plan

Comparing Individual Observations

1 of 1 1 of 2 1 of 3 1 of 4

2 of 4 ("Modified California")

IntraWell Other

Stop if Background Trend Detected at Alpha = 0.05

Plot Background Data

Override Standard Deviation:

Override DF: Override Kappa:

Automatically Remove Background Outliers

2-Tailed Test Mode...

Show Deselected Data Lighter

Non-Parametric Limit = Highest Background Value

Non-Parametric Limit when 100% Non-Detects:

Highest/Second Highest Background Value

Most Recent PQL if available, or MDL

Most Recent Background Value (subst. method)

Rank Von Neumann, Wilcoxon Rank Sum / Mann-Whitney

- Use Modified Alpha...
- 2-Tailed Test Mode...
- Combine Background Wells on Mann-Whitney...

Outlier Tests

- EPA 1989 Outlier Screening (fixed alpha of 0.05)
- Dixon's at $\alpha=$ or if n > Rosner's at $\alpha=$ Use EPA Screening to establish Suspected Outliers
- Tukey's Outlier Screening, with IQR Multiplier = Use Ladder of Powers to achieve Best W Stat
- Test For Normality at Alpha =
 - Stop if Non-Normal
 - Continue with Parametric Test if Non-Normal
 - Tukey's if Non-Normal, with IQR Multiplier = Use Ladder of Powers to achieve Best W Stat
- No Outlier If Less Than Times Median
- Apply Rules found in Ohio Guidance Document 0715
- Combine Background Wells on the Outlier Report...

Piper, Stiff Diagram

- Combine Wells Label Constituents
- Combine Dates Label Axes
- Use Default Constituent Names Note Cation-Anion Balance (Piper only)
- Use Constituent Definition File

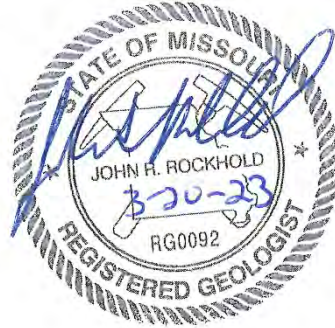
Appendix E.2

Spring 2023 Semiannual and Annual Assessment Monitoring Statistical Analyses

MEMORANDUM

March 20, 2023

To: Sibley Generating Station
 33200 E Johnson Road
 Sibley, Missouri 64088
 Evergy Missouri West, Inc.



From: SCS Engineers
 John Rockhold, P.G.
 Douglas Doerr, P.E.

RE: Determination of Statistically Significant Increases/Levels – Fly Ash Impoundment
 Fall 2022 Semi-Annual Assessment Monitoring 40 CFR 257.95

Statistical analysis of monitoring data from the groundwater monitoring system for the Fly Ash Impoundment at the Sibley Generating Station has been completed in substantial compliance with the “Statistical Method Certification by A Qualified Professional Engineer” dated October 12, 2017. Groundwater samples were collected on November 11 and 29, 2022. Review and validation of the results from the November 2022 Assessment Monitoring Event was completed on December 30, 2022, which constitutes completion and finalization of assessment monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there were statistically significant increases (SSIs) over background values and whether the concentrations were at statistically significant levels (SSLs) above their groundwater protection standard (GWPS) for each constituent listed in Appendix IV to Part 257-Constituents for Assessment Monitoring. One round of verification sampling was conducted for certain constituents on January 11, 2023.

The completed statistical evaluation identified three Appendix IV constituents above their prediction limits and one Appendix IV constituent above its GWPS at an SSL established for specific wells.

Constituent/Monitoring Well	*UPL/**GWPS	Observation November 29, 2022	1st Verification January 11, 2023
Fluoride			
MW-804	0.2441/4	0.262	NA
MW-805	0.2152/4	0.221	NA
Molybdenum			
MW-806R	1.395/1.395	1.50	1.43
Radium Combined			
MW-805	2.129/5	2.87***	NA

*UPL – Upper Prediction Limit
 **GWPS – Groundwater Protection Standard
 *** Sample Date November 11, 2022
 NA – Not Applicable

Determination: A statistical evaluation was completed for the Appendix IV assessment monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified SSIs above the background prediction limit for fluoride in monitoring wells MW-804 and MW-805; molybdenum in monitoring well MW-806R, and radium combined in monitoring well MW-805. However, all of the detected Appendix IV constituent concentrations were below their respective GWPSs with the exception of molybdenum in monitoring well MW-806R. This resulted in an identified SSL for molybdenum in MW-806R.

Attached to this memorandum are the following backup information:

Attachment 1: Sanitas™ Output:

Statistical evaluation output from Sanitas™ for the prediction limit analysis. This includes prediction limit plots, prediction limit background data, detection and assessment sample results, 1st verification re-sample results (when applicable), and a Prediction Limit summary table. Output documentation includes the analytical data used for the statistical analyses.

Attachment 2: Sanitas™ Configuration Settings:

Screen shots of the applicable Sanitas™ configuration settings for the statistical prediction limit analysis. This includes data configuration, output configuration, prediction limit configuration and other tests configuration.

Revision Number	Revision Date	Attachment Revised	Summary of Revisions

Sibley Generating Station
Determination of Statistically Significant Increases
Fly Ash Impoundment
March 20, 2023

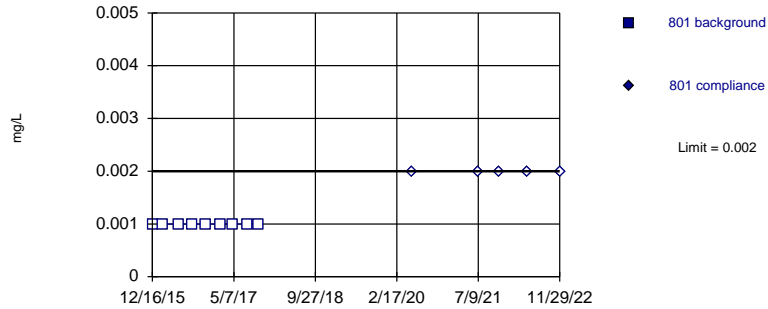
ATTACHMENT 1

Sanitas™ Output

Within Limit

Prediction Limit

Intrawell Non-parametric



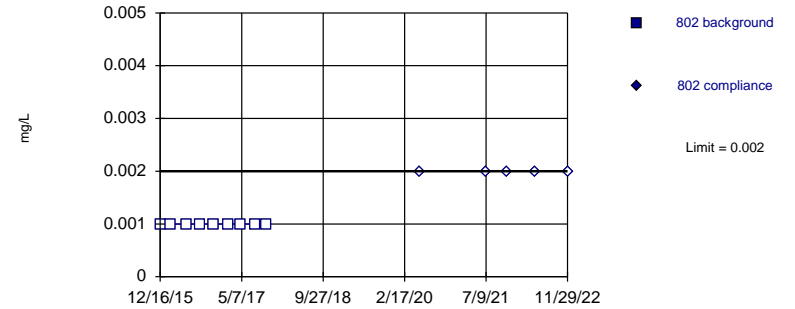
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



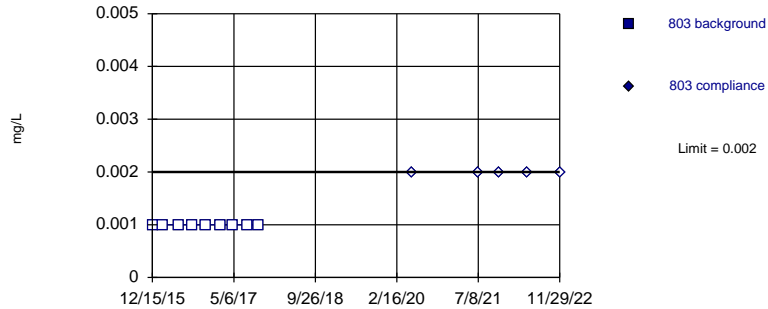
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



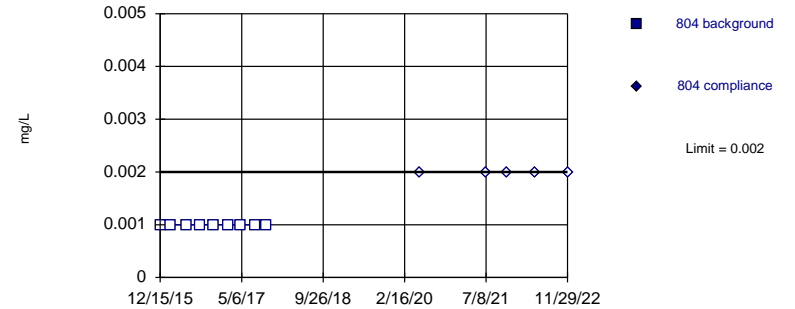
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

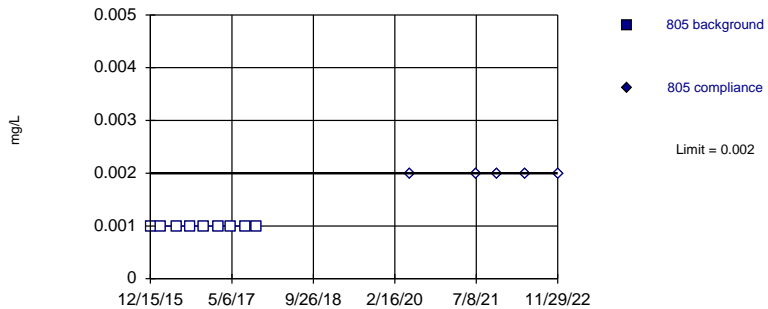
Constituent: Antimony Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	801	801	802	802	803	803	804	804
12/15/2015					<0.002		<0.002	
12/16/2015	<0.002		<0.002					
2/17/2016	<0.002		<0.002		<0.002		<0.002	
5/26/2016	<0.002		<0.002		<0.002		<0.002	
8/23/2016	<0.002		<0.002		<0.002		<0.002	
11/10/2016	<0.002		<0.002		<0.002		<0.002	
2/9/2017	<0.002		<0.002		<0.002		<0.002	
5/3/2017	<0.002		<0.002		<0.002		<0.002	
8/1/2017	<0.002		<0.002		<0.002		<0.002	
10/4/2017	<0.002		<0.002		<0.002		<0.002	
5/18/2020		<0.004		<0.004		<0.004		<0.004
7/6/2021		<0.004		<0.004		<0.004		<0.004
11/15/2021		<0.004		<0.004		<0.004		<0.004
5/12/2022		<0.004		<0.004		<0.004		<0.004
11/29/2022		<0.004		<0.004		<0.004		<0.004

Within Limit

Prediction Limit

Intrawell Non-parametric



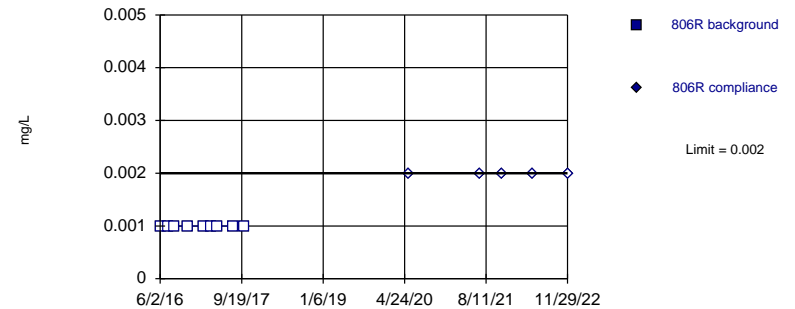
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



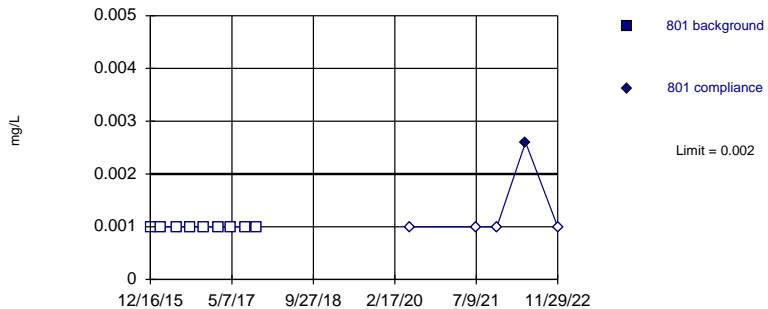
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



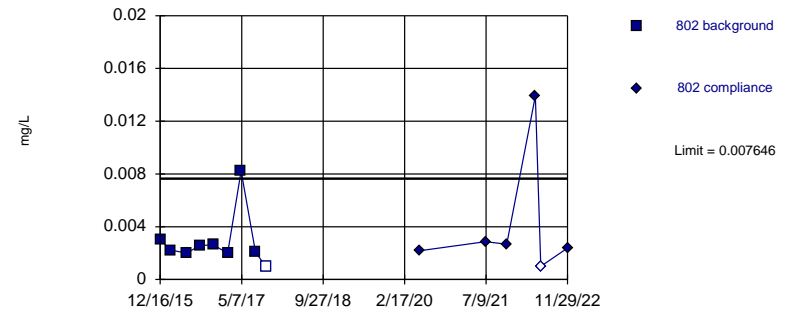
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Arsenic Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=0.1368, Std. Dev.=0.02743, n=9, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7996, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

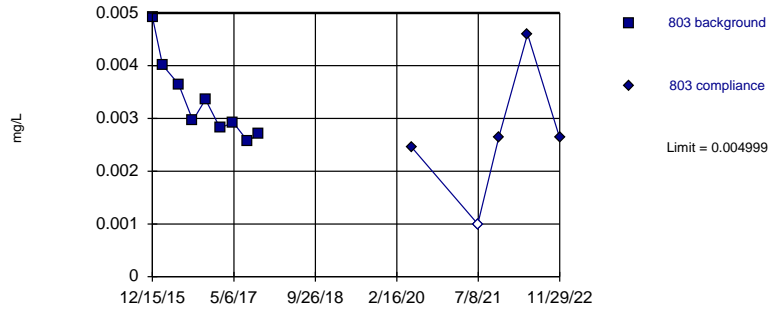
Prediction Limit

Constituent: Antimony, Arsenic Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.002							
12/16/2015					<0.002		0.00304	
2/17/2016	<0.002				<0.002		0.00223	
5/26/2016	<0.002				<0.002		0.002	
6/2/2016			<0.002					
7/19/2016			<0.002					
8/23/2016	<0.002		<0.002		<0.002		0.00257	
11/10/2016	<0.002				<0.002		0.00262	
11/11/2016			<0.002					
2/9/2017	<0.002		<0.002		<0.002		0.002	
3/22/2017			<0.002					
5/3/2017	<0.002		<0.002		<0.002		0.00823	
8/1/2017	<0.002		<0.002		<0.002		0.00206	
10/4/2017	<0.002		<0.002		<0.002		<0.002	
5/18/2020		<0.004		<0.004		<0.002		0.00218
7/6/2021		<0.004		<0.004		<0.002		0.00286
11/15/2021		<0.004		<0.004		<0.002		0.00267
5/12/2022		<0.004		<0.004		0.0026		0.0139
6/15/2022								<0.002
11/29/2022		<0.004		<0.004		<0.002		0.00238

Within Limit

Prediction Limit
Intrawell Parametric

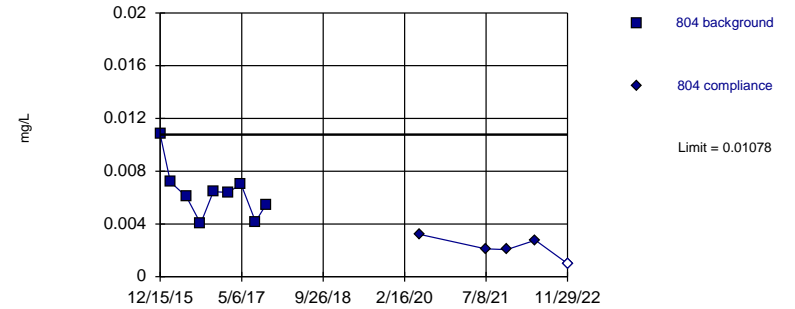


Background Data Summary: Mean=0.003324, Std. Dev.=0.0007636, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8749, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

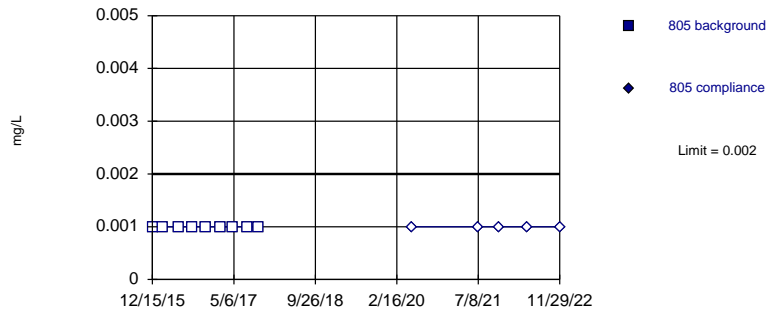


Background Data Summary: Mean=0.006396, Std. Dev.=0.001997, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8818, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

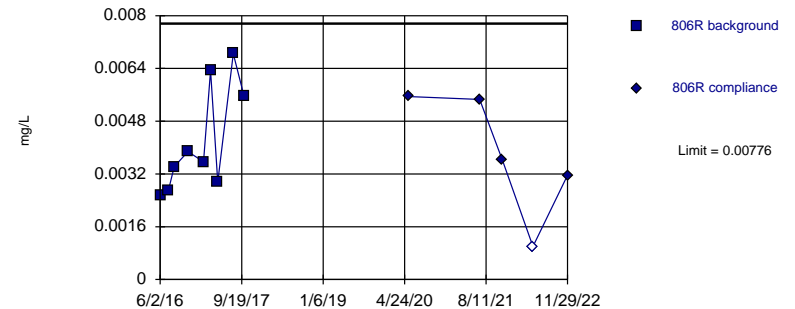


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Arsenic Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.004201, Std. Dev.=0.001623, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8645, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

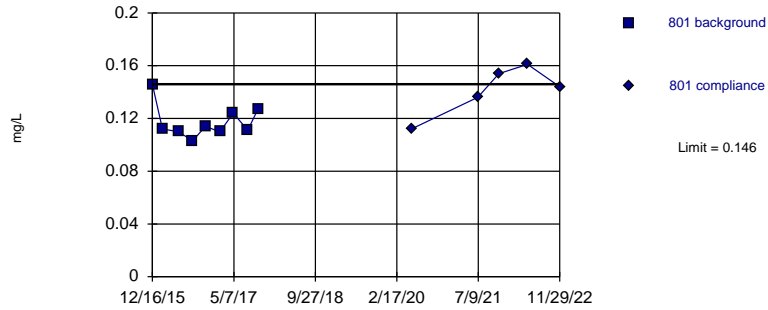
Prediction Limit

Constituent: Arsenic Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	803	803	804	804	805	805	806R	806R
12/15/2015	0.00493		0.0108		<0.002			
2/17/2016	0.00401		0.00719		<0.002			
5/26/2016	0.00365		0.00607		<0.002			
6/2/2016							0.00256	
7/19/2016							0.00269	
8/23/2016	0.00296		0.00403		<0.002		0.00342	
11/10/2016	0.00336		0.00644		<0.002			
11/11/2016							0.00388	
2/9/2017	0.00282		0.0064		<0.002		0.00357	
3/22/2017							0.00634	
5/3/2017	0.00292		0.007		<0.002		0.00295	
8/1/2017	0.00257		0.00418		<0.002		0.00685	
10/4/2017	0.0027		0.00545		<0.002		0.00555	
5/18/2020		0.00246		0.00322		<0.002		0.00555
7/6/2021		<0.002		0.00211		<0.002		0.00546
11/15/2021		0.00265		0.00205		<0.002		0.00362
5/12/2022		0.0046		0.00277		<0.002		<0.002
11/29/2022		0.00263		<0.002		<0.002		0.00316

Within Limit

Prediction Limit
Intrawell Parametric

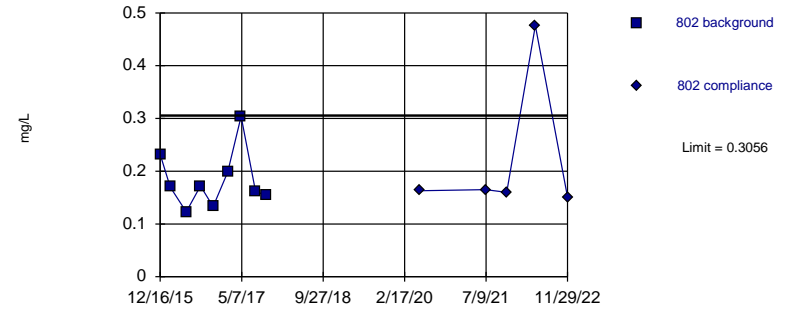


Background Data Summary: Mean=0.1174, Std. Dev.=0.013, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8491, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

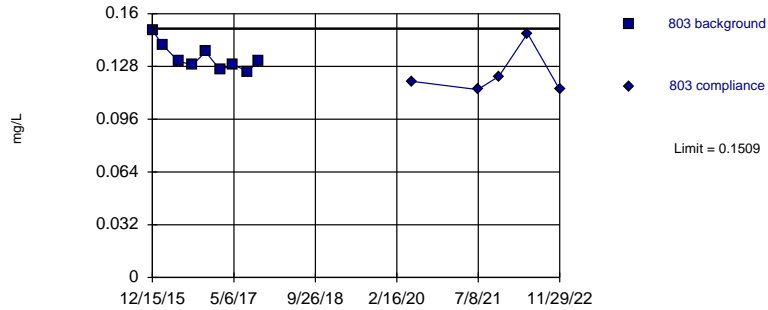


Background Data Summary: Mean=0.1831, Std. Dev.=0.05583, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8822, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

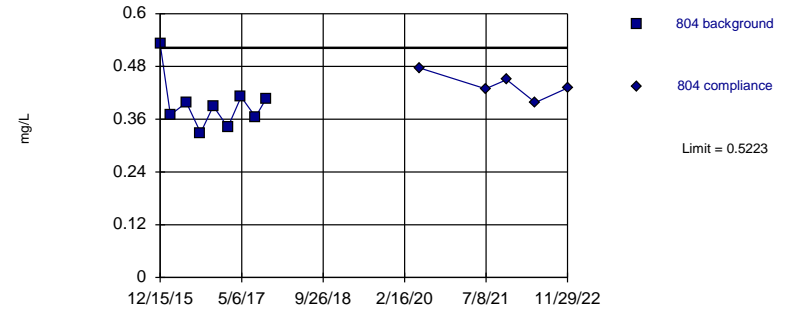


Background Data Summary: Mean=0.1332, Std. Dev.=0.008074, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8745, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.3936, Std. Dev.=0.05871, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8386, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

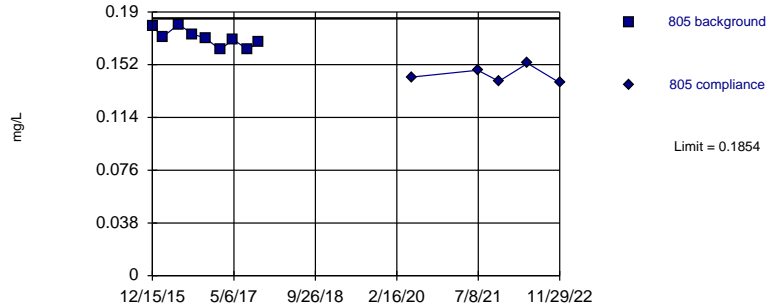
Prediction Limit

Constituent: Barium Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	801	801	802	802	803	803	804	804
12/15/2015					0.15		0.531	
12/16/2015	0.146		0.232					
2/17/2016	0.112		0.17		0.141		0.37	
5/26/2016	0.11		0.123		0.131		0.398	
8/23/2016	0.103		0.172		0.129		0.329	
11/10/2016	0.114		0.133		0.137		0.39	
2/9/2017	0.11		0.198		0.126		0.342	
5/3/2017	0.124		0.304		0.129		0.411	
8/1/2017	0.111		0.162		0.125		0.365	
10/4/2017	0.127		0.154		0.131		0.406	
5/18/2020		0.112		0.163		0.119		0.477
7/6/2021		0.136		0.165		0.114		0.429
11/15/2021		0.154		0.16		0.122		0.45
5/12/2022		0.161		0.476		0.148		0.398
11/29/2022		0.144		0.151		0.114		0.431

Within Limit

Prediction Limit Intrawell Parametric

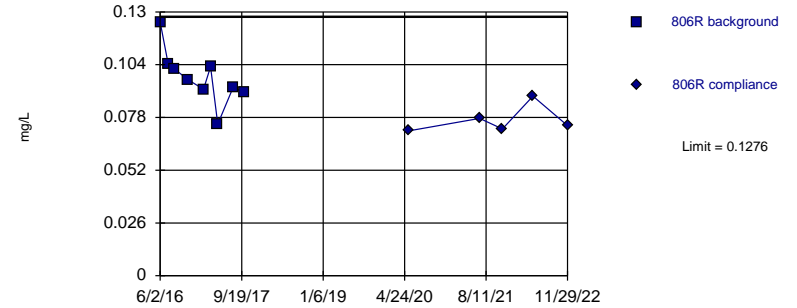


Background Data Summary: Mean=0.1713, Std. Dev.=0.006403, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9324, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric

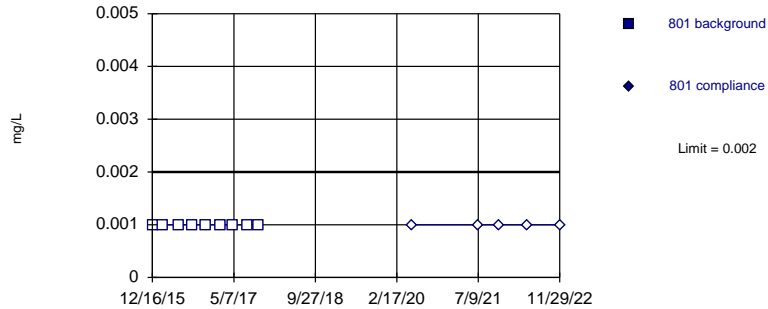


Background Data Summary: Mean=0.09781, Std. Dev.=0.01358, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9367, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 3/14/2023 4:22 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

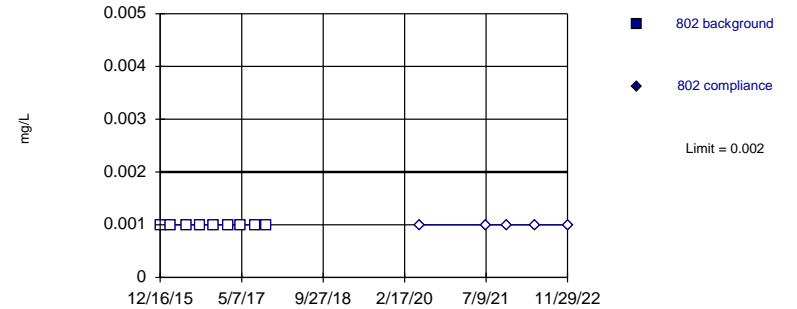


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

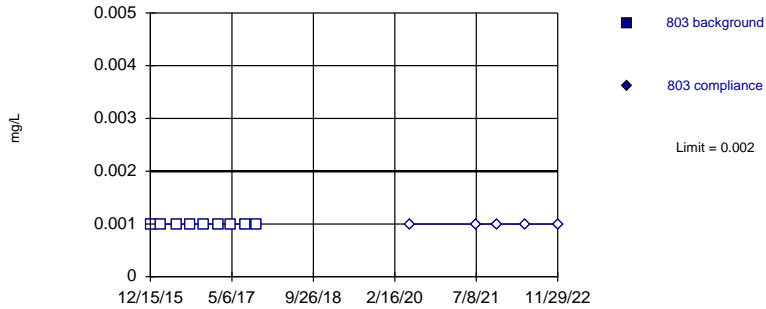
Constituent: Barium, Beryllium Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	805	805	806R	806R	801	801	802	802
12/15/2015	0.18							
12/16/2015					<0.002		<0.002	
2/17/2016	0.172				<0.002		<0.002	
5/26/2016	0.181				<0.002		<0.002	
6/2/2016			0.125					
7/19/2016			0.104					
8/23/2016	0.174		0.102		<0.002		<0.002	
11/10/2016	0.171				<0.002		<0.002	
11/11/2016			0.0966					
2/9/2017	0.163		0.0919		<0.002		<0.002	
3/22/2017			0.103					
5/3/2017	0.17		0.0747		<0.002		<0.002	
8/1/2017	0.163		0.093		<0.002		<0.002	
10/4/2017	0.168		0.0901		<0.002		<0.002	
5/18/2020		0.143		0.0714		<0.002		<0.002
7/6/2021		0.148		0.0775		<0.002		<0.002
11/15/2021		0.14		0.0723		<0.002		<0.002
5/12/2022		0.153		0.0885		<0.002		<0.002
11/29/2022		0.139		0.074		<0.002		<0.002

Within Limit

Prediction Limit

Intrawell Non-parametric



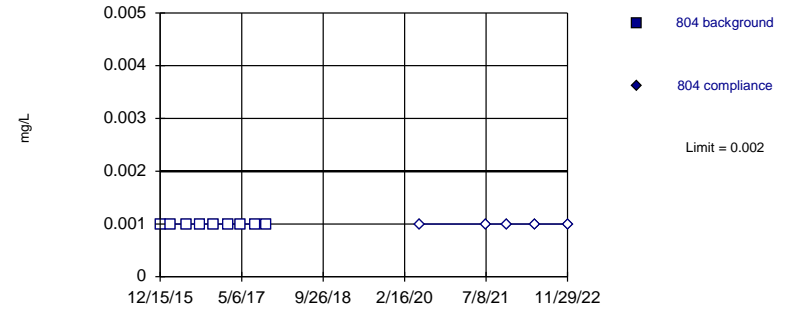
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



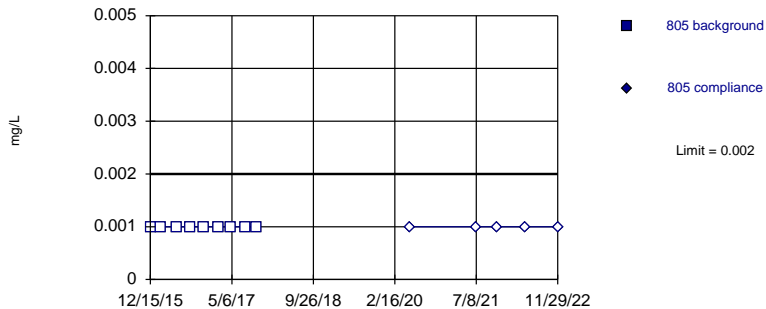
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



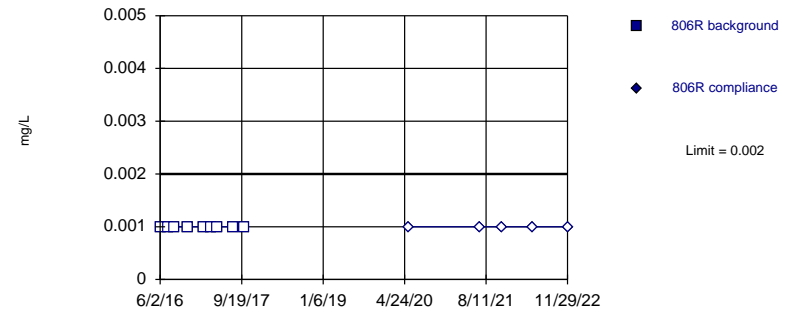
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

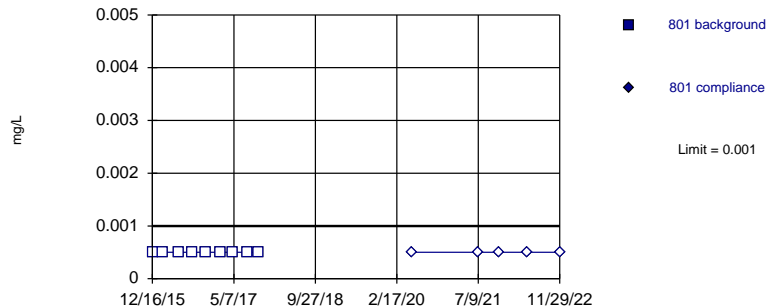
Constituent: Beryllium Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	803	803	804	804	805	805	806R	806R
12/15/2015	<0.002		<0.002		<0.002			
2/17/2016	<0.002		<0.002		<0.002			
5/26/2016	<0.002		<0.002		<0.002			
6/2/2016							<0.002	
7/19/2016							<0.002	
8/23/2016	<0.002		<0.002		<0.002		<0.002	
11/10/2016	<0.002		<0.002		<0.002			
11/11/2016							<0.002	
2/9/2017	<0.002		<0.002		<0.002		<0.002	
3/22/2017							<0.002	
5/3/2017	<0.002		<0.002		<0.002		<0.002	
8/1/2017	<0.002		<0.002		<0.002		<0.002	
10/4/2017	<0.002		<0.002		<0.002		<0.002	
5/18/2020		<0.002		<0.002		<0.002		<0.002
7/6/2021		<0.002		<0.002		<0.002		<0.002
11/15/2021		<0.002		<0.002		<0.002		<0.002
5/12/2022		<0.002		<0.002		<0.002		<0.002
11/29/2022		<0.002		<0.002		<0.002		<0.002

Within Limit

Prediction Limit

Intrawell Non-parametric



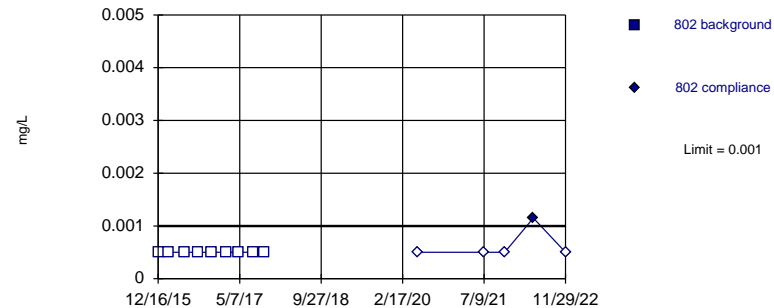
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



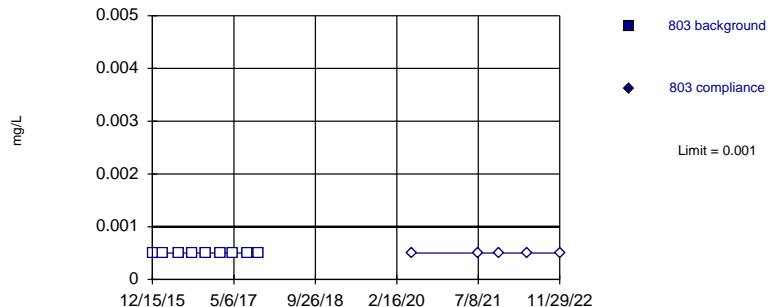
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



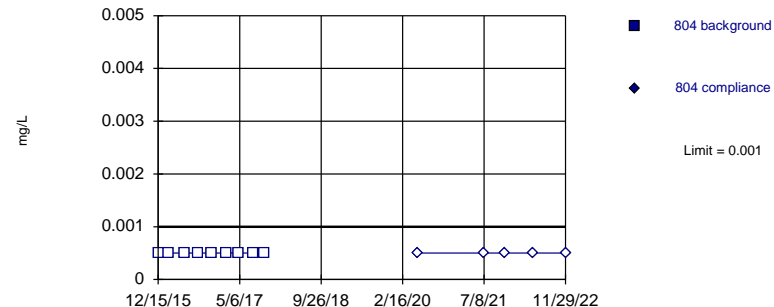
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

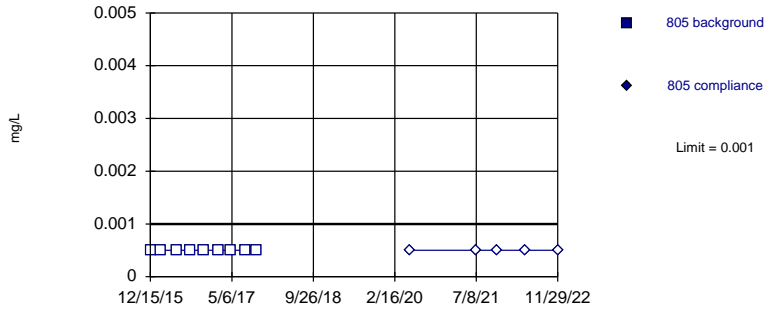
Constituent: Cadmium Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	801	801	802	802	803	803	804	804
12/15/2015					<0.001		<0.001	
12/16/2015	<0.001		<0.001					
2/17/2016	<0.001		<0.001		<0.001		<0.001	
5/26/2016	<0.001		<0.001		<0.001		<0.001	
8/23/2016	<0.001		<0.001		<0.001		<0.001	
11/10/2016	<0.001		<0.001		<0.001		<0.001	
2/9/2017	<0.001		<0.001		<0.001		<0.001	
5/3/2017	<0.001		<0.001		<0.001		<0.001	
8/1/2017	<0.001		<0.001		<0.001		<0.001	
10/4/2017	<0.001		<0.001		<0.001		<0.001	
5/18/2020		<0.001		<0.001		<0.001		<0.001
7/6/2021		<0.001		<0.001		<0.001		<0.001
11/15/2021		<0.001		<0.001		<0.001		<0.001
5/12/2022		<0.001		0.00115		<0.001		<0.001
11/29/2022		<0.001		<0.001		<0.001		<0.001

Within Limit

Prediction Limit

Intrawell Non-parametric



Prediction Limit

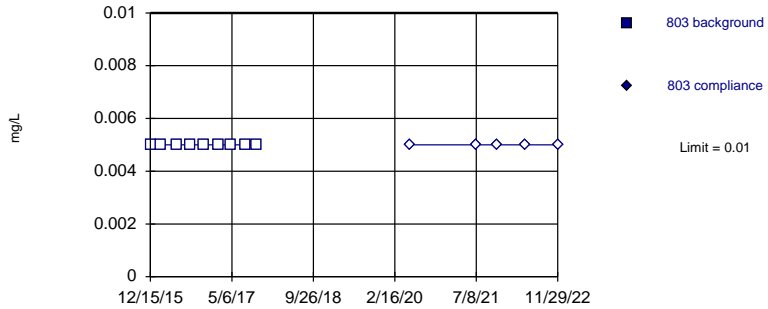
Constituent: Cadmium, Chromium Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.001							
12/16/2015					<0.01		<0.01	
2/17/2016	<0.001				<0.01		<0.01	
5/26/2016	<0.001				<0.01		<0.01	
6/2/2016			<0.001					
7/19/2016			<0.001					
8/23/2016	<0.001		<0.001		<0.01		<0.01	
11/10/2016	<0.001				<0.01		<0.01	
11/11/2016			<0.001					
2/9/2017	<0.001		<0.001		<0.01		<0.01	
3/22/2017			<0.001					
5/3/2017	<0.001		<0.001		<0.01		<0.01	
8/1/2017	<0.001		<0.001		<0.01		<0.01	
10/4/2017	<0.001		<0.001		<0.01		<0.01	
5/18/2020		<0.001		<0.001		<0.01		<0.01
7/6/2021		<0.001		<0.001		<0.01		<0.01
11/15/2021		<0.001		<0.001		<0.01		<0.01
5/12/2022		<0.001		<0.001		<0.01		0.0109
11/29/2022		<0.001		<0.001		<0.01		<0.01

Within Limit

Prediction Limit

Intrawell Non-parametric



Prediction Limit

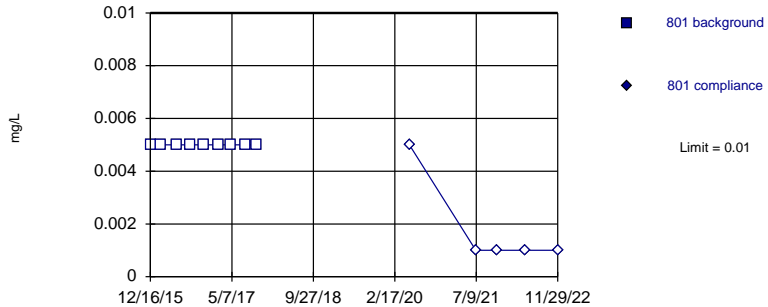
Constituent: Chromium Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	803	803	804	804	805	805	806R	806R
12/15/2015	<0.01		<0.01		<0.01			
2/17/2016	<0.01		<0.01		<0.01			
5/26/2016	<0.01		<0.01		<0.01			
6/2/2016							<0.01	
7/19/2016							<0.01	
8/23/2016	<0.01		<0.01		<0.01		<0.01	
11/10/2016	<0.01		<0.01		<0.01			
11/11/2016							<0.01	
2/9/2017	<0.01		<0.01		<0.01		<0.01	
3/22/2017							<0.01	
5/3/2017	<0.01		<0.01		<0.01		<0.01	
8/1/2017	<0.01		<0.01		<0.01		<0.01	
10/4/2017	<0.01		<0.01		<0.01		<0.01	
5/18/2020		<0.01		<0.01		<0.01		<0.01
7/6/2021		<0.01		<0.01		<0.01		<0.01
11/15/2021		<0.01		<0.01		<0.01		<0.01
5/12/2022		<0.01		<0.01		<0.01		<0.01
11/29/2022		<0.01		<0.01		<0.01		<0.01

Within Limit

Prediction Limit

Intrawell Non-parametric



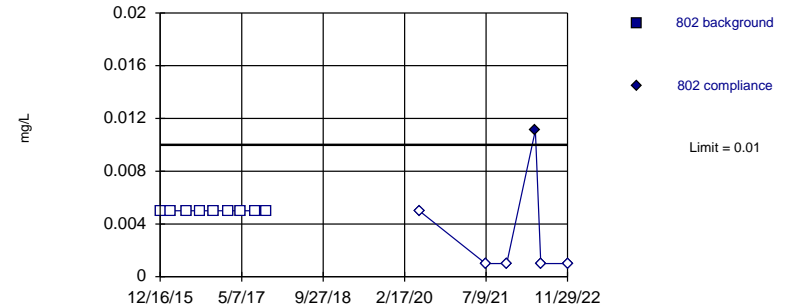
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



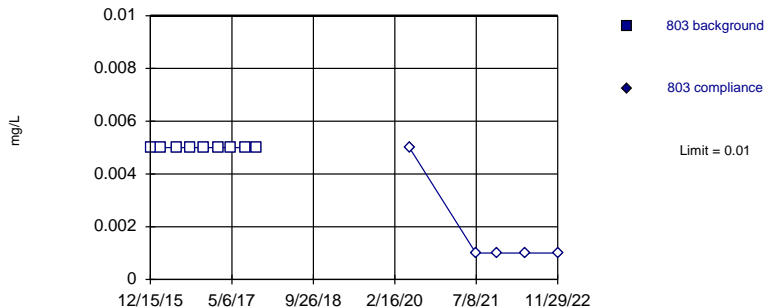
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



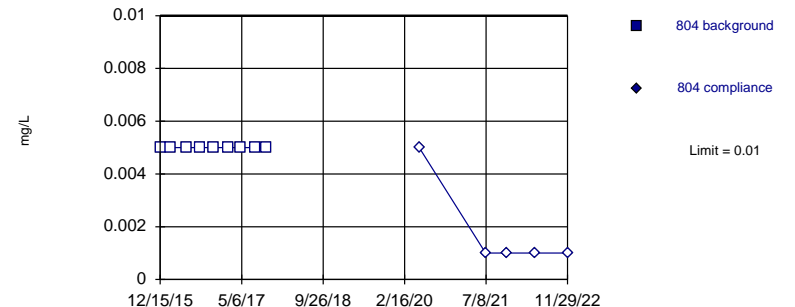
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

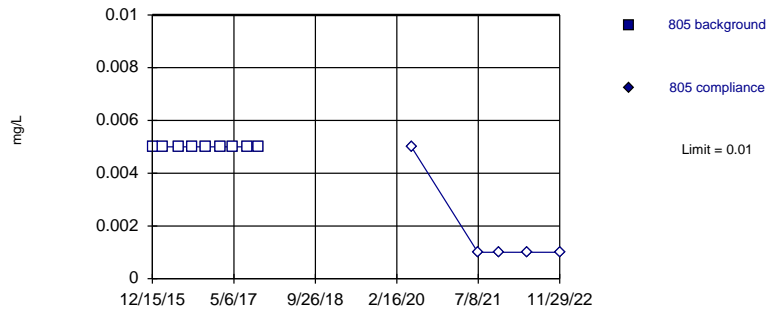
Constituent: Cobalt Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	801	801	802	802	803	803	804	804
12/15/2015					<0.01		<0.01	
12/16/2015	<0.01		<0.01					
2/17/2016	<0.01		<0.01		<0.01		<0.01	
5/26/2016	<0.01		<0.01		<0.01		<0.01	
8/23/2016	<0.01		<0.01		<0.01		<0.01	
11/10/2016	<0.01		<0.01		<0.01		<0.01	
2/9/2017	<0.01		<0.01		<0.01		<0.01	
5/3/2017	<0.01		<0.01		<0.01		<0.01	
8/1/2017	<0.01		<0.01		<0.01		<0.01	
10/4/2017	<0.01		<0.01		<0.01		<0.01	
5/18/2020		<0.01		<0.01		<0.01		<0.01
7/6/2021		<0.002		<0.002		<0.002		<0.002
11/15/2021		<0.002		<0.002		<0.002		<0.002
5/12/2022		<0.002		0.0111		<0.002		<0.002
6/15/2022				<0.002				
11/29/2022		<0.002		<0.002		<0.002		<0.002

Within Limit

Prediction Limit

Intrawell Non-parametric



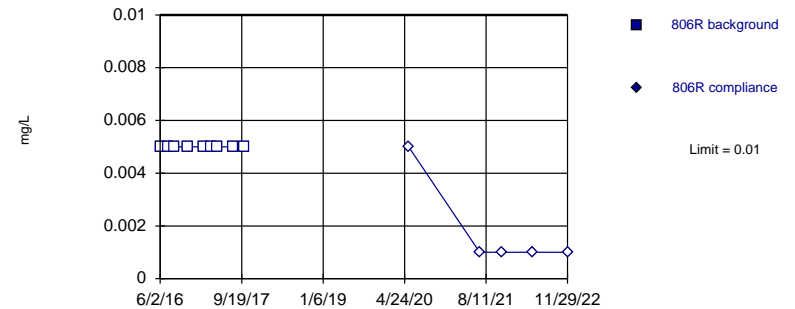
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



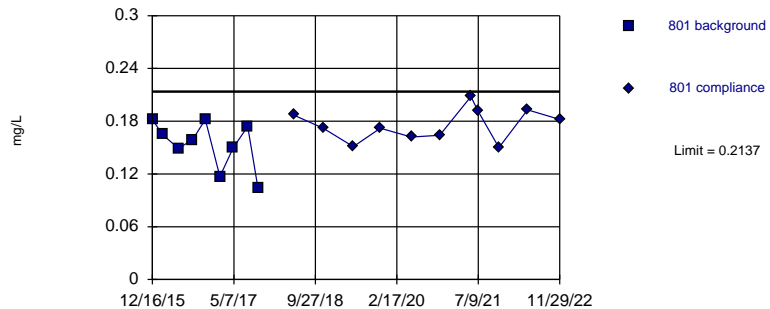
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Parametric



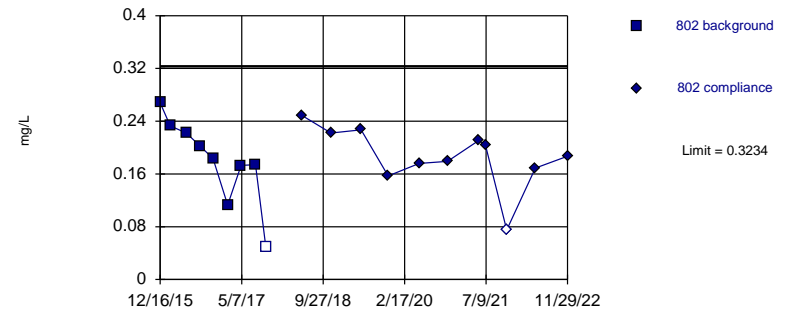
Background Data Summary: Mean=0.1536, Std. Dev.=0.02744, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.894, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1798, Std. Dev.=0.06546, n=9, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9411, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

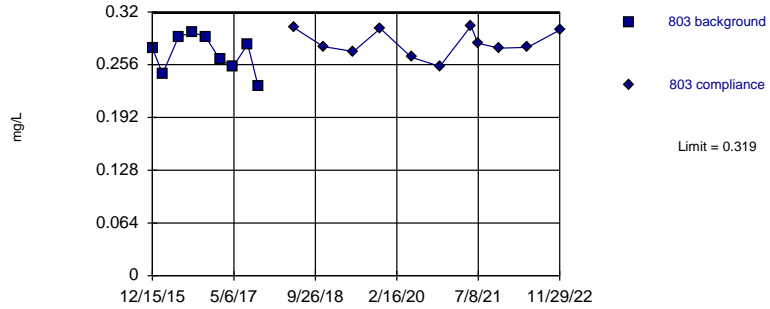
Prediction Limit

Constituent: Cobalt, Fluoride Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.01							
12/16/2015					0.182		0.268	
2/17/2016	<0.01				0.165		0.233	
5/26/2016	<0.01				0.149		0.222	
6/2/2016			<0.01					
7/19/2016			<0.01					
8/23/2016	<0.01		<0.01		0.159		0.202	
11/10/2016	<0.01				0.182		0.183	
11/11/2016			<0.01					
2/9/2017	<0.01		<0.01		0.117		0.113	
3/22/2017			<0.01					
5/3/2017	<0.01		<0.01		0.15		0.173	
8/1/2017	<0.01		<0.01		0.174		0.174	
10/4/2017	<0.01		<0.01		0.104		<0.1	
5/16/2018						0.187		0.249
11/15/2018						0.172		0.222
5/22/2019						0.151		0.227
11/6/2019						0.172		0.157
5/18/2020		<0.01		<0.01		0.162		0.176
11/11/2020						0.164		0.179
5/24/2021						0.208		
5/25/2021								0.211
7/6/2021		<0.002		<0.002		0.192		0.203
11/15/2021		<0.002		<0.002		0.15		<0.15
5/12/2022		<0.002		<0.002		0.193		0.169
11/29/2022		<0.002		<0.002		0.182		0.187

Within Limit

Prediction Limit Intrawell Parametric

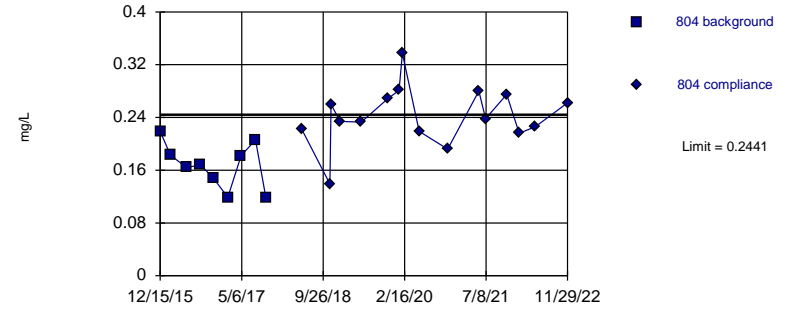


Background Data Summary: Mean=0.2692, Std. Dev.=0.0227, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9261, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Exceeds Limit

Prediction Limit Intrawell Parametric

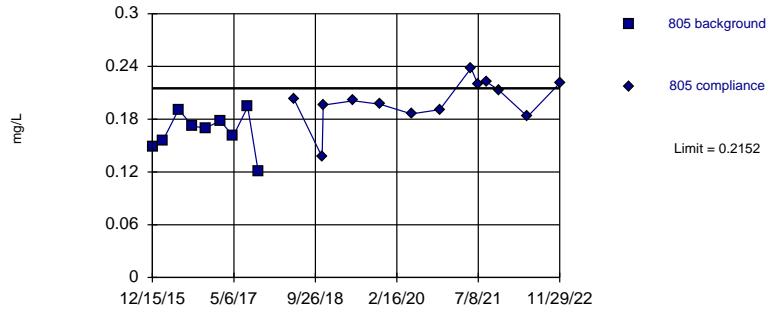


Background Data Summary: Mean=0.1674, Std. Dev.=0.03496, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9484, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Exceeds Limit

Prediction Limit Intrawell Parametric

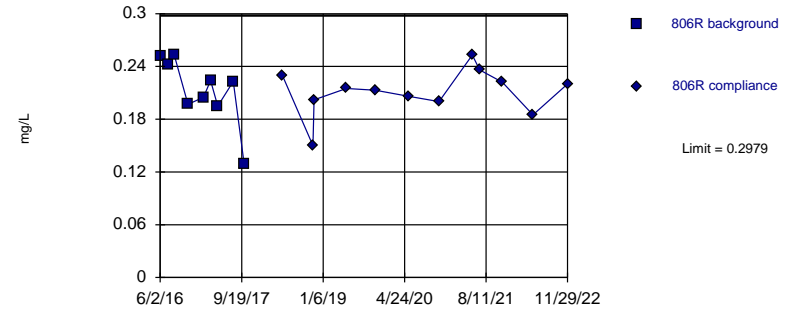


Background Data Summary: Mean=0.1656, Std. Dev.=0.02263, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9537, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=0.2133, Std. Dev.=0.03854, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8789, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

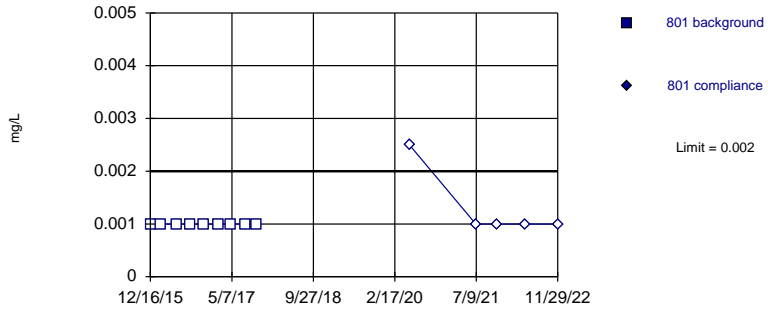
Constituent: Fluoride Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	803	803	804	804	805	805	806R	806R
12/15/2015	0.276		0.219		0.148			
2/17/2016	0.245		0.183		0.155			
5/26/2016	0.29		0.164		0.191			
6/2/2016							0.252	
7/19/2016							0.242	
8/23/2016	0.295		0.168		0.172		0.253	
11/10/2016	0.29		0.148		0.17			
11/11/2016							0.197	
2/9/2017	0.262		0.119		0.178		0.205	
3/22/2017							0.224	
5/3/2017	0.254		0.182		0.161		0.195	
8/1/2017	0.281		0.206		0.194		0.223	
10/4/2017	0.23		0.118		0.121		0.129	
5/16/2018		0.301		0.222		0.203		0.229
11/8/2018				0.139		0.137		0.15
11/15/2018		0.278		0.26		0.196		0.202
1/11/2019				0.234				
5/22/2019		0.272		0.233		0.201		0.215
11/6/2019		0.3		0.269		0.197		0.213
1/13/2020				0.281				
2/3/2020				0.337				
5/18/2020		0.265		0.219		0.186		0.206
11/11/2020		0.254		0.192		0.191		0.2
5/24/2021								0.253
5/25/2021		0.303		0.28		0.238		
7/6/2021		0.282		0.238		0.22		0.236
9/2/2021						0.222		
11/15/2021		0.276		0.275		0.213		0.222
1/31/2022				0.216				
5/12/2022		0.277		0.226		0.183		0.185
11/29/2022		0.298		0.262		0.221		0.22

Within Limit

Prediction Limit

Intrawell Non-parametric



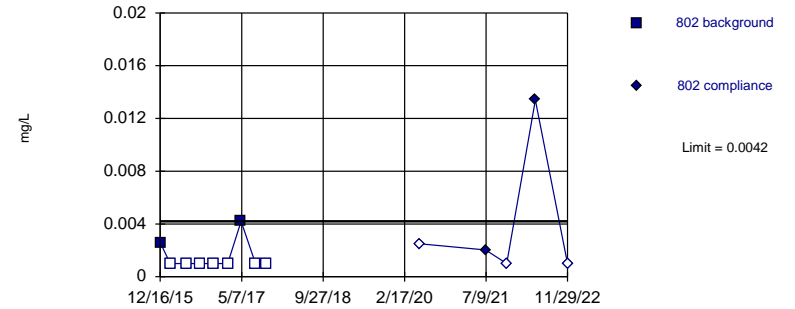
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



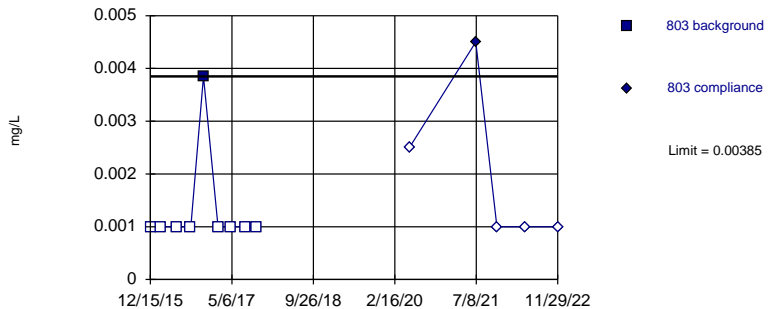
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



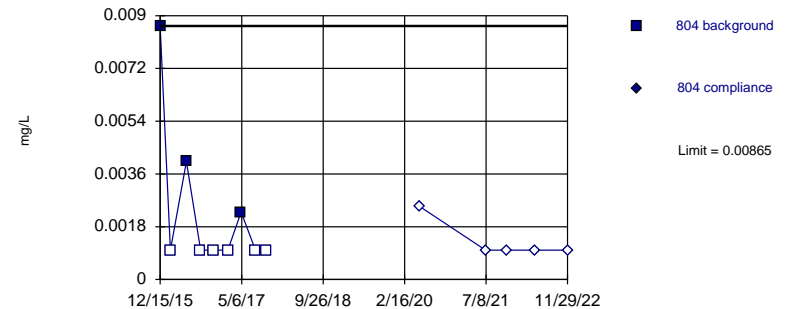
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

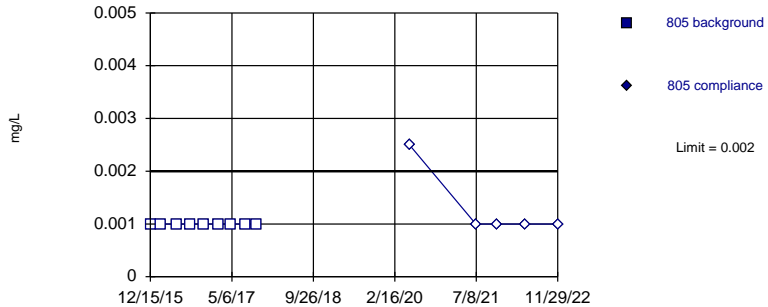
Constituent: Lead Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	801	801	802	802	803	803	804	804
12/15/2015					<0.002		0.00865	
12/16/2015	<0.002		0.0026					
2/17/2016	<0.002		<0.002		<0.002		<0.002	
5/26/2016	<0.002		<0.002		<0.002		0.00402	
8/23/2016	<0.002		<0.002		<0.002		<0.002	
11/10/2016	<0.002		<0.002		0.00385		<0.002	
2/9/2017	<0.002		<0.002		<0.002		<0.002	
5/3/2017	<0.002		0.0042		<0.002		0.0023	
8/1/2017	<0.002		<0.002		<0.002		<0.002	
10/4/2017	<0.002		<0.002		<0.002		<0.002	
5/18/2020		<0.005		<0.005		<0.005		<0.005
7/6/2021		<0.002		0.00203		0.0045		<0.002
11/15/2021		<0.002		<0.002		<0.002		<0.002
5/12/2022		<0.002		0.0134		<0.002		<0.002
11/29/2022		<0.002		<0.002		<0.002		<0.002

Within Limit

Prediction Limit

Intrawell Non-parametric



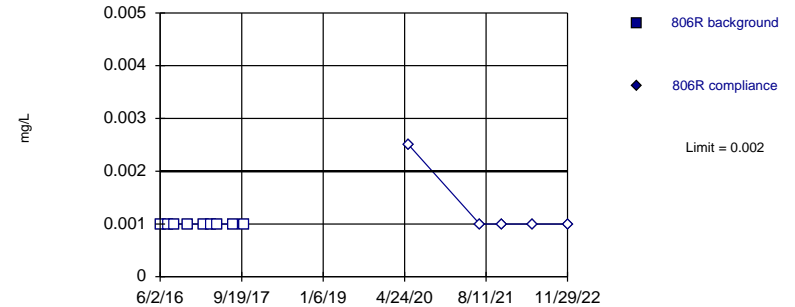
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



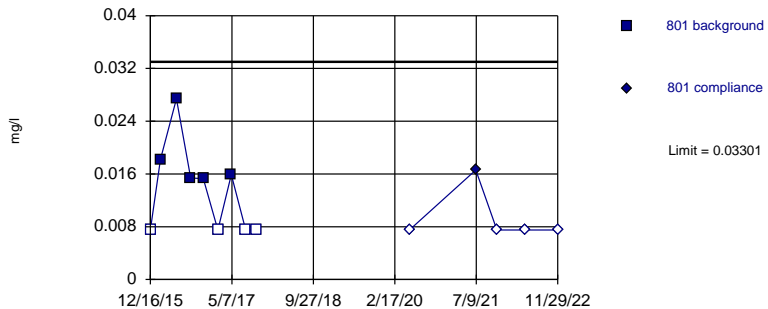
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Parametric



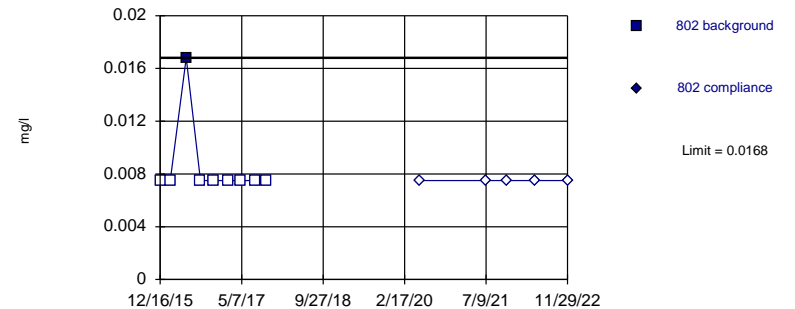
Background Data Summary (after Aitchison's Adjustment): Mean=0.01024, Std. Dev.=0.01038, n=9, 44.44% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8326, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Lithium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Lead, Lithium Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.002							
12/16/2015					<0.015		<0.015	
2/17/2016	<0.002				0.0182		<0.015	
5/26/2016	<0.002				0.0274		0.0168	
6/2/2016			<0.002					
7/19/2016			<0.002					
8/23/2016	<0.002		<0.002		0.0154		<0.015	
11/10/2016	<0.002				0.0153		<0.015	
11/11/2016			<0.002					
2/9/2017	<0.002		<0.002		<0.015		<0.015	
3/22/2017			<0.002					
5/3/2017	<0.002		<0.002		0.0159		<0.015	
8/1/2017	<0.002		<0.002		<0.015		<0.015	
10/4/2017	<0.002		<0.002		<0.015		<0.015	
5/18/2020		<0.005		<0.005		<0.015		<0.015
7/6/2021		<0.002		<0.002		0.0166		<0.015
11/15/2021		<0.002		<0.002		<0.015		<0.015
5/12/2022		<0.002		<0.002		<0.015		<0.015
11/29/2022		<0.002		<0.002		<0.015		<0.015

Prediction Limit

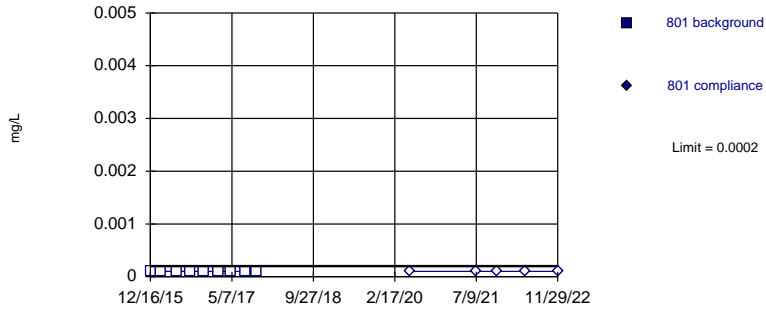
Constituent: Lithium Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	803	803	804	804	805	805	806R	806R
12/15/2015	<0.015		0.0218		<0.015			
2/17/2016	0.0197		0.0257		<0.015			
5/26/2016	0.0246		0.0379		0.0153			
6/2/2016							0.0301	
7/19/2016							0.017	
8/23/2016	<0.015		0.0234		<0.015		0.0181	
11/10/2016	<0.015		0.0195		<0.015			
11/11/2016							0.0154	
2/9/2017	<0.015		0.0204		<0.015		0.018	
3/22/2017							0.0184	
5/3/2017	<0.015		0.021		<0.015		0.0163	
8/1/2017	<0.015		0.0232		<0.015		0.0175	
10/4/2017	<0.015		0.022		<0.015		0.0182	
5/18/2020		<0.015		0.021		<0.015		0.0163
7/6/2021		0.015		0.0228		<0.015		0.0176
11/15/2021		<0.015		0.0196		<0.015		<0.015
5/12/2022		<0.015		0.0214		<0.015		0.0177
11/29/2022		0.0172		0.0231		<0.015		0.0201

Within Limit

Prediction Limit

Intrawell Non-parametric



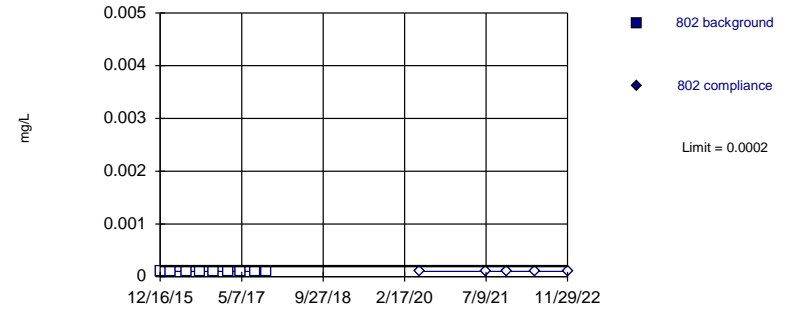
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



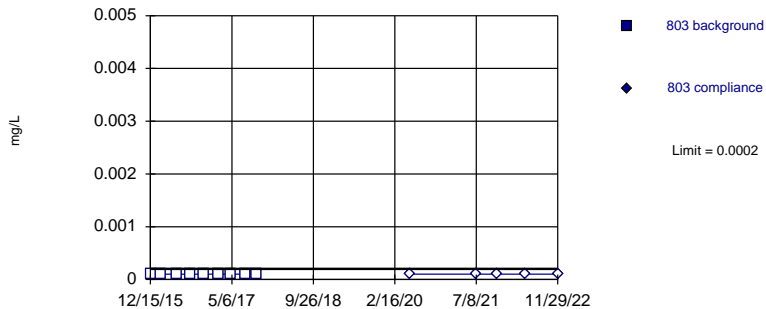
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



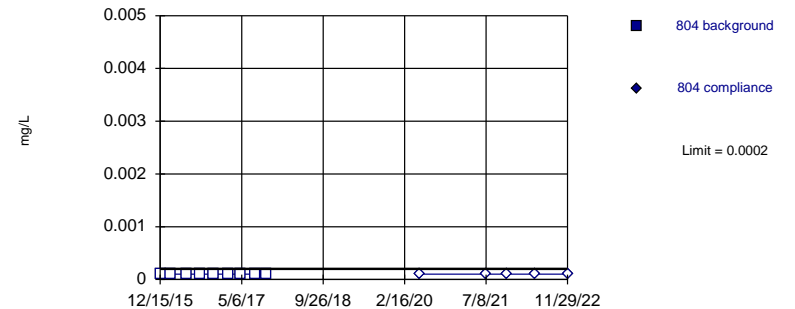
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

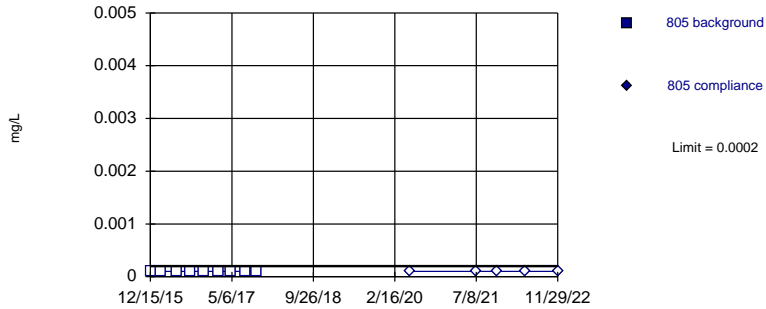
Constituent: Mercury Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	801	801	802	802	803	803	804	804
12/15/2015					<0.0002		<0.0002	
12/16/2015	<0.0002		<0.0002					
2/17/2016	<0.0002		<0.0002		<0.0002		<0.0002	
5/26/2016	<0.0002		<0.0002		<0.0002		<0.0002	
8/23/2016	<0.0002		<0.0002		<0.0002		<0.0002	
11/10/2016	<0.0002		<0.0002		<0.0002		<0.0002	
2/9/2017	<0.0002		<0.0002		<0.0002		<0.0002	
5/3/2017	<0.0002		<0.0002		<0.0002		<0.0002	
8/1/2017	<0.0002		<0.0002		<0.0002		<0.0002	
10/4/2017	<0.0002		<0.0002		<0.0002		<0.0002	
5/18/2020		<0.0002		<0.0002		<0.0002		<0.0002
7/6/2021		<0.0002		<0.0002		<0.0002		<0.0002
11/15/2021		<0.0002		<0.0002		<0.0002		<0.0002
5/12/2022		<0.0002		<0.0002		<0.0002		<0.0002
11/29/2022		<0.0002		<0.0002		<0.0002		<0.0002

Within Limit

Prediction Limit

Intrawell Non-parametric



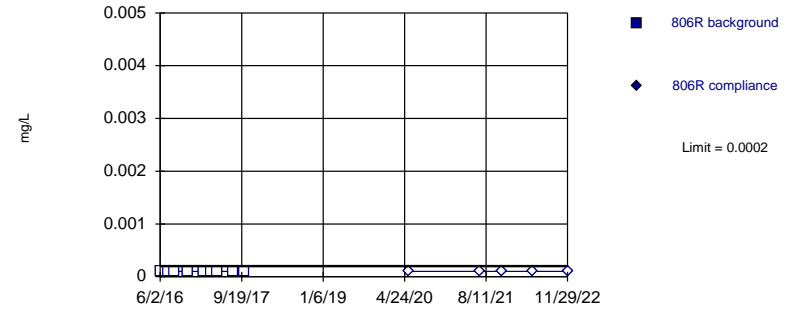
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



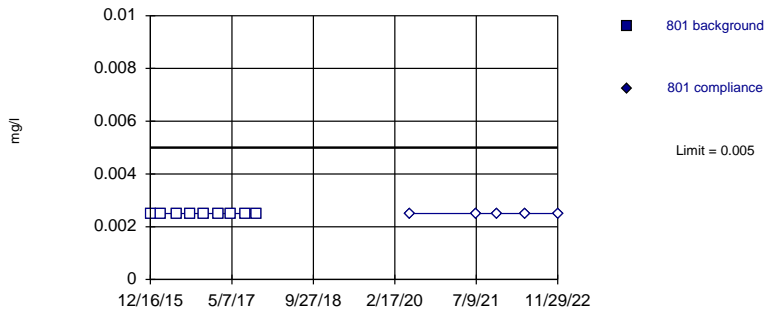
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



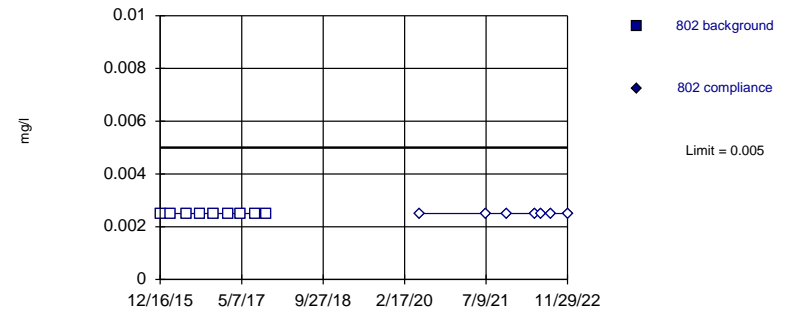
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

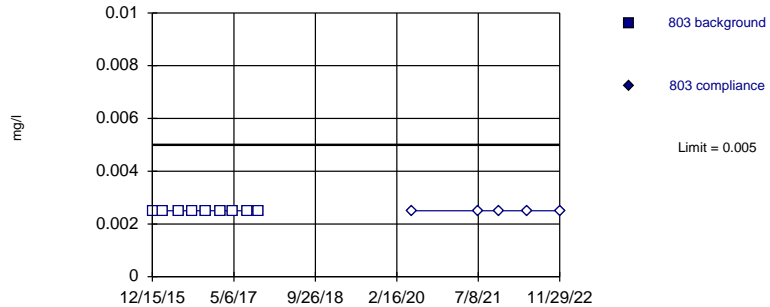
Constituent: Mercury, Molybdenum Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.0002							
12/16/2015					<0.005		<0.005	
2/17/2016	<0.0002				<0.005		<0.005	
5/26/2016	<0.0002				<0.005		<0.005	
6/2/2016			<0.0002					
7/19/2016			<0.0002					
8/23/2016	<0.0002		<0.0002		<0.005		<0.005	
11/10/2016	<0.0002				<0.005		<0.005	
11/11/2016			<0.0002					
2/9/2017	<0.0002		<0.0002		<0.005		<0.005	
3/22/2017			<0.0002					
5/3/2017	<0.0002		<0.0002		<0.005		<0.005	
8/1/2017	<0.0002		<0.0002		<0.005		<0.005	
10/4/2017	<0.0002		<0.0002		<0.005		<0.005	
5/18/2020		<0.0002		<0.0002		<0.005		<0.005
7/6/2021		<0.0002		<0.0002		<0.005		<0.005
11/15/2021		<0.0002		<0.0002		<0.005		<0.005
5/12/2022		<0.0002		<0.0002		<0.005		<0.005
6/15/2022								<0.005
8/19/2022								<0.005
11/29/2022		<0.0002		<0.0002		<0.005		<0.005

Within Limit

Prediction Limit

Intrawell Non-parametric



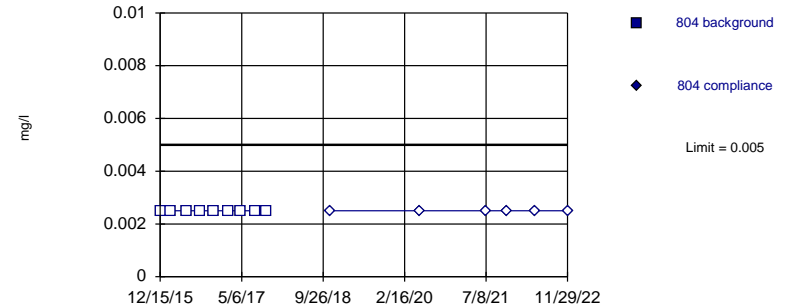
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



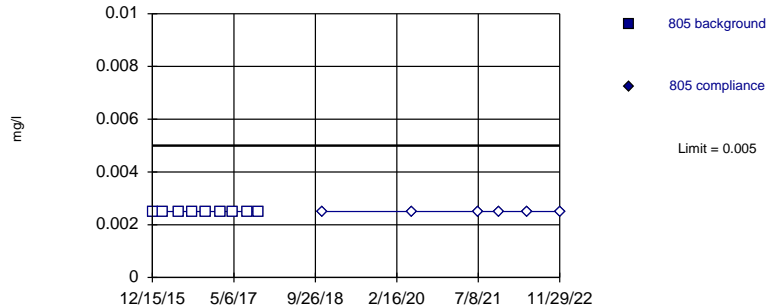
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



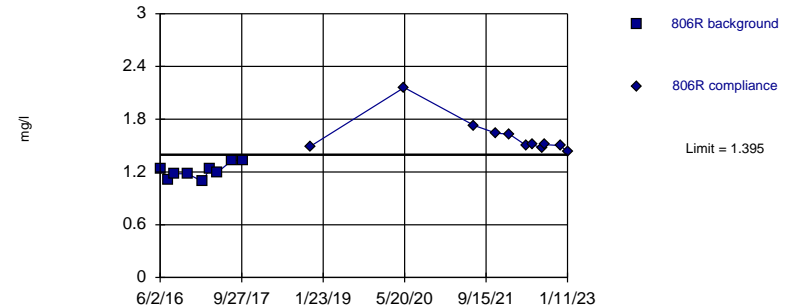
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.21, Std. Dev.=0.08456, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9266, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Molybdenum Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

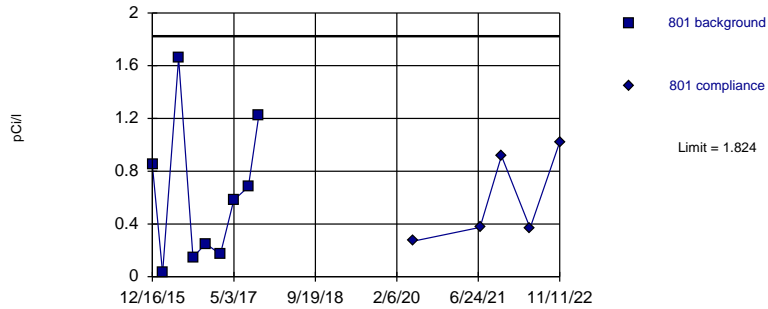
Prediction Limit

Constituent: Molybdenum Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	803	803	804	804	805	805	806R	806R
12/15/2015	<0.005		<0.005		<0.005			
2/17/2016	<0.005		<0.005		<0.005			
5/26/2016	<0.005		<0.005		<0.005			
6/2/2016							1.24	
7/19/2016							1.11	
8/23/2016	<0.005		<0.005		<0.005		1.18	
11/10/2016	<0.005		<0.005		<0.005			
11/11/2016							1.18	
2/9/2017	<0.005		<0.005		<0.005		1.09	
3/22/2017							1.24	
5/3/2017	<0.005		<0.005		<0.005		1.19	
8/1/2017	<0.005		<0.005		<0.005		1.33	
10/4/2017	<0.005		<0.005		<0.005		1.33	
11/8/2018				<0.005		<0.005		1.49
5/18/2020		<0.005		<0.005		<0.005		2.16
7/6/2021		<0.005		<0.005		<0.005		1.73
11/15/2021		<0.005		<0.005		<0.005		1.64
1/31/2022								1.63
5/12/2022		<0.005		<0.005		<0.005		1.5
6/15/2022								1.51
8/18/2022								1.47
9/1/2022								1.51
11/29/2022		<0.005		<0.005		<0.005		1.5
1/11/2023								1.43 1st verification

Within Limit

Prediction Limit Intrawell Parametric

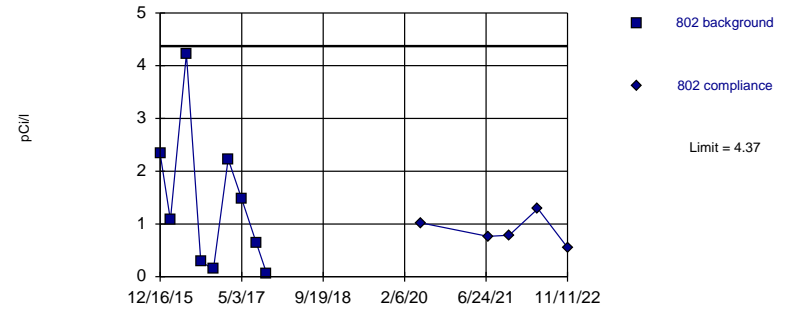


Background Data Summary: Mean=0.6204, Std. Dev.=0.5487, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.913, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric

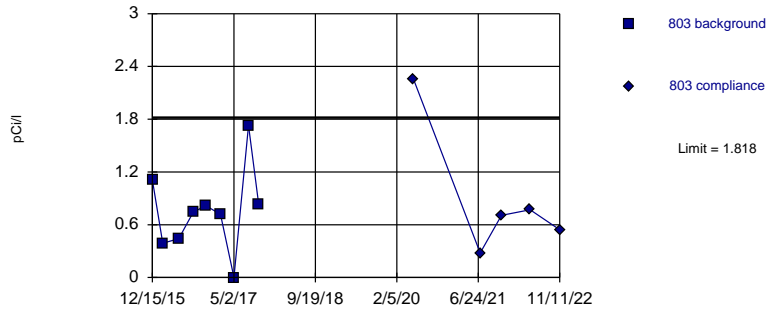


Background Data Summary: Mean=1.388, Std. Dev.=1.36, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8858, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric

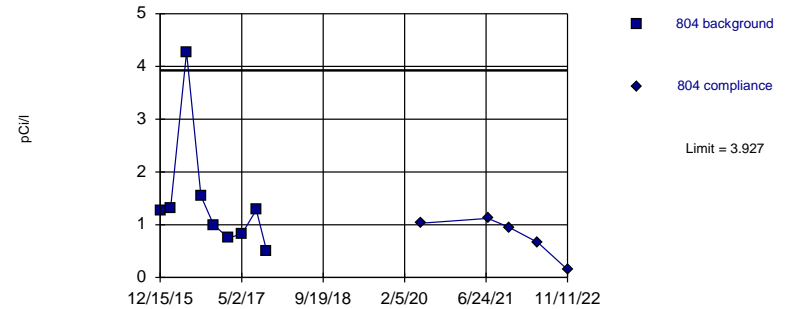


Background Data Summary: Mean=0.7523, Std. Dev.=0.486, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9475, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=1.133, Std. Dev.=0.3871, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.797, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

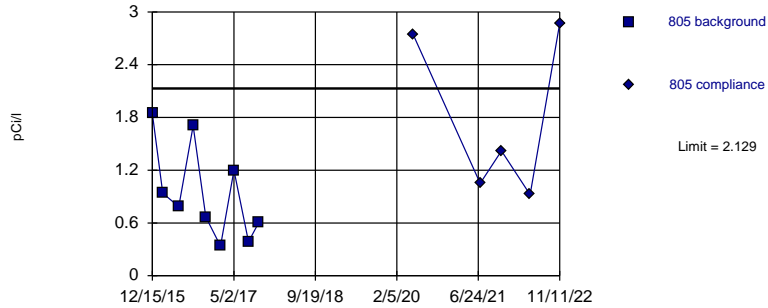
Prediction Limit

Constituent: Radium Combined Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	801	801	802	802	803	803	804	804
12/15/2015					1.11		1.257	
12/16/2015	0.848		2.334					
2/17/2016	0.028		1.075		0.389		1.308	
5/26/2016	1.658		4.222		0.441		4.27	
8/23/2016	0.146		0.287		0.741		1.545	
11/10/2016	0.251		0.144		0.817		1	
2/9/2017	0.17		2.23		0.717		0.749	
5/3/2017	0.582		1.48		0		0.822	
8/1/2017	0.681		0.65		1.73		1.28	
10/4/2017	1.22		0.066		0.826		0.511	
5/18/2020		0.27		1.02		2.26		1.03
7/6/2021		0.374		0.765		0.278		1.12
11/15/2021		0.916		0.786		0.707		0.949
5/12/2022		0.369 (J)		1.29		0.77		0.661
11/11/2022		1.02		0.552		0.543		0.15

Exceeds Limit

Prediction Limit
Intrawell Parametric

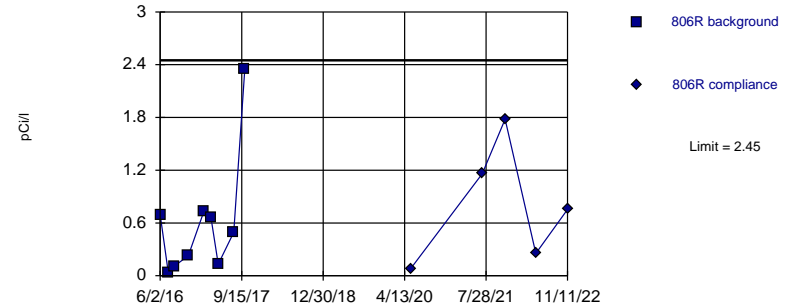


Background Data Summary: Mean=0.9412, Std. Dev.=0.5416, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9047, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

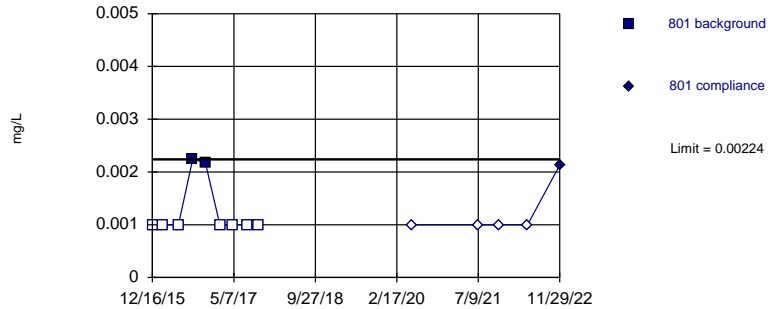


Background Data Summary (based on square root transformation): Mean=0.6773, Std. Dev.=0.4049, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9055, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 3/14/2023 4:23 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

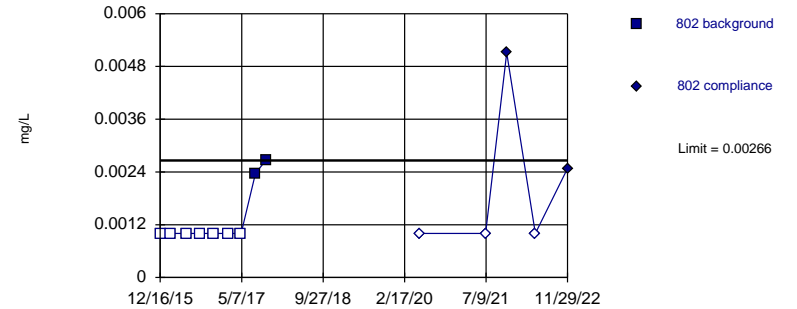


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 3/14/2023 4:24 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 3/14/2023 4:24 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

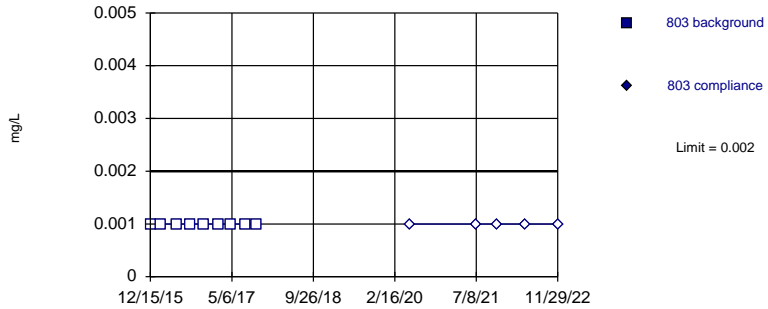
Constituent: Radium Combined, Selenium Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
 Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	805	805	806R	806R	801	801	802	802
12/15/2015	1.843							
12/16/2015					<0.002		<0.002	
2/17/2016	0.94				<0.002		<0.002	
5/26/2016	0.785				<0.002		<0.002	
6/2/2016			0.695					
7/19/2016			0.034					
8/23/2016	1.705		0.109		0.00224		<0.002	
11/10/2016	0.668				0.00218		<0.002	
11/11/2016			0.228					
2/9/2017	0.338		0.731		<0.002		<0.002	
3/22/2017			0.668					
5/3/2017	1.2		0.131		<0.002		<0.002	
8/1/2017	0.387		0.494		<0.002		0.00237	
10/4/2017	0.605		2.35		<0.002		0.00266	
5/18/2020		2.74		0.078		<0.002		<0.002
7/6/2021		1.05		1.16		<0.002		<0.002
11/15/2021		1.42		1.78		<0.002		0.00511
5/12/2022		0.922		0.253 (J)		<0.002		<0.002
11/11/2022		2.87		0.754				
11/29/2022						0.00213		0.00248

Within Limit

Prediction Limit

Intrawell Non-parametric



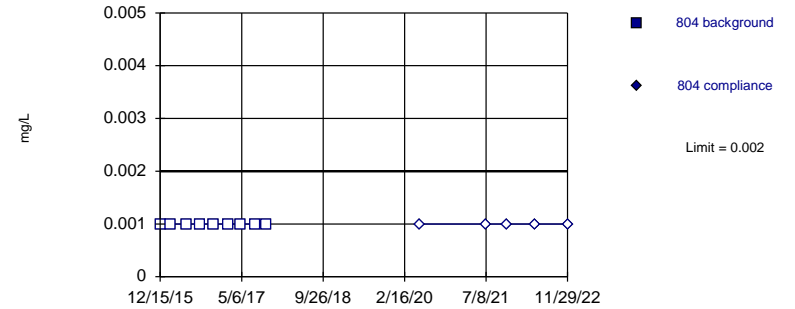
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 3/14/2023 4:24 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



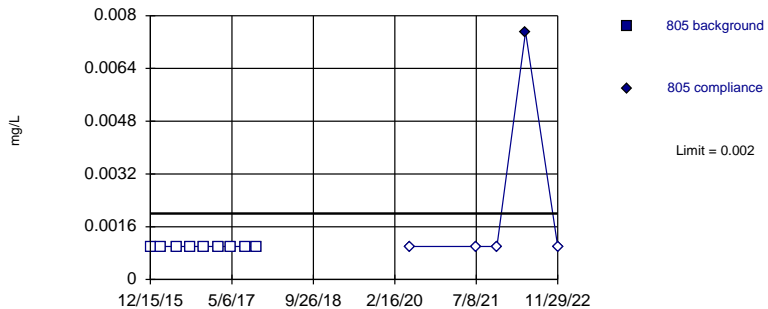
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 3/14/2023 4:24 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



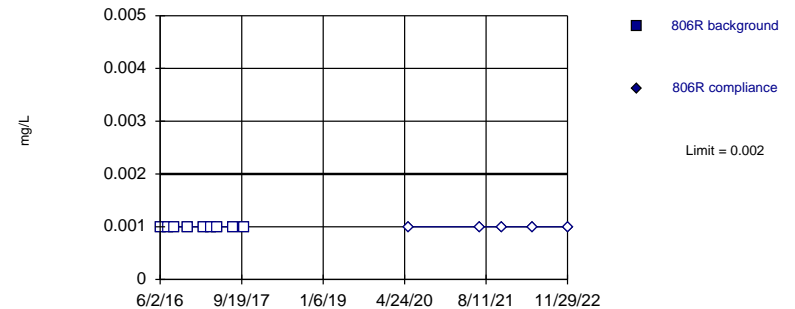
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 3/14/2023 4:24 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 3/14/2023 4:24 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Selenium Analysis Run 3/14/2023 4:26 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	803	803	804	804	805	805	806R	806R
12/15/2015	<0.002		<0.002		<0.002			
2/17/2016	<0.002		<0.002		<0.002			
5/26/2016	<0.002		<0.002		<0.002			
6/2/2016							<0.002	
7/19/2016							<0.002	
8/23/2016	<0.002		<0.002		<0.002		<0.002	
11/10/2016	<0.002		<0.002		<0.002			
11/11/2016							<0.002	
2/9/2017	<0.002		<0.002		<0.002		<0.002	
3/22/2017							<0.002	
5/3/2017	<0.002		<0.002		<0.002		<0.002	
8/1/2017	<0.002		<0.002		<0.002		<0.002	
10/4/2017	<0.002		<0.002		<0.002		<0.002	
5/18/2020		<0.002		<0.002		<0.002		<0.002
7/6/2021		<0.002		<0.002		<0.002		<0.002
11/15/2021		<0.002		<0.002		<0.002		<0.002
5/12/2022		<0.002		<0.002		0.00751		<0.002
11/29/2022		<0.002		<0.002		<0.002		<0.002

Prediction Limit

Sibley Generating Station UWL Client: SCS Engineers Data: Sibley Printed 3/14/2023, 4:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	801	0.002	n/a	11/29/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	802	0.002	n/a	11/29/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	803	0.002	n/a	11/29/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	804	0.002	n/a	11/29/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	805	0.002	n/a	11/29/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	806R	0.002	n/a	11/29/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	801	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	802	0.007646	n/a	11/29/2022	0.00238	No	9	11.11	x^(1/3)	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	803	0.004999	n/a	11/29/2022	0.00263	No	9	0	No	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	804	0.01078	n/a	11/29/2022	0.001ND	No	9	0	No	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	805	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	806R	0.00776	n/a	11/29/2022	0.00316	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	801	0.146	n/a	11/29/2022	0.144	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	802	0.3056	n/a	11/29/2022	0.151	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	803	0.1509	n/a	11/29/2022	0.114	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	804	0.5223	n/a	11/29/2022	0.431	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	805	0.1854	n/a	11/29/2022	0.139	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	806R	0.1276	n/a	11/29/2022	0.074	No	9	0	No	0.000...	Param Intra 1 of 3
Beryllium (mg/L)	801	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	802	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	803	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	804	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	805	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	806R	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	801	0.001	n/a	11/29/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	802	0.001	n/a	11/29/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	803	0.001	n/a	11/29/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	804	0.001	n/a	11/29/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	805	0.001	n/a	11/29/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	806R	0.001	n/a	11/29/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	801	0.01	n/a	11/29/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	802	0.01	n/a	11/29/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	803	0.01	n/a	11/29/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	804	0.01	n/a	11/29/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	805	0.01	n/a	11/29/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	806R	0.01	n/a	11/29/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	801	0.01	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	802	0.01	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	803	0.01	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	804	0.01	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	805	0.01	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	806R	0.01	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Fluoride (mg/L)	801	0.2137	n/a	11/29/2022	0.182	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	802	0.3234	n/a	11/29/2022	0.187	No	9	11.11	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	803	0.319	n/a	11/29/2022	0.298	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	804	0.2441	n/a	11/29/2022	0.262	Yes	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	805	0.2152	n/a	11/29/2022	0.221	Yes	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	806R	0.2979	n/a	11/29/2022	0.22	No	9	0	No	0.000...	Param Intra 1 of 3
Lead (mg/L)	801	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	802	0.0042	n/a	11/29/2022	0.001ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3

Prediction Limit

Sibley Generating Station UWL Client: SCS Engineers Data: Sibley Printed 3/14/2023, 4:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Lead (mg/L)	803	0.00385	n/a	11/29/2022	0.001ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	804	0.00865	n/a	11/29/2022	0.001ND	No	9	66.67	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	805	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	806R	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	801	0.03301	n/a	11/29/2022	0.0075ND	No	9	44.44	No	0.000...	Param Intra 1 of 3
Lithium (mg/l)	802	0.0168	n/a	11/29/2022	0.0075ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	803	0.0246	n/a	11/29/2022	0.0172	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	804	0.03616	n/a	11/29/2022	0.0231	No	9	0	ln(x)	0.000...	Param Intra 1 of 3
Lithium (mg/l)	805	0.0153	n/a	11/29/2022	0.0075ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	806R	0.0301	n/a	11/29/2022	0.0201	No	9	0	n/a	0.004675	NP Intra (normality) ...
Mercury (mg/L)	801	0.0002	n/a	11/29/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	802	0.0002	n/a	11/29/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	803	0.0002	n/a	11/29/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	804	0.0002	n/a	11/29/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	805	0.0002	n/a	11/29/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	806R	0.0002	n/a	11/29/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	801	0.005	n/a	11/29/2022	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	802	0.005	n/a	11/29/2022	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	803	0.005	n/a	11/29/2022	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	804	0.005	n/a	11/29/2022	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	805	0.005	n/a	11/29/2022	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	806R	1.395	n/a	11/11/2023	1.43	Yes	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	801	1.824	n/a	11/11/2022	1.02	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	802	4.37	n/a	11/11/2022	0.552	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	803	1.818	n/a	11/11/2022	0.543	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	804	3.927	n/a	11/11/2022	0.15	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	805	2.129	n/a	11/11/2022	2.87	Yes	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	806R	2.45	n/a	11/11/2022	0.754	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Selenium (mg/L)	801	0.00224	n/a	11/29/2022	0.00213	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	802	0.00266	n/a	11/29/2022	0.00248	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	803	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	804	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	805	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	806R	0.002	n/a	11/29/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3

Sibley Generating Station
Determination of Statistically Significant Increases
Fly Ash Impoundment
March 20, 2023

ATTACHMENT 2

Sanitas™ Configuration Settings

Exclude data flags:

Data Reading Options

- Individual Observations
- Mean of Each: Month
- Median of Each: Season

Automatically Process Resamples...

- Black and White Output
- Four Plots Per Page
 - Always Combine Data Pages...
 - Include Tick Marks on Data Page
- Use Constituent Name for Graph Title
- Draw Border Around Text Reports and Data Pages
- Enlarge/Reduce Fonts (Graphs):
- Enlarge/Reduce Fonts (Data/Text Reports):
- Wide Margins (on reports without explicit setting)
- Use CAS# (Not Const. Name)
- Truncate File Names to Characters
- Include Limit Lines when found in Database...
- Show Deselected Data on Time Series ▾
- Show Deselected Data on all Data Pages ▾

- Prompt to Overwrite/Append Summary Tables
- Round Limits to Sig. Digits (when not set in data file)
- User-Set Scale
- Indicate Background Data
- Show Exact Dates
- Thick Plot Lines

Zoom Factor: ▾

- Output Decimal Precision
- Less Precision
 - Normal Precision
 - More Precision

Store Print Jobs in Multiple Constituent Mode

Printer: ▾

Use Modified Alpha... 0.02

Test Residuals For Normality (Parametric test only) using Shapiro-Wilk/Francia at Alpha = 0.01

Continue Parametric if Unable to Normalize

Transformation (Parametric test only)

- Use Ladder of Powers
- Natural Log or No Transformation
- Never Transform
- Use Specific Transformation:

Use Best W Statistic

Plot Transformed Values

Use Non-Parametric Test (Sen's Slope/Mann-Kendall) when Non-Detects Percent > 75

Include 95. % Confidence Interval around Trend Line

Only when Trend is Significant

Include Details of Interaction with Limit Lines (if applicable, in Multiple Constituent mode)

Automatically Remove Outliers (Parametric test only)

Limit data to most recent values (dropping any earlier observations)

Note: there is no "Always Use Non-Parametric" checkbox on this tab because, for consistency with prior versions, Sen's Slope / Mann-Kendall (the non-parametric alternative) is available as a report in its own right, under Analysis->Intrawell->Trend.

Test for Normality using Shapiro-Wilk/Francia at Alpha = 0.01

Use Non-Parametric Test when Non-Detects Percent > 50

Use Aitchison's Adjustment when Non-Detects Percent > 15

Optional Further Refinement: Use Aitchison's when NDs % > 50

Use Poisson Prediction Limit when Non-Detects Percent > 90

Transformation

Use Ladder of Powers

Natural Log or No Transformation

Never Transform

Use Specific Transformation: Natural Log

Use Best W Statistic

Plot Transformed Values

Deseasonalize (Intra- and InterWell)

If Seasonality Is Detected

If Seasonality Is Detected Or Insufficient to Test

Always (When Sufficient Data) Never

Always Use Non-Parametric

Facility

Statistical Evaluations per Year:

Constituents Analyzed:

Downgradient (Compliance) Wells:

Sampling Plan

Comparing Individual Observations

1 of 1 1 of 2 1 of 3 1 of 4

2 of 4 ("Modified California")

IntraWell Other

Stop if Background Trend Detected at Alpha = 0.05

Plot Background Data

Override Standard Deviation:

Override DF: Override Kappa:

Automatically Remove Background Outliers

2-Tailed Test Mode...

Show Deselected Data Lighter

Non-Parametric Limit = Highest Background Value

Non-Parametric Limit when 100% Non-Detects:

Highest/Second Highest Background Value

Most Recent PQL if available, or MDL

Most Recent Background Value (subst. method)

Rank Von Neumann, Wilcoxon Rank Sum / Mann-Whitney

- Use Modified Alpha...
- 2-Tailed Test Mode...
- Combine Background Wells on Mann-Whitney...

Outlier Tests

- EPA 1989 Outlier Screening (fixed alpha of 0.05)
- Dixon's at $\alpha=$ or if n > Rosner's at $\alpha=$ Use EPA Screening to establish Suspected Outliers
- Tukey's Outlier Screening, with IQR Multiplier = Use Ladder of Powers to achieve Best W Stat
- Test For Normality at Alpha =
 - Stop if Non-Normal
 - Continue with Parametric Test if Non-Normal
 - Tukey's if Non-Normal, with IQR Multiplier = Use Ladder of Powers to achieve Best W Stat
- No Outlier If Less Than Times Median
- Apply Rules found in Ohio Guidance Document 0715
- Combine Background Wells on the Outlier Report...

Piper, Stiff Diagram

- Combine Wells
- Combine Dates
- Use Default Constituent Names
- Use Constituent Definition File
- Label Constituents
- Label Axes
- Note Cation-Anion Balance (Piper only)