

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

FLY ASH IMPOUNDMENT SIBLEY GENERATING STATION SIBLEY, MISSOURI

Presented To:
Energys Missouri West, Inc.

SCS ENGINEERS

27213169.22 | January 2023

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

CERTIFICATIONS

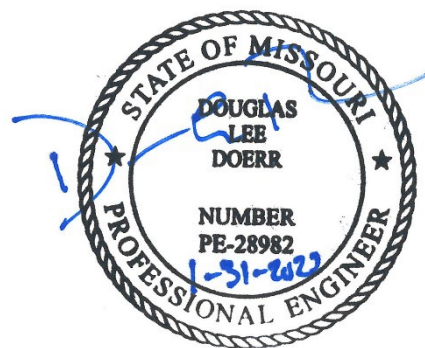
I, John R. Rockhold, being a qualified groundwater scientist and Registered Geologist in the State of Missouri, do hereby certify that the 2022 Annual Groundwater Monitoring and Corrective Action Report for the Fly Ash Impoundment at the Sibley Generating Station was prepared by me or under my direct 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 2022 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

2022 Groundwater Monitoring and Corrective Action Report

Revision Number	Revision Date	Revision Sections	Summary of Revisions
0	January 31, 2023	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.....	4
2.1 § 257.90(e)(1) Site Map.....	4
2.2 § 257.90(e)(2) Monitoring System Changes.....	4
2.3 § 257.90(e)(3) Summary of Sampling Events.....	4
2.4 § 257.90(e)(4) Monitoring Transition Narrative.....	5
2.5 § 257.90(e)(5) Other Requirements.....	6
2.5.1 § 257.90(e) Program Status.....	6
2.5.2 § 257.94(d)(3) Demonstration for Alternative Detection Monitoring Frequency... 7	7
2.5.3 § 257.94(e)(2) Detection Monitoring Alternate Source Demonstration.....	7
2.5.4 § 257.95(c)(3) Demonstration for Alternative Assessment Monitoring Frequency.....	7
2.5.5 § 257.95(d)(3) Assessment Monitoring Concentrations and Groundwater Protection Standards.....	8
2.5.6 § 257.95(g)(3)(ii) Assessment Monitoring Alternate Source Demonstration.....	8
2.5.7 § 257.96(a) Demonstration for Additional Time for Assessment of Corrective Measures.....	9
2.6 § 257.90(e)(6) Overview Summary.....	9
3 SUPPLEMENTAL INFORMATION AND DATA.....	9
4 GENERAL COMMENTS.....	10

Appendices

Appendix A Figures

- Figure 1: Site Map
- Figure 2: Potentiometric Surface Map (May 2022)
- Figure 3: Potentiometric Surface Map (November 2022)

Appendix B Tables

- Table 1 - Appendix IV Closure Monitoring and Appendix III and IV Assessment Monitoring
- Table 2 - Closure Monitoring and 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

2022 Groundwater Monitoring and Corrective Action Report

Appendix C Assessment of Corrective Measures 60 Day Extension Demonstration and Certification

Appendix D Laboratory Analytical Reports

Appendix E Statistical Analyses

- E.1 Fall 2021 Semiannual Detection Monitoring Statistical Analyses
- E.2 Closure Monitoring Statistical Analyses for Statistically Significant Increase
- E.3 Closure Monitoring Statistical Analyses for Statistically Significant Levels
- E.4 Spring 2022 Semiannual and Annual Assessment Monitoring Statistical Analyses

1 INTRODUCTION

This 2022 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 2022 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, (January 1, 2022), the CCR Impoundment was operating under a detection monitoring program in compliance with § 257.94.

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, 2022), 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

2022 Groundwater Monitoring and Corrective Action Report

Monitoring Event	Monitoring Well	Constituent	ASD
Fall 2021	MW-801	Chloride	Not Performed
Fall 2021	MW-803	Chloride	Not Performed
Fall 2021	MW-804	Boron	Not Performed
Fall 2021	MW-804	Chloride	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 2022. 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 2022 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 2022 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;

Two new monitoring wells were installed in November 2021 for a potential alternative source demonstration but subsequently used as part of the nature and extent investigation for the ACM. Six new monitoring wells were installed in April 2022 and eight new monitoring wells were installed in August 2022 as part of the nature and extent investigation for the ACM. **Figure 1** in **Appendix A** shows the location of the nature and extent monitoring wells. No wells were decommissioned as part of the CCR groundwater monitoring program for the Fly Ash Impoundment in 2022.

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;

Appendix IV groundwater samples for closure confirmation monitoring were collected on November 15, 2021 following removal of coal combustion residuals (CCR) from the Fly Ash

Impoundment. Review and validation of the results from the November 2021 closure confirmation sampling event was completed on January 7, 2022, which constitutes completion and finalization of the closure confirmation monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there was a statistically significant increase (SSI) over background values for each constituent listed in Appendix IV to Part 257- Constituents for Assessment Monitoring. One round of verification sampling for the closure sampling was conducted for certain constituents on January 31, 2022. Appendix IV samples were collected for the Spring 2022 Semiannual and 2022 Annual Assessment Monitoring events on May 12, 2022. Two rounds of verification sampling were conducted for certain constituents on June 15, 2022 and August 18, 2022. Appendix III and Appendix IV Assessment Monitoring samples were collected on November 29, 2022. Nature and extent samples were collected on May 13, 2022; June 15 and 16, 2022; August 19, 2022; September 1 and 2, 2022; and, November 10 and 11, 2022.

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

Table 1 - Appendix IV Closure Monitoring and Appendix III and IV Assessment Monitoring

Table 2 - Closure Monitoring and Assessment Monitoring Field Measurements

Table 3 - Nature and Extent Corrective Measures Monitoring Results

Table 4 - Nature and Extent Corrective Measures Monitoring Field Measurements

These tables include the November 2021 Closure Monitoring event verification sample data collected and analyzed in 2022; the Spring 2022 Semiannual and Annual Assessment monitoring data, verification sample data; and, the initial Fall 2022 Semiannual Assessment Monitoring data; and, data from several Nature and Extent Corrective Measures Monitoring events. 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

Appendix IV groundwater samples for closure confirmation monitoring were collected on November 15, 2021 following removal of coal combustion residuals (CCR) from the Fly Ash Impoundment. Review and validation of the results from the November 2021 closure confirmation sampling event was completed on January 7, 2022, which constitutes completion and finalization of the closure confirmation monitoring laboratory analyses. In accordance with 40 CFR 257.102(c) groundwater closure monitoring concentrations cannot exceed the groundwater protection standard (GWPS). Statistical evaluation completed on February 14, 2022 identified one Appendix IV constituent (molybdenum) above its GWPS established for MW-806R. 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.

An assessment of corrective measures (ACM) was initiated on April 18, 2022 for molybdenum in accordance with 40 CFR 257.96. The Fly Ash Impoundment remained in Assessment Monitoring through 2022 in accordance with 40 CFR 257.96

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.

The groundwater monitoring and corrective action program is in Assessment Monitoring. An ACM was completed in 2022 and additional data is being collected to assist with selection of a remedy.

Summary of Key Actions Completed.

- a. completion of the verification sampling and analyses for the closure sampling event,
- b. completion of the Fall 2021 verification sampling and analyses per the certified statistical method,
- c. completion of the statistical evaluation of the Fall 2021 semiannual detection monitoring sampling and analysis event per the certified statistical method,
- d. completion of the 2021 Annual Groundwater Monitoring and Corrective Action Report,
- e. initiation of assessment monitoring program on March 28, 2022 and notification of establishing an assessment monitoring program on March 28, 2022,
- f. establishment of groundwater protection standards for the Fly Ash Impoundment monitoring system,
- g. initiation of an assessment of corrective measures (ACM) on April 18, 2022 for molybdenum,
- h. installation of monitoring wells in April and August 2022 as part of the nature and extent investigation to assist with the ACM,
- i. completion of the Spring 2022 semiannual and annual assessment monitoring sampling and analysis event with subsequent verification sampling per the certified statistical method,
- j. sampling of nature and extent monitoring wells as part of the ACM on May 13, 2022; June 15 and 16, 2022; August 19, 2022; September 1 and 2, 2022; and, November 10 and 11, 2022,
- k. completion of the ACM report on September 15, 2022,
- l. completion of the statistical evaluation of the Spring 2022 semiannual and annual assessment monitoring sampling and analysis event per the certified statistical method, and
- m. initiation of the Fall 2022 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 (2023).

Completion of verification sampling and data analysis, and the statistical evaluation of Fall 2022 assessment monitoring sampling and analysis event. Semiannual Spring and Fall 2023 groundwater sampling and analysis. Completion of the statistical evaluation of the Spring 2023 assessment monitoring sampling and analysis event. The continuation of the nature and extent investigation will continue in 2023. The next semi-annual status report for the ACM is due in March 2023. 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**.

Appendix IV groundwater samples for closure confirmation monitoring were collected on November 15, 2021 following removal of coal combustion residuals (CCR) from the Fly Ash Impoundment. Review and validation of the results from the November 2021 closure confirmation sampling event was completed on January 7, 2022, which constitutes completion and finalization of the closure confirmation monitoring laboratory analyses. In accordance with 40 CFR 257.102(c) groundwater closure monitoring concentrations cannot exceed the groundwater protection standard (GWPS).

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.

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 is provided in **Appendix C** of this report

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 2022 – First verification sampling for the closure monitoring event.
 - February 2022 – First verification sampling for the Fall 2021 detection monitoring event.
 - May 2022 – Spring 2022 semiannual and annual assessment monitoring event.
 - May 2022 – Nature and Extent monitoring sampling event for ACM.
 - June 2022 – First verification sampling for the Spring 2022 semiannual and annual assessment monitoring sampling event.
 - June 2022 – Nature and Extent monitoring sampling event for ACM.
 - August 2022 – Nature and Extent monitoring sampling event for ACM.
 - September 2022 – Nature and Extent monitoring sampling event for ACM.
 - November 2022 – Nature and Extent monitoring sampling event for ACM.
 - November 2022 - Fall 2022 semiannual assessment monitoring sampling event.
- **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 2022 included the following:

 - Fall 2021 semiannual detection monitoring statistical analyses.
 - Closure Monitoring Statistical Analyses for Statistically Significant Increase
 - Closure Monitoring Statistical Analyses for Statistically Significant Levels
 - Spring 2022 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** - Spring 2022 semiannual and annual assessment monitoring sampling event.
 - **Figure 3** - Fall 2022 semiannual and annual 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.

2022 Groundwater Monitoring and Corrective Action Report

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 (May 2022)

Figure 3: Potentiometric Surface Map (November 2022)

N:\KCP\Projects\Groundwater\DWG\Sibley\2022\ASD\9.8.22\Figures 2, 3, & 5.dwg Jan 24, 2023 - 5:25pm Layout Name: 2 By: swly



LEGEND:
 ● 806R GROUNDWATER MONITORING SYSTEM WELL
 ● 809 NATURE AND EXTENT WELLS
 — CCR FLY ASH IMPOUNDMENT UNIT BOUNDARY

NOTES:

- HORIZONTAL & VERTICAL DATUM:
URS PLANS FOR CONSTRUCTION,
KCP&L SIBLEY GENERATING STATION,
DESIGN FILE 16530511.00001, DATED
JANUARY 2010
- GOOGLE EARTH IMAGE DATED JULY 2022.
- BOUNDARY AND MONITORING WELL
LOCATIONS SHOWN ARE APPROXIMATE.



REV.	DATE

SHEET TITLE
**FLY ASH IMPOUNDMENT
 MONITORING WELL LOCATION MAP**
 PROJECT TITLE
**2022 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

DESIGN BY: ALR	CHECK BY: JRF	DATE: 1/23/2023
DRAWN BY: ALR	CHK. BY: JRF	PROJ. MGR: JRF
DATE: 1/23/2023	DATE: 1/23/2023	DATE: 1/23/2023

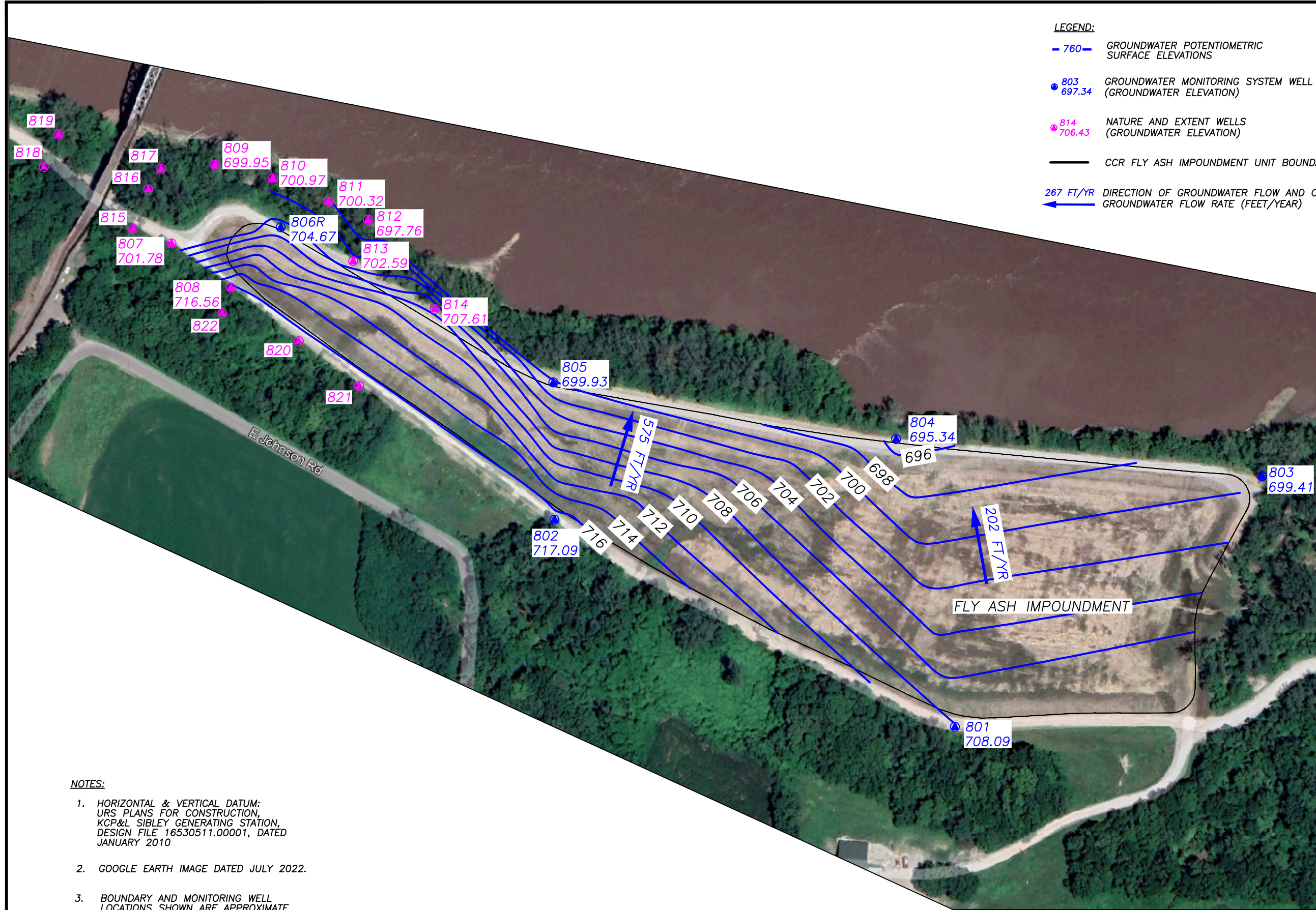
CADD FILE:
 FIGURES 2, 3, & 5.DWG

DATE:
 1/23/2023

FIGURE NO.

1

N:\KCP\Projects\Groundwater\DWG\Sibley\2022\GW\Figure 1A v2.dwg Jan 24, 2023 - 5:27pm Layout Name: Fig 2C By: swly



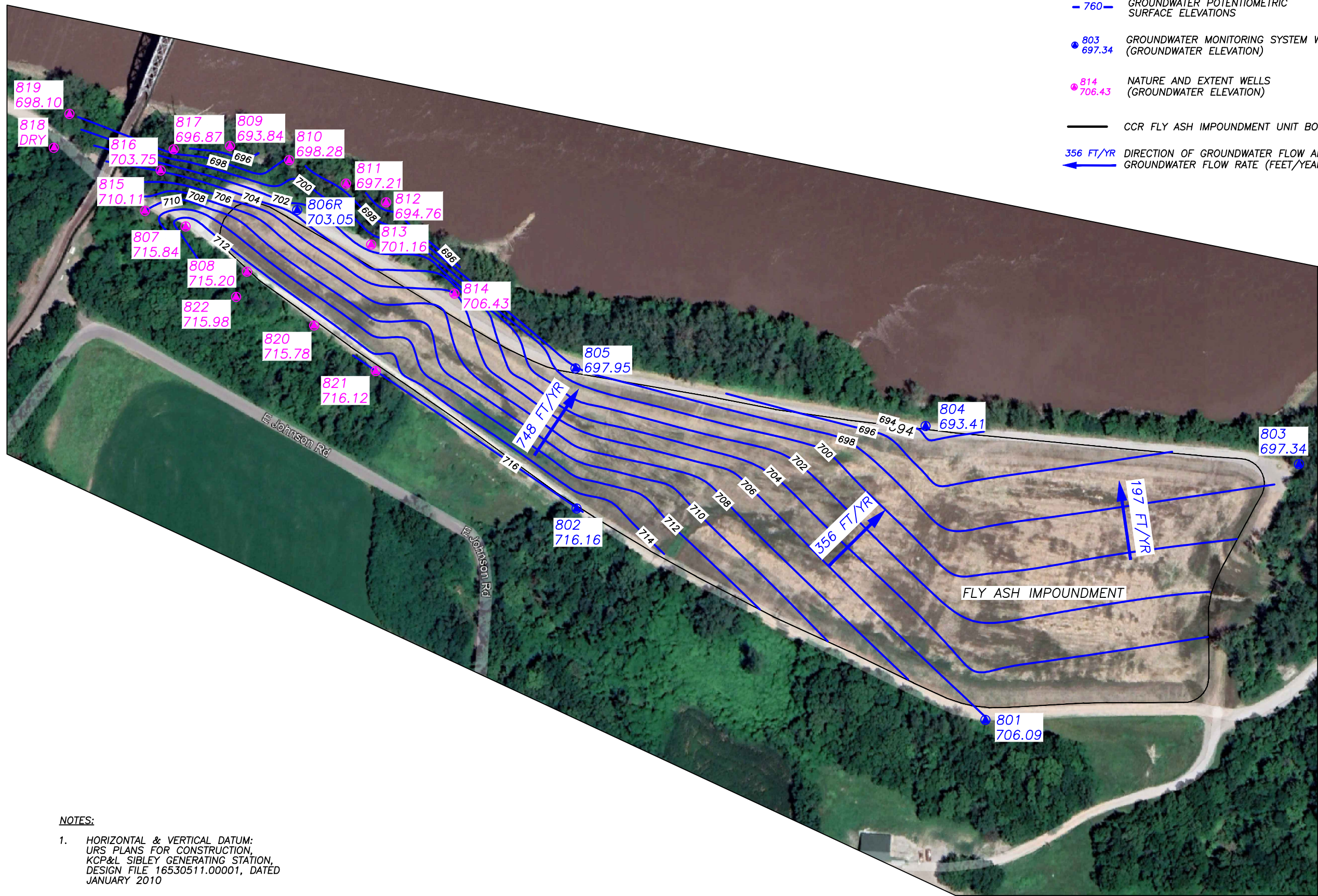
- LEGEND:**
- 760 - GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS
 - 803 697.34 GROUNDWATER MONITORING SYSTEM WELL (GROUNDWATER ELEVATION)
 - 814 706.43 NATURE AND EXTENT WELLS (GROUNDWATER ELEVATION)
 - CCR FLY ASH IMPOUNDMENT UNIT BOUNDARY
 - 267 FT/YR DIRECTION OF GROUNDWATER FLOW AND CALCULATED GROUNDWATER 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 MAY 12, 2022.
 5. MONITORING WELLS MW-815 THROUGH MW-822 WERE NOT INSTALLED AT THE TIME OF THE WATER LEVEL MEASUREMENTS.



REV.	DATE		
SHEET TITLE		POTENTIOMETRIC SURFACE MAP (MAY 2022)	
PROJECT TITLE		FLY ASH IMPOUNDMENT	
CLIENT		EVERGY MISSOURI WEST, INC. SIBLEY GENERATING STATION SIBLEY, MISSOURI	
CADD FILE:		FIGURE 1A_V2.DWG	
DATE:		1/24/2023	
FIGURE NO.		2	
DESIGN BY:	CHK BY:	DATE:	
2/7/13	ALR	1/24/2023	
DRAWN BY:	CHK BY:	DATE:	
ALR	JRF		
DESIGNED BY:	CHK BY:	DATE:	
	JRF		
PROD. MGR:	CHK BY:	DATE:	
JRF	JRF		

N:\KCP\Projects\Groundwater\DWG\Sibley\2022\GW\Figure 1A v3.dwg Jan 24, 2023 - 4:16pm Layout Name: Fig 2C By: swly



- LEGEND:**
- 760 — GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS
 - 803 GROUNDWATER MONITORING SYSTEM WELL (GROUNDWATER ELEVATION) 697.34
 - 814 NATURE AND EXTENT WELLS (GROUNDWATER ELEVATION) 706.43
 - CCR FLY ASH IMPOUNDMENT UNIT BOUNDARY
 - ← 356 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 NOVEMBER 10 & 11, 2022.



	REV.	DATE			
SHEET TITLE: POTENTIOMETRIC SURFACE MAP (NOVEMBER 2022) FLY ASH IMPOUNDMENT					
PROJECT TITLE: 2022 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					
DRAWN BY: ALR CHECKED BY: ALR DATE: 1/23/2023	O/A REV BY: JRF PROD. MGR: JRF				
CADD FILE: FIGURE 1A_V3.DWG					
DATE: 1/23/2023					
FIGURE NO. 3					

APPENDIX B

TABLES

Table 1 - Appendix IV Closure Monitoring and Appendix III and IV Assessment Monitoring

Table 2 - Closure Monitoring and 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	2/1/2022	---	---	*147	---	**6.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-801	5/12/2022	---	---	---	0.193	7.26	---	---	<0.00400	0.00260	0.161	<0.00200	<0.00100	<0.0100	<0.00200	0.193	<0.00200	<0.0150	<0.000200	<0.00500	<0.00200	<0.00200	0.369
MW-801	11/11/2022	---	---	---	---	6.69	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.02
MW-801	11/29/2022	<0.200	123	136	0.182	7.23	45.0	605	<0.00400	<0.00200	0.144	<0.00200	<0.00100	<0.0100	<0.00200	0.182	<0.00200	<0.0150	<0.000200	<0.00500	0.00213	---	---
MW-802	5/12/2022	---	---	---	0.169	7.54	---	---	<0.00400	0.0139	0.476	<0.00200	0.00115	0.0109	0.0111	0.169	0.0134	<0.0150	<0.000200	<0.00500	<0.00200	<0.00200	1.29
MW-802	6/15/2022	---	---	---	---	**6.18	---	---	---	*<0.00200	---	---	---	---	*<0.00200	---	---	---	---	**<0.00500	---	---	---
MW-802	8/19/2022	---	---	---	---	**6.26	---	---	---	---	---	---	---	---	---	---	---	---	---	**<0.00500	---	---	---
MW-802	11/11/2022	---	---	---	---	6.30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.552 (J)
MW-802	11/29/2022	<0.200	39.2	32.0	0.187	6.62	35.8	246	<0.00400	0.00238	0.151	<0.00200	<0.00100	<0.0100	<0.00200	0.187	<0.00200	<0.0150	<0.000200	<0.00500	0.00248	---	---
MW-803	2/1/2022	---	---	*19.6	---	**7.15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-803	5/12/2022	---	---	---	0.277	7.16	---	---	<0.00400	0.00460	0.148	<0.00200	<0.00100	<0.0100	<0.00200	0.277	<0.00200	<0.0150	<0.000200	<0.00500	<0.00200	<0.00200	0.770
MW-803	11/11/2022	---	---	---	---	6.73	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.543 (J)
MW-803	11/29/2022	2.99	105	20.5	0.298	7.11	117	479	<0.00400	0.00263	0.114	<0.00200	<0.00100	<0.0100	<0.00200	0.298	<0.00200	0.0172	<0.000200	<0.00500	<0.00200	---	---
MW-804	1/31/2022	*15.9	---	*28.4	*0.216	**6.95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-804	5/12/2022	---	---	---	0.226	7.42	---	---	<0.00400	0.00277	0.398	<0.00200	<0.00100	<0.0100	<0.00200	0.226	<0.00200	0.0214	<0.000200	<0.00500	<0.00200	<0.00200	0.661
MW-804	11/11/2022	---	---	---	---	6.80	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.15 (J)
MW-804	11/29/2022	6.76	131	15.8	0.262	6.89	<5.00	554	<0.00400	<0.00200	0.431	<0.00200	<0.00100	<0.0100	<0.00200	0.262	<0.00200	0.0231	<0.000200	<0.00500	<0.00200	---	---
MW-805	5/12/2022	---	---	---	0.183	7.58	---	---	<0.00400	<0.00200	0.153	<0.00200	<0.00100	<0.0100	<0.00200	0.183	<0.00200	<0.0150	<0.000200	<0.00500	0.00751	<0.00200	0.922
MW-805	11/11/2022	---	---	---	---	6.56	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.87
MW-805	11/29/2022	<0.200	83.2	6.28	0.221	7.02	42.0	312	<0.00400	<0.00200	0.139	<0.00200	<0.00100	<0.0100	<0.00200	0.221	<0.00200	<0.0150	<0.000200	<0.00500	<0.00200	---	---
MW-806R	1/31/2022	---	---	---	---	**7.17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-806R	5/12/2022	---	---	---	0.185	8.20	---	---	<0.00400	<0.00200	0.0885	<0.00200	<0.00100	<0.0100	<0.00200	0.185	<0.00200	0.0177	<0.000200	1.50	<0.00200	<0.00200	0.253
MW-806R	6/15/2022	---	---	---	---	**6.76	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-806R	8/18/2022	---	---	---	---	**7.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-806R	9/1/2022	---	---	---	---	**7.17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-806R	11/11/2022	---	---	---	---	7.39	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.754 (J)
MW-806R	11/29/2022	3.82	146	28.3	0.220	7.85	256	649	<0.00400	0.00316	0.0740	<0.00200	<0.00100	<0.0100	<0.00200	0.220	<0.00200	0.0201	<0.000200	1.50	<0.00200	---	---

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

**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

(J) - The reported concentration for Radium-226 and/or Radium-228 was below the US EPA Method Minimum Detectable Activity (MDA) and is estimated, therefore the combined concentration for Radium-226/228 is also estimated.

--- Not Sampled

Table 2
Fly Ash Impoundment
Assessment 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-801	2/1/2022	**6.72	920	10.30	68.1	70	3.15	23.70	704.39
MW-801	5/12/2022	7.26	952	23.01	10.4	61	3.65	20.00	708.09
MW-801	11/11/2022	6.69	976	10.69	39.3	68	5.11	22.00	706.09
MW-801	11/29/2022	7.23	1060	12.76	0.6	105	4.01	21.85	706.24
MW-802	5/12/2022	7.54	732	17.53	455.0	8	0.00	13.60	718.63
MW-802	6/15/2022	**6.18	667	23.10	30.6	117	1.42	13.16	717.53
MW-802	8/19/2022	**6.26	506	18.47	68.6	206	6.35	13.80	718.63
MW-802	11/11/2022	6.30	376	7.89	46.3	147	4.78	14.43	718.63
MW-802	11/29/2022	6.62	402	13.89	172.0	127	3.94	14.41	718.63
MW-803	2/1/2022	**7.15	805	13.38	14.1	-120	0.00	31.65	692.49
MW-803	5/12/2022	7.16	775	17.79	11.6	-68	0.00	24.73	699.41
MW-803	11/11/2022	6.73	859	12.86	3.9	-111	0.67	26.80	697.34
MW-803	11/29/2022	7.11	780	15.14	0.0	-159	0.45	26.76	697.38
MW-804	1/31/2022	**6.95	1270	16.82	0.0	-129	1.03	23.96	700.38
MW-804	5/12/2022	7.42	1600	24.75	45.8	-266	0.00	29.00	695.34
MW-804	11/11/2022	6.80	683	13.49	38.7	100	0.71	30.93	693.41
MW-804	11/29/2022	6.89	996	15.31	34.9	-165	0.27	31.65	692.69
MW-805	5/12/2022	7.58	1050	22.00	11.8	-158	0.00	23.28	699.93
MW-805	11/11/2022	6.56	598	12.13	2.5	-1	0.32	25.30	697.95
MW-805	11/29/2022	7.02	582	13.64	12.1	24	6.18	26.22	697.03
MW-806R	1/31/2022	**7.17	949	17.88	33.9	-109	0.96	27.10	700.27
MW-806R	5/12/2022	8.20	1570	19.90	7.0	-99	0.00	22.70	704.67
MW-806R	6/15/2022	**6.76	960	17.71	16.6	-55	0.67	21.81	705.56
MW-806R	8/18/2022	**7.07	988	17.88	6.4	-32	1.13	24.65	702.72
MW-806R	9/1/2022	**7.17	1020	18.75	5.7	-63	0.00	24.12	703.25
MW-806R	11/11/2022	7.39	1080	13.25	44.0	-115	0.74	24.32	703.05
MW-806R	11/29/2022	7.85	1090	15.52	9.4	-75	0.47	24.02	703.35

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

**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	5/12/2022	---	---	---	---	8.32	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0102	---	---	---
MW-807	6/15/2022	---	---	---	---	7.27	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00750	---	---	---
MW-807	8/19/2022	---	---	---	---	7.67	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00618	---	---	---
MW-807	9/1/2022	---	---	---	---	7.38	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00802	---	---	---
MW-807	11/10/2022	---	---	---	---	7.81	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-808	5/12/2022	---	---	---	---	8.39	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-808	6/15/2022	---	---	---	---	6.78	---	---	---	---	---	---	---	---	---	---	---	---	---	0.319	---	---	---
MW-808	8/19/2022	---	---	---	---	7.23	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-808	9/1/2022	---	---	---	---	7.20	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-808	11/11/2022	---	---	---	---	7.99	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-809	5/12/2022	---	---	---	---	7.22	---	---	---	---	---	---	---	---	---	---	---	---	---	0.405	---	---	---
MW-809	6/15/2022	---	---	---	---	6.84	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0661	---	---	---
MW-809	8/19/2022	---	---	---	---	7.02	---	---	---	---	---	---	---	---	---	---	---	---	---	0.352	---	---	---
MW-809	9/1/2022	---	---	---	---	7.20	---	---	---	---	---	---	---	---	---	---	---	---	---	0.331	---	---	---
MW-809	11/11/2022	---	---	---	---	7.82	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0359	---	---	---
MW-810	5/12/2022	---	---	---	---	7.27	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0592	---	---	---
MW-810	6/15/2022	---	---	---	---	6.91	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0180	---	---	---
MW-810	8/19/2022	---	---	---	---	7.14	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0921	---	---	---
MW-810	9/1/2022	---	---	---	---	7.14	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0835	---	---	---
MW-810	11/11/2022	---	---	---	---	8.16	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0768	---	---	---
MW-811	5/12/2022	---	---	---	---	7.27	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0274	---	---	---
MW-811	6/16/2022	---	---	---	---	6.97	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-811	8/19/2022	---	---	---	---	7.21	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00899	---	---	---
MW-811	9/1/2022	---	---	---	---	7.28	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0129	---	---	---
MW-811	11/11/2022	---	---	---	---	7.92	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0119	---	---	---
MW-812	5/12/2022	---	---	---	---	7.73	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0126	---	---	---
MW-812	6/16/2022	---	---	---	---	6.97	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-812	8/19/2022	---	---	---	---	6.98	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-812	9/1/2022	---	---	---	---	7.09	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-812	11/11/2022	---	---	---	---	7.42	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-813	5/12/2022	---	---	---	---	7.89	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-813	6/16/2022	---	---	---	---	7.06	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00723	---	---	---
MW-813	8/19/2022	---	---	---	---	7.11	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-813	9/1/2022	---	---	---	---	7.31	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-813	11/10/2022	---	---	---	---	7.86	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-814	5/12/2022	---	---	---	---	8.09	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0127	---	---	---
MW-814	6/16/2022	---	---	---	---	7.00	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00705	---	---	---
MW-814	8/19/2022	---	---	---	---	7.06	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0108	---	---	---
MW-814	9/1/2022	---	---	---	---	7.26	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00877	---	---	---
MW-814	11/10/2022	---	---	---	---	7.96	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00826	---	---	---

**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-815	8/19/2022	---	---	---	---	7.37	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0116	---	---	---
MW-815	9/1/2022	---	---	---	---	7.10	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00533	---	---	---
MW-815	11/10/2022	---	---	---	---	8.10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-816	8/19/2022	---	---	---	---	7.31	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-816	9/2/2022	---	---	---	---	7.12	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-816	11/10/2022	---	---	---	---	7.82	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-817	8/19/2022	---	---	---	---	7.13	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00560	---	---	---
MW-817	9/1/2022	---	---	---	---	7.21	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00726	---	---	---
MW-817	11/11/2022	---	---	---	---	7.61	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00664	---	---	---
MW-818	8/19/2022	---	---	---	---	Well Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	Well Dry	---	---	---
MW-818	9/1/2022	---	---	---	---	Well Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	Well Dry	---	---	---
MW-818	11/10/2022	---	---	---	---	Well Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	Well Dry	---	---	---
MW-819	8/19/2022	---	---	---	---	6.89	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0147	---	---	---
MW-819	9/1/2022	---	---	---	---	7.48	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-819	11/11/2022	---	---	---	---	7.48	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-820	8/19/2022	---	---	---	---	7.30	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-820	9/1/2022	---	---	---	---	7.27	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-820	11/10/2022	---	---	---	---	7.52	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-821	8/19/2022	---	---	---	---	7.39	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-821	9/1/2022	---	---	---	---	7.16	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-821	11/10/2022	---	---	---	---	7.47	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-822	8/19/2022	---	---	---	---	7.51	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-822	9/1/2022	---	---	---	---	7.29	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---
MW-822	11/10/2022	---	---	---	---	7.79	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00500	---	---	---

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

**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

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	5/12/2022	8.32	1040	21.99	0.0	-39	0.00	19.36	710.78
MW-807	6/15/2022	7.27	522	30.80	58.6	76	1.49	17.85	712.29
MW-807	8/19/2022	7.67	558	18.10	65.8	43	0.55	19.42	710.72
MW-807	9/1/2022	7.38	526	20.32	21.5	36	1.77	20.31	709.83
MW-807	11/10/2022	7.81	554	19.94	47.0	76	3.10	14.30	715.84
MW-808	5/12/2022	8.39	790	18.07	5.4	-54	0.00	13.00	716.56
MW-808	6/15/2022	6.78	871	21.99	15.5	126	1.46	12.58	716.98
MW-808	8/19/2022	7.23	924	18.28	44.6	50	0.32	14.32	715.24
MW-808	9/1/2022	7.20	889	20.45	15.5	56	1.16	13.72	715.84
MW-808	11/11/2022	7.99	982	10.65	39.0	-92	3.09	14.36	715.20
MW-809	5/12/2022	7.22	876	23.90	810	-110	0.00	16.00	699.95
MW-809	6/15/2022	6.84	606	26.98	615	-159	3.48	15.46	700.49
MW-809	8/19/2022	7.02	859	16.60	89.0	-80	0.00	18.50	697.45
MW-809	9/1/2022	7.20	890	24.19	0.0	-82	0.98	18.59	697.36
MW-809	11/11/2022	7.82	979	10.26	96.5	-192	4.98	22.11	693.84
MW-810	5/12/2022	7.27	774	24.14	153.0	-28	4.37	14.82	700.97
MW-810	6/15/2022	6.91	802	26.86	69.8	-92	0.05	14.55	701.24
MW-810	8/19/2022	7.14	833	18.42	18.8	-130	0.00	17.11	698.68
MW-810	9/1/2022	7.14	841	24.57	296	-101	1.96	17.34	698.45
MW-810	11/11/2022	8.16	910	10.47	191	-221	5.01	17.51	698.28
MW-811	5/12/2022	7.27	804	21.24	95.6	-12	0.00	15.23	700.32
MW-811	6/16/2022	6.97	753	24.24	62.3	82	0.39	14.50	701.05
MW-811	8/19/2022	7.21	743	16.86	56.0	-136	0.00	18.27	697.28
MW-811	9/1/2022	7.28	801	23.28	52.0	-117	1.53	18.59	696.96
MW-811	11/11/2022	7.92	839	11.83	134.0	-125	2.44	18.34	697.21
MW-812	5/12/2022	7.73	2780	27.59	0.0	-299	0.00	17.11	697.76
MW-812	6/16/2022	6.97	1710	26.63	150	-209	0.00	14.59	700.28
MW-812	8/19/2022	6.98	1730	17.65	728	-148	0.00	21.22	693.65
MW-812	9/1/2022	7.09	1790	23.76	<1000	-122	0.00	18.63	696.24
MW-812	11/11/2022	7.42	1840	10.98	146.0	-139	3.18	20.11	694.76
MW-813	5/12/2022	7.89	1260	27.50	48	-271	0.00	19.94	702.59
MW-813	6/16/2022	7.06	830	25.25	635	-199	0.00	18.95	703.58
MW-813	8/19/2022	7.11	822	19.03	150	-109	1.79	19.31	703.22
MW-813	9/1/2022	7.31	866	23.51	125	-92	0.24	20.45	702.08
MW-813	11/10/2022	7.86	864	15.14	0.0	-171	1.29	21.51	701.16
MW-814	5/12/2022	8.09	878	26.01	0.0	-48	0.00	14.20	707.61
MW-814	6/16/2022	7.00	661	30.25	158	-25	0.70	12.91	708.90
MW-814	8/19/2022	7.06	721	21.12	10.3	47	1.75	15.71	706.10
MW-814	9/1/2022	7.26	658	25.11	116	-46	1.64	15.60	706.21
MW-814	11/10/2022	7.96	656	13.08	150	61	2.22	15.32	706.43

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-815	8/19/2022	7.37	618	18.49	61.0	-27	3.03	18.60	710.20
MW-815	9/1/2022	7.10	530	14.09	0.0	30	1.21	18.94	709.86
MW-815	11/10/2022	8.10	567	19.53	46.2	45	0.70	18.69	710.11
MW-816	8/19/2022	7.31	619	19.36	371	-132	0.00	12.26	704.09
MW-816	9/2/2022	7.12	614	18.36	39.4	-104	0.15	18.83	697.52
MW-816	11/10/2022	7.82	620	17.23	119.0	-149	1.25	12.60	703.75
MW-817	8/19/2022	7.13	650	16.58	126	-58	2.44	19.34	697.64
MW-817	9/1/2022	7.21	655	16.02	69.6	-58	2.44	20.42	696.56
MW-817	11/11/2022	7.61	697	11.59	230	-149	1.90	20.11	696.87
MW-818	8/19/2022	Well Dry							
MW-818	9/1/2022	Well Dry							
MW-818	11/10/2022	Well Dry							
MW-819	8/19/2022	6.89	988	16.59	>1000	196	4.29	18.89	698.21
MW-819	9/1/2022	7.48	930	16.79	201	-42	4.15	19.14	697.96
MW-819	11/11/2022	7.48	903	11.45	21	-83	1.62	19.00	698.10
MW-820	8/19/2022	7.30	762	19.43	11.7	88	0.57	11.11	716.48
MW-820	9/1/2022	7.27	679	20.97	5.4	66	0.93	11.50	716.09
MW-820	11/10/2022	7.52	694	18.56	0.0	79	1.70	11.81	715.78
MW-821	8/19/2022	7.39	711	18.63	32.8	110	1.50	13.10	715.42
MW-821	9/1/2022	7.16	589	21.96	3.3	74	1.85	13.39	715.13
MW-821	11/10/2022	7.47	537	18.38	0.0	108	4.34	12.40	716.12
MW-822	8/19/2022	7.51	605	17.47	115	92	3.00	10.00	716.83
MW-822	9/1/2022	7.29	559	20.80	28.5	58	2.94	10.41	716.42
MW-822	11/10/2022	7.79	573	18.74	19.0	92	1.64	10.85	715.98

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

**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 5
Fly Ash Impoundment
Appendix IV Background Data and Groundwater Protection Standards
Every 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	0.05	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	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-801	5/18/2020	**<0.00400	**<0.00200	**0.112	**<0.00200	**<0.00100	**<0.0100	**<0.0100	**0.162	**<0.00500	**<0.0150	**<0.000200	**<0.00500	**<0.00200	**<0.00200	0.270
MW-801	7/6/2021	**<0.00400	**<0.00200	**0.136	**<0.00200	**<0.00100	**<0.0100	**<0.00200	**0.192	**<0.00200	**0.0166	**<0.000200	**<0.00500	**<0.00200	**<0.00200	0.374 (J)
MW-801	11/15/2021	<0.004	<0.002	0.154	<0.002	<0.001	<0.01	<0.002	0.150	<0.002	<0.015	<0.002	<0.005	<0.002	<0.002	0.916
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-802	5/18/2020	**<0.00400	**0.00218	**0.163	**<0.00200	**<0.00100	**<0.0100	**<0.0100	**0.176	**<0.00500	**<0.0150	**<0.000200	**<0.00500	**<0.00200	**<0.00200	1.02
MW-802	7/6/2021	**<0.00400	**0.00286	**0.165	**<0.00200	**<0.00100	**<0.0100	**<0.00200	**0.203	**0.00203	**<0.0150	**<0.000200	**<0.00500	**<0.00200	**<0.00200	0.765 (J)
MW-802	11/15/2021	<0.004	0.00267	0.160	<0.002	<0.001	<0.01	<0.002	<0.150	<0.002	<0.015	<0.002	<0.005	0.00511	<0.002	0.756 (J)
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-803	5/18/2020	**<0.00400	**0.00246	**0.119	**<0.00200	**<0.00100	**<0.0100	**<0.0100	**0.265	**<0.00500	**<0.0150	**<0.000200	**<0.00500	**<0.00200	**<0.00200	2.26
MW-803	7/6/2021	**<0.00400	**<0.00200	**0.114	**<0.00200	**<0.00100	**<0.0100	**<0.00200	**0.282	**0.0045	**0.0150	**<0.000200	**<0.00500	**<0.00200	**<0.00200	0.278 (U)
MW-803	11/15/2021	<0.004	0.00265	0.122	<0.002	<0.001	<0.01	<0.002	0.276	<0.002	<0.015	<0.002	<0.005	<0.002	<0.002	0.707 (J)
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	

APPENDIX C

Demonstration and Certification of Need for 60-Day Extension

July 15, 2022
File No. 27213169.22

Evergy Missouri West, Inc.
818 South Kansas Avenue
Topeka, Kansas 66612

Attention: Jared Morrison –Director, Water and Waste Programs

**RE: Demonstration and Certification of Need for 60-Day Extension –
Assessment of Corrective Measures (ACM)
Fly Ash Impoundment
Sibley Generating Station**

Dear Mr. Morrison:

On behalf of Evergy Missouri West, Inc. (Evergy), in accordance with Title 40 Code of Federal Regulations (40 CFR) §257.96(a) of the U.S. Environmental Protection Agency Federal Coal Combustion Residuals (CCR) Rule (40 CFR §§257 and 261), effective October 19, 2015 and subsequent revisions, SCS Engineers has prepared this demonstration and certification of the need for an additional 60 days beyond the regulatory time period of 90 days to complete the assessment of corrective measures for the Fly Ash Impoundment (FAI) at the Sibley Generating Station due to complex site-specific conditions and the corresponding evaluation of the remedial treatment alternatives in support of the ACM process.

The FAI site has complex hydrogeology in the form of clay and silt overbank deposits becoming sandy with depth, overlying reworked glacial till above shale and limestone bedrock, between the toe of a bluff and the bank of the Missouri River. Therefore, additional time is needed to conduct nature and extent (N&E) investigations which are ongoing in support of the ACM process. Nature and extent information is an important component of the ACM and will allow Evergy to refine the understanding of groundwater flow and solute transport. Remaining tasks in the N&E investigation include installation of additional monitoring wells and collecting and evaluating groundwater data, which will require an estimated additional 45 to 60 days given time required to work in a wooded area and with the neighboring railroad to determine property lines and well locations.

Evergy is also in the process of completing groundwater modeling, evaluating risk, reviewing possible groundwater remedies as well as implementation of critical steps in the groundwater treatment and remedy assessment process, which will be completed concurrently in the additional 45 to 60 days.

Based on the above site-specific conditions and the related groundwater treatment alternatives evaluations in support of the ACM by Evergy, the CCR Rule allows for a 60-day extension to complete the ACM process.

Evergy Missouri West, Inc.

July 15, 2022

Page 2

This certification as submitted is, to the best of my knowledge, accurate and complete.



Douglas L. Doerr, P.E.

Missouri License No. PE-28982

Expiration Date: 12/31/23

Douglas L. Doerr, P.E.
SCS Engineers

JR/DD

APPENDIX D

LABORATORY ANALYTICAL REPORTS

- January 2022 – First verification sampling for the closure monitoring event.
- February 2022 – First verification sampling for the Fall 2021 detection monitoring event.
- May 2022 – Spring 2022 semiannual and annual assessment monitoring event.
- May 2022 – Nature and Extent monitoring sampling event for ACM.
- June 2022 – First verification sampling for the Spring 2022 semiannual and annual assessment monitoring sampling event.
- June 2022 – Nature and Extent monitoring sampling event for ACM.
- August 2022 – Nature and Extent monitoring sampling event for ACM.
- September 2022 – Nature and Extent monitoring sampling event for ACM.
- November 2022 – Nature and Extent monitoring sampling event for ACM.
- November 2022 - Fall 2022 semiannual assessment monitoring sampling event.

SCS Engineers - KS

Sample Delivery Group: L1457309
Samples Received: 02/02/2022
Project Number: 27213169.21-G
Description: Evergy - Sibley Generating Station

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	¹Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	²Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³Ss
MW-806R L1457309-01	5	
Qc: Quality Control Summary	6	⁴Cn
Metals (ICP) by Method 6010D	6	⁵Sr
Gl: Glossary of Terms	7	
Al: Accreditations & Locations	8	⁶Qc
Sc: Sample Chain of Custody	9	⁷Gl
		⁸Al
		⁹Sc

SAMPLE SUMMARY

MW-806R L1457309-01 GW

Collected by Jason R Franks
Collected date/time 01/31/22 14:40
Received date/time 02/02/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1812303	1	02/03/22 17:43	02/04/22 11:41	KMG	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 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	1630		5.00	1	02/04/2022 11:41	WG1812303

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

Method Blank (MB)

(MB) R3757153-1 02/04/22 10:25

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) R3757153-2 02/04/22 10:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	976	97.6	80.0-120	

4 Cn

5 Sr

L1456470-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1456470-02 02/04/22 10:30 • (MS) R3757153-4 02/04/22 10:36 • (MSD) R3757153-5 02/04/22 10:39

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	5.18	980	982	97.5	97.7	1	75.0-125			0.206	20

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

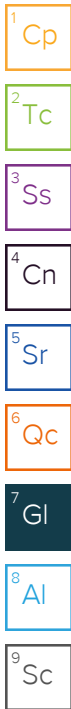
Guide to Reading and Understanding Your Laboratory Report

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.



SCS Engineers - KS

Sample Delivery Group: L1457346
Samples Received: 02/02/2022
Project Number: 27213169.21 - G
Description: Evergy - Sibley Generating Station

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	
Ss: Sample Summary	3	2 Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	3 Ss
MW-801 L1457346-01	5	
MW-803 L1457346-02	6	4 Cn
MW-804 L1457346-03	7	5 Sr
DUPLICATE L1457346-04	8	
Qc: Quality Control Summary	9	6 Qc
Wet Chemistry by Method 9056A	9	
Metals (ICP) by Method 6010D	11	7 Gl
Gl: Glossary of Terms	12	8 Al
Al: Accreditations & Locations	13	
Sc: Sample Chain of Custody	14	9 Sc

SAMPLE SUMMARY

MW-801 L1457346-01 GW

Collected by: Matt Vander Puttey
 Collected date/time: 02/01/22 15:55
 Received date/time: 02/02/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1812456	5	02/03/22 18:31	02/03/22 18:31	LBR	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

MW-803 L1457346-02 GW

Collected by: Matt Vander Puttey
 Collected date/time: 02/01/22 15:05
 Received date/time: 02/02/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1812456	1	02/03/22 18:48	02/03/22 18:48	LBR	Mt. Juliet, TN

4 Cn

5 Sr

MW-804 L1457346-03 GW

Collected by: Matt Vander Puttey
 Collected date/time: 01/31/22 15:55
 Received date/time: 02/02/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1812456	1	02/03/22 19:05	02/03/22 19:05	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1812431	1	02/04/22 12:17	02/04/22 23:58	KMG	Mt. Juliet, TN

6 Qc

7 Gl

8 Al

DUPLICATE L1457346-04 GW

Collected by: Matt Vander Puttey
 Collected date/time: 01/31/22 15:55
 Received date/time: 02/02/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1812456	1	02/03/22 20:12	02/03/22 20:12	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1812431	1	02/04/22 12:17	02/05/22 00:58	KMG	Mt. Juliet, TN

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

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	147000		5000	5	02/03/2022 18:31	WG1812456

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

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	19600		1000	1	02/03/2022 18:48	WG1812456

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

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	28400		1000	1	02/03/2022 19:05	WG1812456
Fluoride	216		150	1	02/03/2022 19:05	WG1812456

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	15900	<u>V</u>	200	1	02/04/2022 23:58	WG1812431

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

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	28300		1000	1	02/03/2022 20:12	WG1812456
Fluoride	214		150	1	02/03/2022 20:12	WG1812456

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	17000		200	1	02/05/2022 00:58	WG1812431

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

Method Blank (MB)

(MB) R3756772-1 02/03/22 09:36

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	432	↓	379	1000
Fluoride	U		64.0	150

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1457332-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1457332-04 02/03/22 13:26 • (DUP) R3756772-3 02/03/22 13:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	7030	6940	1	1.16		15
Fluoride	ND	ND	1	0.000		15

L1457346-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1457346-03 02/03/22 19:05 • (DUP) R3756772-5 02/03/22 19:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	28400	28400	1	0.170		15
Fluoride	216	218	1	0.968		15

Laboratory Control Sample (LCS)

(LCS) R3756772-2 02/03/22 09:53

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	41100	103	80.0-120	
Fluoride	8000	8390	105	80.0-120	

L1457332-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1457332-04 02/03/22 13:26 • (MS) R3756772-4 02/03/22 14:00

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	7030	59900	106	1	80.0-120	
Fluoride	5000	ND	5250	105	1	80.0-120	

L1457346-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1457346-03 02/03/22 19:05 • (MS) R3756772-6 02/03/22 19:38 • (MSD) R3756772-7 02/03/22 19:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Chloride	50000	28400	80500	80100	104	103	1	80.0-120			0.498	15
Fluoride	5000	216	5360	5340	103	102	1	80.0-120			0.344	15

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R3757224-1 02/04/22 23:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Boron	U		20.0	200

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3757224-2 02/04/22 23:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	945	94.5	80.0-120	

4 Cn

5 Sr

L1457346-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1457346-03 02/04/22 23:58 • (MS) R3757224-4 02/05/22 00:03 • (MSD) R3757224-5 02/05/22 00:05

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 %
Boron	1000	15900	16700	16600	83.4	74.2	1	75.0-125		V	0.551	20

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

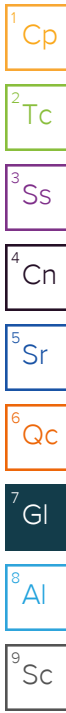
Guide to Reading and Understanding Your Laboratory Report

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
J	The identification of the analyte is acceptable; the reported value is an estimate.
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**

Project Description: **Energy - Sibley Generating Station**

City/State Collected: **Sibley MO**

Please Circle: PT MT ET

Phone: **913-681-0030**

Client Project #: **27213169.21 - G**

Lab Project #: **AQUAOPKS-SIBLEY**

Collected by (print): **Matt VanderPutten**

Site/Facility ID #

P.O. #

Collected by (signature): **Matt VanderPutte**

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: **std**

Immediately Packed on Ice N Y

Analysis / Container / Preservative

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>

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	Boron - 6010 250mlHDPE-HNO3	Chloride - 9056 125mlHDPE-NoPres	Chloride, F- 9056 125mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-801	Grab	GW		02/01/22	1555	1		X			-01
MW-803	Grab	GW		02/01/22	1505	1		X			-02
MW-804	Grab	GW		01/31/22	1555	2	X		X		-03
MW-804 MS/MSD	Grab	GW		01/31/22	1555	2	X		X		-03
DUPLICATE	Grab	GW		01/31/22	1555	2	X		X		-04

* 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 # _____

Relinquished by: (Signature) **Matt VanderPutte** Date: **02/01/22** Time: **1815**

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

Temp: **24** °C Bottles Received: **8**

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

Received for lab by: (Signature) **[Signature]** Date: **2/2/22** Time: **0930**

Hold: _____ Condition: **NCF / OK**

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

SCS Engineers - KS

Sample Delivery Group: L1493814
Samples Received: 05/14/2022
Project Number: 27213169.22-B
Description: Evergy - Sibley Generating Station
Site: FAI ACM 2022
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 L1493814-01	6	
MW-802 L1493814-02	7	
MW-803 L1493814-03	8	
MW-804 L1493814-04	9	
MW-805 L1493814-05	10	
MW-806R L1493814-06	11	
DUPLICATE L1493814-07	12	
Qc: Quality Control Summary	13	
Wet Chemistry by Method 9056A	13	
Mercury by Method 7470A	14	
Metals (ICP) by Method 6010D	17	
Metals (ICPMS) by Method 6020	21	
Gl: Glossary of Terms	23	
Al: Accreditations & Locations	24	
Sc: Sample Chain of Custody	25	

SAMPLE SUMMARY

MW-801 L1493814-01 GW

Collected by B. Coleman Collected date/time 05/12/22 13:10 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1875187	1	06/06/22 22:30	06/06/22 22:30	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1868799	1	05/31/22 11:59	06/01/22 12:57	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1868829	1	05/27/22 08:20	05/29/22 10:43	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1866308	1	05/20/22 13:27	05/22/22 20:53	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1867143	1	05/23/22 11:22	05/24/22 10:35	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866309	1	05/20/22 14:48	05/22/22 23:03	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866945	1	05/22/22 11:16	05/26/22 12:25	JPD	Mt. Juliet, TN



MW-802 L1493814-02 GW

Collected by B. Coleman Collected date/time 05/12/22 13:45 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1875187	1	06/06/22 22:43	06/06/22 22:43	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1868799	1	05/31/22 11:59	06/01/22 12:59	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1868829	1	05/27/22 08:20	05/29/22 10:45	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1866308	1	05/20/22 13:27	05/22/22 21:46	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1867143	1	05/23/22 11:22	05/24/22 10:44	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866309	1	05/20/22 14:48	05/22/22 23:07	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866945	1	05/22/22 11:16	05/26/22 12:29	JPD	Mt. Juliet, TN

MW-803 L1493814-03 GW

Collected by B. Coleman Collected date/time 05/12/22 14:55 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1875187	1	06/06/22 22:56	06/06/22 22:56	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1868799	1	05/31/22 11:59	06/01/22 13:01	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1868829	1	05/27/22 08:20	05/29/22 10:46	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1866308	1	05/20/22 13:27	05/22/22 21:54	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1867143	1	05/23/22 11:22	05/24/22 10:47	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866309	1	05/20/22 14:48	05/22/22 23:10	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866945	1	05/22/22 11:16	05/26/22 12:32	JPD	Mt. Juliet, TN

MW-804 L1493814-04 GW

Collected by B. Coleman Collected date/time 05/12/22 15:15 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1875187	1	06/06/22 23:49	06/06/22 23:49	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1868799	1	05/31/22 11:59	06/01/22 12:38	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1868835	1	05/25/22 10:18	05/26/22 09:02	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1867133	1	05/23/22 22:05	05/24/22 18:36	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1867144	1	05/22/22 20:52	05/23/22 14:27	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866309	1	05/20/22 14:48	05/22/22 22:18	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866945	1	05/22/22 11:16	05/25/22 20:42	JPD	Mt. Juliet, TN

MW-805 L1493814-05 GW

Collected by B. Coleman Collected date/time 05/12/22 14:45 Received date/time 05/14/22 09:45

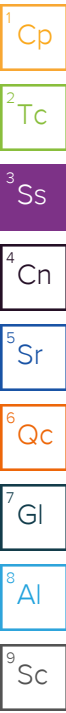
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1875187	1	06/06/22 23:09	06/06/22 23:09	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1868799	1	05/31/22 11:59	06/01/22 13:03	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1868835	1	05/25/22 10:18	05/26/22 09:20	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1867133	1	05/23/22 22:05	05/24/22 18:47	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-805 L1493814-05 GW

Collected by B. Coleman Collected date/time 05/12/22 14:45 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1867143	1	05/23/22 11:22	05/24/22 10:50	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866309	1	05/20/22 14:48	05/22/22 23:13	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866945	1	05/22/22 11:16	05/26/22 12:35	JPD	Mt. Juliet, TN



MW-806R L1493814-06 GW

Collected by B. Coleman Collected date/time 05/12/22 14:20 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1875187	1	06/07/22 00:29	06/07/22 00:29	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1868799	1	05/31/22 11:59	06/01/22 13:05	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1868835	1	05/25/22 10:18	05/26/22 09:22	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1867133	1	05/23/22 22:05	05/24/22 18:50	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1867143	1	05/23/22 11:22	05/24/22 10:52	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866309	1	05/20/22 14:48	05/22/22 23:16	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866945	1	05/22/22 11:16	05/26/22 12:39	JPD	Mt. Juliet, TN

DUPLICATE L1493814-07 GW

Collected by B. Coleman Collected date/time 05/12/22 00:00 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1875187	1	06/07/22 00:42	06/07/22 00:42	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1868799	1	05/31/22 11:59	06/01/22 13:07	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1867143	1	05/23/22 11:22	05/24/22 10:55	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1866945	1	05/22/22 11:16	05/26/22 12:42	JPD	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

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Fluoride	193		150	1	06/06/2022 22:30	WG1875187

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/01/2022 12:57	WG1868799
Mercury,Dissolved	ND		0.200	1	05/29/2022 10:43	WG1868829

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	161		5.00	1	05/24/2022 10:35	WG1867143
Barium,Dissolved	135		5.00	1	05/22/2022 20:53	WG1866308
Chromium	ND		10.0	1	05/24/2022 10:35	WG1867143
Chromium,Dissolved	ND		10.0	1	05/22/2022 20:53	WG1866308
Lithium	ND		15.0	1	05/24/2022 10:35	WG1867143
Lithium,Dissolved	17.7		15.0	1	05/22/2022 20:53	WG1866308
Molybdenum	ND		5.00	1	05/24/2022 10:35	WG1867143
Molybdenum,Dissolved	ND		5.00	1	05/22/2022 20:53	WG1866308

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2022 12:25	WG1866945
Antimony,Dissolved	ND		4.00	1	05/22/2022 23:03	WG1866309
Arsenic	2.60		2.00	1	05/26/2022 12:25	WG1866945
Arsenic,Dissolved	ND		2.00	1	05/22/2022 23:03	WG1866309
Beryllium	ND		2.00	1	05/26/2022 12:25	WG1866945
Beryllium,Dissolved	ND		2.00	1	05/22/2022 23:03	WG1866309
Cadmium	ND		1.00	1	05/26/2022 12:25	WG1866945
Cadmium,Dissolved	ND		1.00	1	05/22/2022 23:03	WG1866309
Cobalt	ND		2.00	1	05/26/2022 12:25	WG1866945
Cobalt,Dissolved	ND		2.00	1	05/22/2022 23:03	WG1866309
Lead	ND		2.00	1	05/26/2022 12:25	WG1866945
Lead,Dissolved	ND		2.00	1	05/22/2022 23:03	WG1866309
Selenium	ND		2.00	1	05/26/2022 12:25	WG1866945
Selenium,Dissolved	ND		2.00	1	05/22/2022 23:03	WG1866309
Thallium	ND		2.00	1	05/26/2022 12:25	WG1866945
Thallium,Dissolved	ND		2.00	1	05/22/2022 23:03	WG1866309

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Fluoride	169		150	1	06/06/2022 22:43	WG1875187

Mercury by Method 7470A

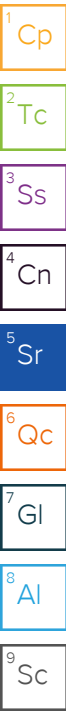
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/01/2022 12:59	WG1868799
Mercury,Dissolved	ND		0.200	1	05/29/2022 10:45	WG1868829

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	476		5.00	1	05/24/2022 10:44	WG1867143
Barium,Dissolved	162		5.00	1	05/22/2022 21:46	WG1866308
Chromium	10.9		10.0	1	05/24/2022 10:44	WG1867143
Chromium,Dissolved	ND		10.0	1	05/22/2022 21:46	WG1866308
Lithium	ND		15.0	1	05/24/2022 10:44	WG1867143
Lithium,Dissolved	ND		15.0	1	05/22/2022 21:46	WG1866308
Molybdenum	ND		5.00	1	05/24/2022 10:44	WG1867143
Molybdenum,Dissolved	ND		5.00	1	05/22/2022 21:46	WG1866308

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2022 12:29	WG1866945
Antimony,Dissolved	ND		4.00	1	05/22/2022 23:07	WG1866309
Arsenic	13.9		2.00	1	05/26/2022 12:29	WG1866945
Arsenic,Dissolved	ND		2.00	1	05/22/2022 23:07	WG1866309
Beryllium	ND		2.00	1	05/26/2022 12:29	WG1866945
Beryllium,Dissolved	ND		2.00	1	05/22/2022 23:07	WG1866309
Cadmium	1.15		1.00	1	05/26/2022 12:29	WG1866945
Cadmium,Dissolved	ND		1.00	1	05/22/2022 23:07	WG1866309
Cobalt	11.1		2.00	1	05/26/2022 12:29	WG1866945
Cobalt,Dissolved	ND		2.00	1	05/22/2022 23:07	WG1866309
Lead	13.4		2.00	1	05/26/2022 12:29	WG1866945
Lead,Dissolved	ND		2.00	1	05/22/2022 23:07	WG1866309
Selenium	ND		2.00	1	05/26/2022 12:29	WG1866945
Selenium,Dissolved	ND		2.00	1	05/22/2022 23:07	WG1866309
Thallium	ND		2.00	1	05/26/2022 12:29	WG1866945
Thallium,Dissolved	ND		2.00	1	05/22/2022 23:07	WG1866309



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Fluoride	277		150	1	06/06/2022 22:56	WG1875187

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/01/2022 13:01	WG1868799
Mercury,Dissolved	ND		0.200	1	05/29/2022 10:46	WG1868829

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	148		5.00	1	05/24/2022 10:47	WG1867143
Barium,Dissolved	120		5.00	1	05/22/2022 21:54	WG1866308
Chromium	ND		10.0	1	05/24/2022 10:47	WG1867143
Chromium,Dissolved	ND		10.0	1	05/22/2022 21:54	WG1866308
Lithium	ND		15.0	1	05/24/2022 10:47	WG1867143
Lithium,Dissolved	15.4		15.0	1	05/22/2022 21:54	WG1866308
Molybdenum	ND		5.00	1	05/24/2022 10:47	WG1867143
Molybdenum,Dissolved	ND		5.00	1	05/22/2022 21:54	WG1866308

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2022 12:32	WG1866945
Antimony,Dissolved	ND		4.00	1	05/22/2022 23:10	WG1866309
Arsenic	4.60		2.00	1	05/26/2022 12:32	WG1866945
Arsenic,Dissolved	2.04		2.00	1	05/22/2022 23:10	WG1866309
Beryllium	ND		2.00	1	05/26/2022 12:32	WG1866945
Beryllium,Dissolved	ND		2.00	1	05/22/2022 23:10	WG1866309
Cadmium	ND		1.00	1	05/26/2022 12:32	WG1866945
Cadmium,Dissolved	ND		1.00	1	05/22/2022 23:10	WG1866309
Cobalt	ND		2.00	1	05/26/2022 12:32	WG1866945
Cobalt,Dissolved	ND		2.00	1	05/22/2022 23:10	WG1866309
Lead	ND		2.00	1	05/26/2022 12:32	WG1866945
Lead,Dissolved	ND		2.00	1	05/22/2022 23:10	WG1866309
Selenium	ND		2.00	1	05/26/2022 12:32	WG1866945
Selenium,Dissolved	ND		2.00	1	05/22/2022 23:10	WG1866309
Thallium	ND		2.00	1	05/26/2022 12:32	WG1866945
Thallium,Dissolved	ND		2.00	1	05/22/2022 23:10	WG1866309

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Fluoride	226		150	1	06/06/2022 23:49	WG1875187

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/01/2022 12:38	WG1868799
Mercury,Dissolved	ND		0.200	1	05/26/2022 09:02	WG1868835

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	398		5.00	1	05/23/2022 14:27	WG1867144
Barium,Dissolved	362		5.00	1	05/24/2022 18:36	WG1867133
Chromium	ND		10.0	1	05/23/2022 14:27	WG1867144
Chromium,Dissolved	ND		10.0	1	05/24/2022 18:36	WG1867133
Lithium	21.4		15.0	1	05/23/2022 14:27	WG1867144
Lithium,Dissolved	24.2		15.0	1	05/24/2022 18:36	WG1867133
Molybdenum	ND		5.00	1	05/23/2022 14:27	WG1867144
Molybdenum,Dissolved	ND		5.00	1	05/24/2022 18:36	WG1867133

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/25/2022 20:42	WG1866945
Antimony,Dissolved	ND		4.00	1	05/22/2022 22:18	WG1866309
Arsenic	2.77		2.00	1	05/25/2022 20:42	WG1866945
Arsenic,Dissolved	ND		2.00	1	05/22/2022 22:18	WG1866309
Beryllium	ND		2.00	1	05/25/2022 20:42	WG1866945
Beryllium,Dissolved	ND		2.00	1	05/22/2022 22:18	WG1866309
Cadmium	ND		1.00	1	05/25/2022 20:42	WG1866945
Cadmium,Dissolved	ND		1.00	1	05/22/2022 22:18	WG1866309
Cobalt	ND		2.00	1	05/25/2022 20:42	WG1866945
Cobalt,Dissolved	ND		2.00	1	05/22/2022 22:18	WG1866309
Lead	ND		2.00	1	05/25/2022 20:42	WG1866945
Lead,Dissolved	ND		2.00	1	05/22/2022 22:18	WG1866309
Selenium	ND		2.00	1	05/25/2022 20:42	WG1866945
Selenium,Dissolved	ND		2.00	1	05/22/2022 22:18	WG1866309
Thallium	ND		2.00	1	05/25/2022 20:42	WG1866945
Thallium,Dissolved	ND		2.00	1	05/22/2022 22:18	WG1866309

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Fluoride	183		150	1	06/06/2022 23:09	WG1875187

Mercury by Method 7470A

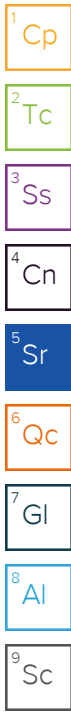
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/01/2022 13:03	WG1868799
Mercury,Dissolved	ND		0.200	1	05/26/2022 09:20	WG1868835

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	153		5.00	1	05/24/2022 10:50	WG1867143
Barium,Dissolved	148		5.00	1	05/24/2022 18:47	WG1867133
Chromium	ND		10.0	1	05/24/2022 10:50	WG1867143
Chromium,Dissolved	ND		10.0	1	05/24/2022 18:47	WG1867133
Lithium	ND		15.0	1	05/24/2022 10:50	WG1867143
Lithium,Dissolved	ND		15.0	1	05/24/2022 18:47	WG1867133
Molybdenum	ND		5.00	1	05/24/2022 10:50	WG1867143
Molybdenum,Dissolved	ND		5.00	1	05/24/2022 18:47	WG1867133

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2022 12:35	WG1866945
Antimony,Dissolved	ND		4.00	1	05/22/2022 23:13	WG1866309
Arsenic	ND		2.00	1	05/26/2022 12:35	WG1866945
Arsenic,Dissolved	ND		2.00	1	05/22/2022 23:13	WG1866309
Beryllium	ND		2.00	1	05/26/2022 12:35	WG1866945
Beryllium,Dissolved	ND		2.00	1	05/22/2022 23:13	WG1866309
Cadmium	ND		1.00	1	05/26/2022 12:35	WG1866945
Cadmium,Dissolved	ND		1.00	1	05/22/2022 23:13	WG1866309
Cobalt	ND		2.00	1	05/26/2022 12:35	WG1866945
Cobalt,Dissolved	ND		2.00	1	05/22/2022 23:13	WG1866309
Lead	ND		2.00	1	05/26/2022 12:35	WG1866945
Lead,Dissolved	ND		2.00	1	05/22/2022 23:13	WG1866309
Selenium	7.51		2.00	1	05/26/2022 12:35	WG1866945
Selenium,Dissolved	ND		2.00	1	05/22/2022 23:13	WG1866309
Thallium	ND		2.00	1	05/26/2022 12:35	WG1866945
Thallium,Dissolved	ND		2.00	1	05/22/2022 23:13	WG1866309



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Fluoride	185		150	1	06/07/2022 00:29	WG1875187

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/01/2022 13:05	WG1868799
Mercury,Dissolved	ND		0.200	1	05/26/2022 09:22	WG1868835

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	88.5		5.00	1	05/24/2022 10:52	WG1867143
Barium,Dissolved	90.4		5.00	1	05/24/2022 18:50	WG1867133
Chromium	ND		10.0	1	05/24/2022 10:52	WG1867143
Chromium,Dissolved	ND		10.0	1	05/24/2022 18:50	WG1867133
Lithium	17.7		15.0	1	05/24/2022 10:52	WG1867143
Lithium,Dissolved	20.5		15.0	1	05/24/2022 18:50	WG1867133
Molybdenum	1500		5.00	1	05/24/2022 10:52	WG1867143
Molybdenum,Dissolved	1440		5.00	1	05/24/2022 18:50	WG1867133

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2022 12:39	WG1866945
Antimony,Dissolved	ND		4.00	1	05/22/2022 23:16	WG1866309
Arsenic	ND		2.00	1	05/26/2022 12:39	WG1866945
Arsenic,Dissolved	ND		2.00	1	05/22/2022 23:16	WG1866309
Beryllium	ND		2.00	1	05/26/2022 12:39	WG1866945
Beryllium,Dissolved	ND		2.00	1	05/22/2022 23:16	WG1866309
Cadmium	ND		1.00	1	05/26/2022 12:39	WG1866945
Cadmium,Dissolved	ND		1.00	1	05/22/2022 23:16	WG1866309
Cobalt	ND		2.00	1	05/26/2022 12:39	WG1866945
Cobalt,Dissolved	ND		2.00	1	05/22/2022 23:16	WG1866309
Lead	ND		2.00	1	05/26/2022 12:39	WG1866945
Lead,Dissolved	ND		2.00	1	05/22/2022 23:16	WG1866309
Selenium	ND		2.00	1	05/26/2022 12:39	WG1866945
Selenium,Dissolved	ND		2.00	1	05/22/2022 23:16	WG1866309
Thallium	ND		2.00	1	05/26/2022 12:39	WG1866945
Thallium,Dissolved	ND		2.00	1	05/22/2022 23:16	WG1866309

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

DUPLICATE

SAMPLE RESULTS - 07

Collected date/time: 05/12/22 00:00

L1493814

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Fluoride	284		150	1	06/07/2022 00:42	WG1875187

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	06/01/2022 13:07	WG1868799

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	409		5.00	1	05/24/2022 10:55	WG1867143
Chromium	ND		10.0	1	05/24/2022 10:55	WG1867143
Lithium	20.5		15.0	1	05/24/2022 10:55	WG1867143
Molybdenum	ND		5.00	1	05/24/2022 10:55	WG1867143

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2022 12:42	WG1866945
Arsenic	2.47		2.00	1	05/26/2022 12:42	WG1866945
Beryllium	ND		2.00	1	05/26/2022 12:42	WG1866945
Cadmium	ND		1.00	1	05/26/2022 12:42	WG1866945
Cobalt	ND		2.00	1	05/26/2022 12:42	WG1866945
Lead	2.01		2.00	1	05/26/2022 12:42	WG1866945
Selenium	ND		2.00	1	05/26/2022 12:42	WG1866945
Thallium	ND		2.00	1	05/26/2022 12:42	WG1866945

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

Method Blank (MB)

(MB) R3800292-1 06/06/22 17:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Fluoride	U		64.0	150

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1492592-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1492592-01 06/06/22 17:59 • (DUP) R3800292-3 06/06/22 18:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Fluoride	ND	ND	10	0.000		15

L1494527-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1494527-01 06/07/22 02:54 • (DUP) R3800292-6 06/07/22 03:08

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

Laboratory Control Sample (LCS)

(LCS) R3800292-2 06/06/22 17:33

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Fluoride	8000	8710	109	80.0-120	

L1493814-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493814-04 06/06/22 23:49 • (MS) R3800292-4 06/07/22 00:02 • (MSD) R3800292-5 06/07/22 00:15

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Fluoride	5000	226	5400	5410	103	104	1	80.0-120			0.187	15

L1494527-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1494527-01 06/07/22 02:54 • (MS) R3800292-7 06/07/22 03:21

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Fluoride	5000	ND	5350	107	1	80.0-120	

Method Blank (MB)

(MB) R3798176-1 06/01/22 12:34

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) R3798176-2 06/01/22 12:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	3.18	106	80.0-120	

4 Cn

5 Sr

L1493814-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493814-04 06/01/22 12:38 • (MS) R3798176-3 06/01/22 12:40 • (MSD) R3798176-4 06/01/22 12:42

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	3.18	3.10	106	103	1	75.0-125			2.40	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3797290-1 05/29/22 10:15

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

Laboratory Control Sample (LCS)

(LCS) R3797290-2 05/29/22 10:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	3.00	2.78	92.7	80.0-120	

L1493927-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493927-04 05/29/22 10:19 • (MS) R3797290-3 05/29/22 10:21 • (MSD) R3797290-4 05/29/22 10:23

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,Dissolved	3.00	ND	2.66	2.69	88.5	89.5	1	75.0-125			1.10	20

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

Method Blank (MB)

(MB) R3796248-1 05/26/22 08:59

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

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3796248-2 05/26/22 09:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	3.00	3.21	107	80.0-120	

4 Cn

5 Sr

L1493814-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493814-04 05/26/22 09:02 • (MS) R3796248-3 05/26/22 09:06 • (MSD) R3796248-4 05/26/22 09:08

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 %
Mercury,Dissolved	3.00	ND	3.09	3.01	103	100	1	75.0-125			2.47	20

6 Qc

7 Gl

8 Al

L1495957-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1495957-06 05/26/22 09:10 • (MS) R3796248-5 05/26/22 09:12 • (MSD) R3796248-6 05/26/22 09:18

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,Dissolved	3.00	ND	3.19	3.07	106	102	1	75.0-125			3.61	20

9 Sc

Method Blank (MB)

(MB) R3794736-1 05/22/22 20:48

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium,Dissolved	U		0.736	5.00
Chromium,Dissolved	U		1.40	10.0
Lithium,Dissolved	U		4.85	15.0
Molybdenum,Dissolved	U		1.16	5.00

Laboratory Control Sample (LCS)

(LCS) R3794736-2 05/22/22 20:51

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium,Dissolved	1000	977	97.7	80.0-120	
Chromium,Dissolved	1000	927	92.7	80.0-120	
Lithium,Dissolved	1000	954	95.4	80.0-120	
Molybdenum,Dissolved	1000	968	96.8	80.0-120	

L1493814-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493814-01 05/22/22 20:53 • (MS) R3794736-4 05/22/22 20:59 • (MSD) R3794736-5 05/22/22 21:01

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 %
Barium,Dissolved	1000	135	1090	1090	95.2	95.2	1	75.0-125			0.0286	20
Chromium,Dissolved	1000	ND	915	917	91.5	91.7	1	75.0-125			0.176	20
Lithium,Dissolved	1000	17.7	976	978	95.8	96.0	1	75.0-125			0.225	20
Molybdenum,Dissolved	1000	ND	968	969	96.8	96.9	1	75.0-125			0.124	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3795567-1 05/24/22 18:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Barium,Dissolved	U		0.736	5.00
Chromium,Dissolved	U		1.40	10.0
Lithium,Dissolved	U		4.85	15.0
Molybdenum,Dissolved	U		1.16	5.00

Laboratory Control Sample (LCS)

(LCS) R3795567-2 05/24/22 18:33

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Barium,Dissolved	1000	1020	102	80.0-120	
Chromium,Dissolved	1000	936	93.6	80.0-120	
Lithium,Dissolved	1000	980	98.0	80.0-120	
Molybdenum,Dissolved	1000	924	92.4	80.0-120	

L1493814-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493814-04 05/24/22 18:36 • (MS) R3795567-4 05/24/22 18:41 • (MSD) R3795567-5 05/24/22 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
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Barium,Dissolved	1000	362	1350	1360	98.4	99.6	1	75.0-125			0.923	20
Chromium,Dissolved	1000	ND	922	931	92.2	93.1	1	75.0-125			0.936	20
Lithium,Dissolved	1000	24.2	1010	1020	98.3	99.7	1	75.0-125			1.38	20
Molybdenum,Dissolved	1000	ND	926	929	92.4	92.7	1	75.0-125			0.369	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3795574-1 05/24/22 09:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	U		0.736	5.00
Chromium	U		1.40	10.0
Lithium	U		4.85	15.0
Molybdenum	U		1.16	5.00

Laboratory Control Sample (LCS)

(LCS) R3795574-2 05/24/22 09:34

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	969	96.9	80.0-120	
Chromium	1000	959	95.9	80.0-120	
Lithium	1000	937	93.7	80.0-120	
Molybdenum	1000	982	98.2	80.0-120	

L1493787-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493787-28 05/24/22 09:39 • (MS) R3795574-4 05/24/22 09:45 • (MSD) R3795574-5 05/24/22 09:48

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	35.6	989	997	95.3	96.1	1	75.0-125			0.793	20
Chromium	1000	ND	949	957	94.7	95.5	1	75.0-125			0.813	20
Lithium	1000	199	1230	1230	103	103	1	75.0-125			0.0402	20
Molybdenum	1000	ND	979	991	97.9	99.1	1	75.0-125			1.19	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3795024-1 05/23/22 14:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	U		0.736	5.00
Chromium	U		1.40	10.0
Lithium	U		4.85	15.0
Molybdenum	U		1.16	5.00

Laboratory Control Sample (LCS)

(LCS) R3795024-2 05/23/22 14:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	928	92.8	80.0-120	
Chromium	1000	930	93.0	80.0-120	
Lithium	1000	936	93.6	80.0-120	
Molybdenum	1000	912	91.2	80.0-120	

L1493814-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493814-04 05/23/22 14:27 • (MS) R3795024-4 05/23/22 14:32 • (MSD) R3795024-5 05/23/22 14:35

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	398	1300	1290	90.3	89.1	1	75.0-125			0.932	20
Chromium	1000	ND	917	910	91.5	90.8	1	75.0-125			0.766	20
Lithium	1000	21.4	975	982	95.3	96.1	1	75.0-125			0.770	20
Molybdenum	1000	ND	929	915	92.9	91.5	1	75.0-125			1.53	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3794692-1 05/22/22 22:11

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

Laboratory Control Sample (LCS)

(LCS) R3794692-2 05/22/22 22:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Antimony,Dissolved	50.0	46.6	93.2	80.0-120	
Arsenic,Dissolved	50.0	49.0	98.0	80.0-120	
Beryllium,Dissolved	50.0	47.8	95.6	80.0-120	
Cadmium,Dissolved	50.0	51.4	103	80.0-120	
Cobalt,Dissolved	50.0	50.9	102	80.0-120	
Lead,Dissolved	50.0	48.4	96.9	80.0-120	
Selenium,Dissolved	50.0	47.5	95.1	80.0-120	
Thallium,Dissolved	50.0	48.1	96.2	80.0-120	

⁷Gl

⁸Al

⁹Sc

L1493814-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493814-04 05/22/22 22:18 • (MS) R3794692-4 05/22/22 22:24 • (MSD) R3794692-5 05/22/22 22:28

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,Dissolved	50.0	ND	48.1	48.1	96.3	96.1	1	75.0-125			0.135	20
Arsenic,Dissolved	50.0	ND	49.1	48.5	96.5	95.2	1	75.0-125			1.34	20
Beryllium,Dissolved	50.0	ND	47.2	47.4	94.4	94.8	1	75.0-125			0.497	20
Cadmium,Dissolved	50.0	ND	51.1	50.1	102	100	1	75.0-125			2.03	20
Cobalt,Dissolved	50.0	ND	49.2	49.2	98.0	98.1	1	75.0-125			0.0565	20
Lead,Dissolved	50.0	ND	49.1	48.0	98.2	96.1	1	75.0-125			2.14	20
Selenium,Dissolved	50.0	ND	48.3	48.5	96.5	97.0	1	75.0-125			0.501	20
Thallium,Dissolved	50.0	ND	48.0	47.3	96.0	94.5	1	75.0-125			1.56	20

Method Blank (MB)

(MB) R3796356-1 05/25/22 20:35

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
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

Laboratory Control Sample (LCS)

(LCS) R3796356-2 05/25/22 20:39

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Antimony	50.0	50.5	101	80.0-120	
Arsenic	50.0	50.6	101	80.0-120	
Beryllium	50.0	55.8	112	80.0-120	
Cadmium	50.0	56.4	113	80.0-120	
Cobalt	50.0	53.1	106	80.0-120	
Lead	50.0	52.2	104	80.0-120	
Selenium	50.0	51.3	103	80.0-120	
Thallium	50.0	49.3	98.5	80.0-120	

⁷Gl

⁸Al

⁹Sc

L1493814-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493814-04 05/25/22 20:42 • (MS) R3796356-4 05/25/22 20:49 • (MSD) R3796356-5 05/25/22 20:52

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	46.7	49.8	93.4	99.7	1	75.0-125			6.53	20
Arsenic	50.0	2.77	52.1	55.1	98.6	105	1	75.0-125			5.59	20
Beryllium	50.0	ND	56.7	57.2	113	114	1	75.0-125			0.844	20
Cadmium	50.0	ND	56.1	58.4	112	117	1	75.0-125			3.90	20
Cobalt	50.0	ND	52.3	55.6	103	109	1	75.0-125			6.05	20
Lead	50.0	ND	54.5	54.4	105	105	1	75.0-125			0.217	20
Selenium	50.0	ND	51.1	50.6	102	101	1	75.0-125			0.857	20
Thallium	50.0	ND	49.8	50.2	99.7	100	1	75.0-125			0.768	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.

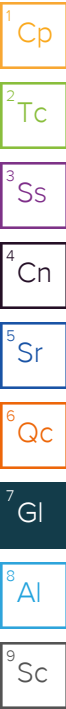
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

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.



5/14-NCF-L1493814 AQUAOPKS

R5

Time estimate: oh Time spent: oh

Members

- Hailey Melson (responsible)
- Jeffrey A. Carr

Due on 18 May 2022 8:00 AM for target Done

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

Comments

- Hailey Melson 14 May 2022 7:25 PM

What Diss. Metals for IDs: MW-801, 802, 803, 804, 805, 806R
- Jeffrey A. Carr 15 May 2022 8:54 AM

L1493814-01 thru -06 - Add ASDG, BADICP, BEDG, CDDG, CODG, CRDICP, HGD, LIDICP, MODICP, PBDG, SBDG, SEDG and TLDG.
- Matthew Shacklock 16 May 2022 4:50 PM

Done

SCS Engineers - KS

Sample Delivery Group: L1493822
Samples Received: 05/14/2022
Project Number: 27213169.22-B
Description: Evergy - Sibley Gen Station

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

Entire Report Reviewed By:

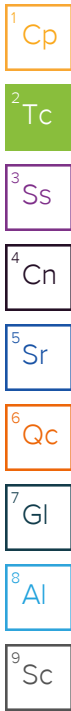


Jeff Carr
Project Manager

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
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
801 L1493822-01	6
802 L1493822-02	7
803 L1493822-03	8
804 L1493822-04	9
805 L1493822-05	10
806R L1493822-06	11
DUPLICATE L1493822-07	12
Qc: Quality Control Summary	13
Radiochemistry by Method 904/9320	13
Radiochemistry by Method SM7500Ra B M	14
Gl: Glossary of Terms	15
Al: Accreditations & Locations	16
Sc: Sample Chain of Custody	17

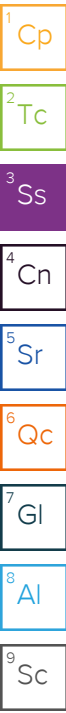


SAMPLE SUMMARY

801 L1493822-01 Non-Potable Water

Collected by B. Coleman Collected date/time 05/12/22 13:10 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1863170	1	05/24/22 09:07	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1864504	1	05/16/22 14:53	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1864504	1	05/16/22 14:53	05/21/22 12:05	RGT	Mt. Juliet, TN



802 L1493822-02 Non-Potable Water

Collected by B. Coleman Collected date/time 05/12/22 13:45 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1863170	1	05/24/22 09:07	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1864504	1	05/16/22 14:53	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1864504	1	05/16/22 14:53	05/21/22 12:05	RGT	Mt. Juliet, TN

803 L1493822-03 Non-Potable Water

Collected by B. Coleman Collected date/time 05/12/22 14:55 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1863170	1	05/24/22 09:07	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1864504	1	05/16/22 14:53	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1864504	1	05/16/22 14:53	05/21/22 12:05	RGT	Mt. Juliet, TN

804 L1493822-04 Non-Potable Water

Collected by B. Coleman Collected date/time 05/12/22 15:15 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1863170	1	05/24/22 09:07	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1864504	1	05/16/22 14:53	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1864504	1	05/16/22 14:53	05/21/22 12:05	RGT	Mt. Juliet, TN

805 L1493822-05 Non-Potable Water

Collected by B. Coleman Collected date/time 05/12/22 14:45 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1863170	1	05/24/22 09:07	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1864504	1	05/16/22 14:53	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1864504	1	05/16/22 14:53	05/21/22 12:05	RGT	Mt. Juliet, TN

806R L1493822-06 Non-Potable Water

Collected by B. Coleman Collected date/time 05/12/22 14:20 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1863170	1	05/24/22 09:07	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1864504	1	05/16/22 14:53	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1864504	1	05/16/22 14:53	05/21/22 12:06	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

DUPLICATE L1493822-07 Non-Potable Water

Collected by: B. Coleman
 Collected date/time: 05/12/22 00:00
 Received date/time: 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1863170	1	05/24/22 09:07	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1864504	1	05/16/22 14:53	06/02/22 15:45	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1864504	1	05/16/22 14:53	05/21/22 12:06	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	0.229	J	0.196	0.364	06/02/2022 15:45	WG1863170
(T) Barium	107			62.0-143	06/02/2022 15:45	WG1863170
(T) Yttrium	84.5			79.0-136	06/02/2022 15:45	WG1863170

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.369	J	0.276	0.462	06/02/2022 15:45	WG1864504

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.139	J	0.195	0.285	05/21/2022 12:05	WG1864504
(T) Barium-133	94.5			30.0-143	05/21/2022 12:05	WG1864504

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	0.471		0.193	0.348	06/02/2022 15:45	WG1863170
(T) Barium	96.6			62.0-143	06/02/2022 15:45	WG1863170
(T) Yttrium	110			79.0-136	06/02/2022 15:45	WG1863170

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	1.29		0.486	0.491	06/02/2022 15:45	WG1864504

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	0.817		0.446	0.347	05/21/2022 12:05	WG1864504
(T) Barium-133	83.7			30.0-143	05/21/2022 12:05	WG1864504

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	0.503		0.182	0.327	06/02/2022 15:45	WG1863170
(T) Barium	98.0			62.0-143	06/02/2022 15:45	WG1863170
(T) Yttrium	117			79.0-136	06/02/2022 15:45	WG1863170

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	0.770		0.308	0.432	06/02/2022 15:45	WG1864504

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	0.267	J	0.249	0.283	05/21/2022 12:05	WG1864504
(T) Barium-133	96.1			30.0-143	05/21/2022 12:05	WG1864504

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	0.544		0.180	0.321	06/02/2022 15:45	WG1863170
(T) Barium	106			62.0-143	06/02/2022 15:45	WG1863170
(T) Yttrium	111			79.0-136	06/02/2022 15:45	WG1863170

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	0.661		0.309	0.522	06/02/2022 15:45	WG1864504

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	0.117	<u>U</u>	0.251	0.412	05/21/2022 12:05	WG1864504
(T) Barium-133	81.4			30.0-143	05/21/2022 12:05	WG1864504

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	0.583		0.180	0.320	06/02/2022 15:45	WG1863170
(T) Barium	101			62.0-143	06/02/2022 15:45	WG1863170
(T) Yttrium	111			79.0-136	06/02/2022 15:45	WG1863170

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	0.922		0.335	0.408	06/02/2022 15:45	WG1864504

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	0.339		0.282	0.253	05/21/2022 12:05	WG1864504
(T) Barium-133	80.6			30.0-143	05/21/2022 12:05	WG1864504

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	0.221	J	0.201	0.373	06/02/2022 15:45	WG1863170
(T) Barium	88.8			62.0-143	06/02/2022 15:45	WG1863170
(T) Yttrium	104			79.0-136	06/02/2022 15:45	WG1863170

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.253	J	0.246	0.465	06/02/2022 15:45	WG1864504

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0324	U	0.142	0.278	05/21/2022 12:06	WG1864504
(T) Barium-133	99.8			30.0-143	05/21/2022 12:06	WG1864504

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	1.04		0.193	0.328	06/02/2022 15:45	WG1863170
(T) Barium	106			62.0-143	06/02/2022 15:45	WG1863170
(T) Yttrium	109			79.0-136	06/02/2022 15:45	WG1863170

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	1.36		0.310	0.419	06/02/2022 15:45	WG1864504

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	0.318		0.243	0.261	05/21/2022 12:06	WG1864504
(T) Barium-133	102			30.0-143	05/21/2022 12:06	WG1864504

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3799185-1 06/01/22 11:51

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.278		0.124	0.224
(T) Barium	102		102	
(T) Yttrium	116		116	

L1486242-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1486242-01 06/02/22 15:45 • (DUP) R3799185-5 06/01/22 11:51

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	0.871	0.377	0.650	0.844	0.441	0.650	1	3.08	0.0455		20	3
(T) Barium	106			102	102							
(T) Yttrium	104			106	106							

Laboratory Control Sample (LCS)

(LCS) R3799185-2 06/01/22 11:51

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.68	93.7	80.0-120	
(T) Barium			98.1		
(T) Yttrium			106		

L1493822-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493822-04 06/02/22 15:45 • (MS) R3799185-3 06/01/22 11:51 • (MSD) R3799185-4 06/01/22 11:51

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	0.544	9.14	9.63	86.0	90.9	1	70.0-130			5.23		20
(T) Barium		106			98.6	90.1							
(T) Yttrium		111			101	117							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3795032-1 05/21/22 12:05

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	0.00734	<u>U</u>	0.0405	0.0802
(T) Barium-133	96.2		96.2	

L1490847-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1490847-01 05/21/22 12:05 • (DUP) R3795032-5 05/21/22 12:05

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	0.283	0.316	0.420	0.0397	0.0982	0.420	1	151	0.734	<u>U</u>	20	3
(T) Barium-133				86.5	86.5							

Laboratory Control Sample (LCS)

(LCS) R3795032-2 05/21/22 12:05

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.02	5.13	102	80.0-120	
(T) Barium-133			96.6		

L1493822-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493822-04 05/21/22 12:05 • (MS) R3795032-3 05/21/22 12:05 • (MSD) R3795032-4 05/21/22 12:05

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	0.117	20.2	19.7	100	97.9	1	75.0-125			2.26		20
(T) Barium-133		81.4			98.0	97.4							

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.



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: L1493839
Samples Received: 05/14/2022
Project Number: 27213162.00-2
Description: Evergy - Sibley Generating Station
Site: FAI ACM 2022
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-807 L1493839-01	6	
MW-808 L1493839-02	7	
MW-809 L1493839-03	8	
MW-810 L1493839-04	9	
MW-811 L1493839-05	10	6 Qc
MW-812 L1493839-06	11	
MW-813 L1493839-07	12	7 Gl
MW-814 L1493839-08	13	8 Al
Qc: Quality Control Summary	14	
Metals (ICP) by Method 6010D	14	9 Sc
Gl: Glossary of Terms	17	
Al: Accreditations & Locations	18	
Sc: Sample Chain of Custody	19	

SAMPLE SUMMARY

MW-807 L1493839-01 GW

Collected by B. Coleman Collected date/time 05/13/22 12:00 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1864765	1	05/16/22 23:33	05/17/22 10:49	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864766	1	05/16/22 22:22	05/17/22 09:32	ZSA	Mt. Juliet, TN



MW-808 L1493839-02 GW

Collected by B. Coleman Collected date/time 05/13/22 11:20 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1864765	1	05/16/22 23:33	05/17/22 10:51	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864766	1	05/16/22 22:22	05/17/22 10:24	ZSA	Mt. Juliet, TN

MW-809 L1493839-03 GW

Collected by B. Coleman Collected date/time 05/13/22 16:00 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1864765	1	05/16/22 23:33	05/17/22 10:59	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864766	1	05/16/22 22:22	05/17/22 10:27	ZSA	Mt. Juliet, TN

MW-810 L1493839-04 GW

Collected by B. Coleman Collected date/time 05/13/22 16:40 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1864765	1	05/16/22 23:33	05/17/22 11:02	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864766	1	05/16/22 22:22	05/17/22 10:36	ZSA	Mt. Juliet, TN

MW-811 L1493839-05 GW

Collected by B. Coleman Collected date/time 05/13/22 17:15 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1864765	1	05/16/22 23:33	05/17/22 09:59	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864766	1	05/16/22 22:22	05/17/22 10:39	ZSA	Mt. Juliet, TN

MW-812 L1493839-06 GW

Collected by B. Coleman Collected date/time 05/13/22 17:25 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1864766	1	05/16/22 22:22	05/17/22 10:42	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1865409	1	05/18/22 22:29	05/19/22 14:37	ZSA	Mt. Juliet, TN

MW-813 L1493839-07 GW

Collected by B. Coleman Collected date/time 05/13/22 16:45 Received date/time 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1864765	1	05/16/22 23:33	05/17/22 11:04	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864766	1	05/16/22 22:22	05/17/22 10:44	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-814 L1493839-08 GW

Collected by: B. Coleman
 Collected date/time: 05/13/22 16:15
 Received date/time: 05/14/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1864765	1	05/16/22 23:33	05/17/22 11:07	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864766	1	05/16/22 22:22	05/17/22 10:47	ZSA	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	10.2		5.00	1	05/17/2022 10:49	WG1864765
Molybdenum,Dissolved	6.83	<u>B</u>	5.00	1	05/17/2022 09:32	WG1864766

- 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	05/17/2022 10:51	WG1864765
Molybdenum,Dissolved	ND		5.00	1	05/17/2022 10:24	WG1864766

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	405		5.00	1	05/17/2022 10:59	WG1864765
Molybdenum,Dissolved	422		5.00	1	05/17/2022 10:27	WG1864766

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	59.2		5.00	1	05/17/2022 11:02	WG1864765
Molybdenum,Dissolved	50.6		5.00	1	05/17/2022 10:36	WG1864766

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	27.4		5.00	1	05/17/2022 09:59	WG1864765
Molybdenum,Dissolved	27.9		5.00	1	05/17/2022 10:39	WG1864766

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

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Molybdenum	12.6		5.00	1	05/19/2022 14:37	WG1865409
Molybdenum,Dissolved	6.81	<u>B</u>	5.00	1	05/17/2022 10:42	WG1864766

- 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	05/17/2022 11:04	WG1864765
Molybdenum,Dissolved	ND		5.00	1	05/17/2022 10:44	WG1864766

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	12.7		5.00	1	05/17/2022 11:07	WG1864765
Molybdenum,Dissolved	12.9	<u>B</u>	5.00	1	05/17/2022 10:47	WG1864766

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

Method Blank (MB)

(MB) R3792725-1 05/17/22 09:54

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) R3792725-2 05/17/22 09:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	1000	100	80.0-120	

4 Cn

5 Sr

L1493839-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493839-05 05/17/22 09:59 • (MS) R3792725-4 05/17/22 10:04 • (MSD) R3792725-5 05/17/22 10:07

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	27.4	1040	1050	101	102	1	75.0-125			1.00	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3792931-1 05/17/22 09:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Molybdenum,Dissolved	1.44	↓	1.16	5.00

¹Cp

²Tc

³Ss

Laboratory Control Sample (LCS)

(LCS) R3792931-2 05/17/22 09:29

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Molybdenum,Dissolved	1000	1030	103	80.0-120	

⁴Cn

⁵Sr

L1493839-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493839-01 05/17/22 09:32 • (MS) R3792931-4 05/17/22 09:37 • (MSD) R3792931-5 05/17/22 09:40

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Molybdenum,Dissolved	1000	6.83	1050	1050	104	104	1	75.0-125			0.170	20

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3793931-1 05/19/22 12:23

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) R3793931-2 05/19/22 12:26

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Molybdenum	1000	1050	105	80.0-120	

4 Cn

5 Sr

L1492694-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492694-21 05/19/22 12:29 • (MS) R3793931-4 05/19/22 12:34 • (MSD) R3793931-5 05/19/22 12:37

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	ND	1060	1060	106	106	1	75.0-125			0.0340	20

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

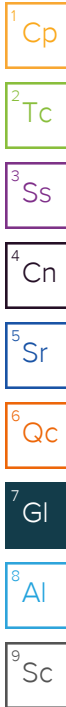
Guide to Reading and Understanding Your Laboratory Report

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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.



ACCREDITATIONS & LOCATIONS

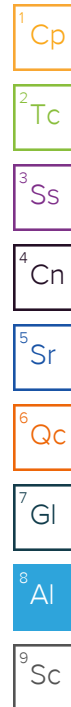
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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: L1506574
Samples Received: 06/17/2022
Project Number: 27213169.22 - 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:



John Hawkins
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	4	4 Cn
Sr: Sample Results	5	5 Sr
MW-802 L1506574-01	5	
Qc: Quality Control Summary	6	6 Qc
Metals (ICPMS) by Method 6020	6	
Gl: Glossary of Terms	8	7 Gl
Al: Accreditations & Locations	9	8 Al
Sc: Sample Chain of Custody	10	9 Sc

SAMPLE SUMMARY

MW-802 L1506574-01 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/15/22 11:10
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1887167	1	07/06/22 20:49	07/07/22 21:45	JDG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1889841	1	07/05/22 23:53	07/06/22 14:50	JPD	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.



John Hawkins
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	07/07/2022 21:45	WG1887167
Arsenic,Dissolved	ND		2.00	1	07/06/2022 14:50	WG1889841
Cobalt	ND		2.00	1	07/07/2022 21:45	WG1887167
Cobalt,Dissolved	ND		2.00	1	07/06/2022 14:50	WG1889841

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

Method Blank (MB)

(MB) R3812303-1 07/07/22 19:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Arsenic	U		0.180	2.00
Cobalt	U		0.0596	2.00

¹Cp

²Tc

³Ss

Laboratory Control Sample (LCS)

(LCS) R3812303-2 07/07/22 19:48

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Arsenic	50.0	47.5	95.0	80.0-120	
Cobalt	50.0	48.4	96.8	80.0-120	

⁴Cn

⁵Sr

⁶Qc

L1506569-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1506569-03 07/07/22 19:52 • (MS) R3812303-4 07/07/22 19:59 • (MSD) R3812303-5 07/07/22 20:03

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	%	%		%			%	%
Arsenic	50.0	ND	46.2	50.6	92.3	101	1	75.0-125			9.23	20
Cobalt	50.0	2.12	48.9	53.7	93.6	103	1	75.0-125			9.25	20

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3811520-1 07/06/22 14:42

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Arsenic,Dissolved	U		0.180	2.00
Cobalt,Dissolved	U		0.0596	2.00

Laboratory Control Sample (LCS)

(LCS) R3811520-2 07/06/22 14:46

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Arsenic,Dissolved	50.0	46.6	93.2	80.0-120	
Cobalt,Dissolved	50.0	48.2	96.5	80.0-120	

L1506574-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1506574-01 07/06/22 14:50 • (MS) R3811520-4 07/06/22 14:57 • (MSD) R3811520-5 07/06/22 15:01

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	%	%		%			%	%
Arsenic,Dissolved	50.0	ND	46.6	45.4	91.3	89.0	1	75.0-125			2.52	20
Cobalt,Dissolved	50.0	ND	45.6	45.1	91.3	90.2	1	75.0-125			1.13	20

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.

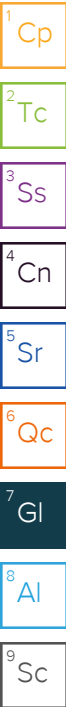
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Report to:
Jason Franks

Project Description:
Evergy Sibley Gen Station GW 2022-23

Phone: **913-681-0030**

Collected by (print):
Matt VanderPutten

Collected by (signature):
Matt VanderPutten

Immediately Packed on Ice N ___ Y **X**

Billing Information:

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

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

City/State Collected: **Sibley MO**

Please Circle:
PT MT **ET**

Client Project #
27213169.22 - I

Lab Project #
AQUAOPKS-SIBLEY

Site/Facility ID #

P.O. #

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

5/10

No. of Cntrs

Diss. As, Co - 6020 250mlHDPE-HNO3

Total As, Co - 6020 250mlHDPE-HNO3

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



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 #

**1506574
H029**

Tab

Acctnum: **AQUAOPKS**

Template: **T211124**

Prelogin: **P931588**

PM: **206 - Jeff Carr**

PB:

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

no

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs												
MW-802	<i>Grab</i>	GW		<i>6/15/22</i>	<i>1110</i>	2	X	X										

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

Remarks: **Dissolved Metals Field Filtered.**

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
___ UPS ___ **FedEx** ___ Courier

Tracking # **S300 4294 3467**

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 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

Relinquished by: (Signature)
Matt VanderPutten

Date: **06/16/22** Time: **1430**

Received by: (Signature)

Trip Blank Received: Yes (No) **0**
HCL / MeOH TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: °C **5.1 ± 0 = 5.1** Bottles Received: **2**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)
Zac Paris

Date: **6-17-22** Time: **09:00**

Hold: Condition: **NCF 10X**

SCS Engineers - KS

Sample Delivery Group: L1506588
Samples Received: 06/17/2022
Project Number: 27222162.00 - 5
Description: Evergy - Sibley Generating Station
Site: FAI ACM 2022
Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

Entire Report Reviewed By:



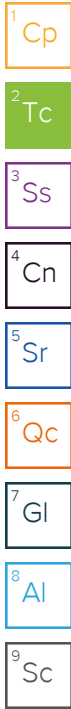
John Hawkins
Project Manager

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-802 L1506588-01	6
MW-806R L1506588-02	7
MW-807 L1506588-03	8
MW-808 L1506588-04	9
MW-809 L1506588-05	10
MW-810 L1506588-06	11
MW-811 L1506588-07	12
MW-812 L1506588-08	13
MW-813 L1506588-09	14
MW-814 L1506588-10	15
DUPLICATE L1506588-11	16
Qc: Quality Control Summary	17
Metals (ICP) by Method 6010D	17
Gl: Glossary of Terms	19
Al: Accreditations & Locations	20
Sc: Sample Chain of Custody	21



SAMPLE SUMMARY

MW-802 L1506588-01 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/15/22 11:10
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887149	1	07/05/22 15:01	07/08/22 00:40	CCE	Mt. Juliet, TN



MW-806R L1506588-02 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/15/22 13:50
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887149	1	07/05/22 15:01	07/08/22 00:43	CCE	Mt. Juliet, TN

MW-807 L1506588-03 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/15/22 13:00
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887150	1	07/05/22 15:30	07/07/22 20:01	ZSA	Mt. Juliet, TN

MW-808 L1506588-04 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/15/22 12:15
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887149	1	07/05/22 15:01	07/07/22 23:25	CCE	Mt. Juliet, TN

MW-809 L1506588-05 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/15/22 14:45
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887149	1	07/05/22 15:01	07/07/22 23:28	CCE	Mt. Juliet, TN

MW-810 L1506588-06 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/15/22 15:45
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887149	1	07/05/22 15:01	07/07/22 23:30	CCE	Mt. Juliet, TN

MW-811 L1506588-07 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/16/22 10:15
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887149	1	07/05/22 15:01	07/07/22 23:33	CCE	Mt. Juliet, TN

MW-812 L1506588-08 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/16/22 11:15
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887149	1	07/05/22 15:01	07/07/22 23:36	CCE	Mt. Juliet, TN

SAMPLE SUMMARY

MW-813 L1506588-09 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/16/22 12:15
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887150	1	07/05/22 15:30	07/07/22 20:49	ZSA	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

MW-814 L1506588-10 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/16/22 13:00
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887150	1	07/05/22 15:30	07/07/22 20:52	ZSA	Mt. Juliet, TN

⁴ Cn

⁵ Sr

DUPLICATE L1506588-11 GW

Collected by: Matt Vander Patton
 Collected date/time: 06/15/22 13:00
 Received date/time: 06/17/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1887150	1	07/05/22 15:30	07/07/22 21:00	ZSA	Mt. Juliet, TN

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.



John Hawkins
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	ND		5.00	1	07/08/2022 00:40	WG1887149

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	1510		5.00	1	07/08/2022 00:43	WG1887149

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	7.50		5.00	1	07/07/2022 20:01	WG1887150

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	319		5.00	1	07/07/2022 23:25	WG1887149

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	66.1		5.00	1	07/07/2022 23:28	WG1887149

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	18.0		5.00	1	07/07/2022 23:30	WG1887149

- 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	07/07/2022 23:33	WG1887149

- 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	07/07/2022 23:36	WG1887149

- 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	7.23		5.00	1	07/07/2022 20:49	WG1887150

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	7.05		5.00	1	07/07/2022 20:52	WG1887150

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	7.72		5.00	1	07/07/2022 21:00	WG1887150

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

Method Blank (MB)

(MB) R3812265-1 07/07/22 23:44

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

¹Cp

²Tc

³Ss

Laboratory Control Sample (LCS)

(LCS) R3812265-2 07/07/22 23:47

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Molybdenum	1000	1010	101	80.0-120	

⁴Cn

⁵Sr

L1506569-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1506569-03 07/07/22 23:50 • (MS) R3812265-4 07/07/22 23:55 • (MSD) R3812265-5 07/07/22 23:58

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	ND	1020	1010	102	101	1	75.0-125			1.19	20

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3812237-1 07/07/22 19:56

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) R3812237-2 07/07/22 19:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	961	96.1	80.0-120	

⁴Cn

⁵Sr

L1506588-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1506588-03 07/07/22 20:01 • (MS) R3812237-4 07/07/22 20:06 • (MSD) R3812237-5 07/07/22 20:09

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	7.50	1030	1070	102	106	1	75.0-125			4.00	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.

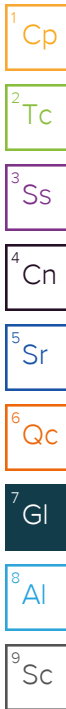
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

MDL	Method Detection Limit.
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

Report to:
Jason Franks

Project Description:
Energy - Sibley Generating Station

Phone: 913-681-0030

Collected by (print):
Matt VanderPutten

Collected by (signature):
Matt VanderPutten

Immediately Packed on Ice N ___ Y Y

Billing Information:

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

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

City/State Collected: Sibley MO

Please Circle:
PT MT W ET

Client Project #
27222162.00 - 5

Lab Project #
AQUAOPKS-SIBLEY

Site/Facility ID #
FAI ACM 2022

P.O. #

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-802	Grab	GW		6/15/22	1110	1
MW-806R		GW			1350	1
MW-807		GW			1300	1
MW-808		GW			1215	1
MW-809		GW			1445	1
MW-810		GW			1545	1
MW-811		GW		6/16/22	1015	1
MW-812		GW			1115	1
MW-813		GW			1215	1
MW-814		GW			1300	1

* 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 # 5300 4294 3467

pH ___ Temp ___
Flow ___ Other ___

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

Relinquished by: (Signature) *Matt VanderPutten* Date: 06/16/22 Time: 1430

Relinquished by: (Signature) Date: Time: Received by: (Signature) Trip Blank Received: 0 Yes/No HCL/MeOH TBR

Relinquished by: (Signature) Date: Time: Received by: (Signature) Date: 6-17-22 Time: 09100 Temp: 5.1+0=5.1 °C Bottles Received: 12

If preservation required by Login: Date/Time Hold: Condition: NCF 10K

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pres Chk

Mo - 6010 250mlHDPE-HNO3



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 #

1506388

Tabl

H030

Acctnum: AQUAOPKS

Template: T208643

Prelogin: P931586

PM: 206 - Jeff Carr

PB:

Shipped Via: FedEX Ground

Remarks Sample # (lab only)

01
02
03
04
05
06
07
08
09
10

Company Name/Address:

SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

Report to:
Jason Franks

Project Description:
Energy - Sibley Generating Station

Phone: 913-681-0030

Collected by (print):
Matt VanderPutten
Collected by (signature):
Matt VanderPutten

Immediately Packed on Ice N Y X

Billing Information:

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

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

City/State Collected: *Sibley MO*

Please Circle:
PT MT ET

Client Project #
27213162.00-2

Lab Project #
AQUAOPKS-SIBLEY

Site/Facility ID #
FAI ACM 2022

P.O. #

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
MS/MSD (807)	Grab	GW		6/15/22	1300	1 X
DUPLICATE	↓	GW		↓	1300	1 X
MW-813		GW				1 X

Mo - 6010 250m HDPE-HNO3

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



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 # *1506988*

Table #

Acctnum: AQUAOPKS

Template: T208643

Prelogin: P931586

PM: 206 - Jeff Carr

PB:

Shipped Via: FedEX Ground

Remarks Sample # (lab only)

11
12

* 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 # *S300 4294 3467*

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"/>	<input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
If Applicable		
VOA Zero Headpace:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N

Relinquished by: (Signature)
Matt VanderPutten

Date: *06/16/22* Time: *1430*

Received by: (Signature)

Trip Blank Received: Yes (No)

HCL / MeOH

TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: °C Bottles Received:

51+0=51 12

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)

Zac Parrin

Date: Time:

6-17-22 09:00

Hold:

Condition:

NCF / OK

SCS Engineers - KS

Sample Delivery Group: L1527800
Samples Received: 08/20/2022
Project Number: 27222162.00 - 5
Description: Sibley FAI ACM Project

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

Entire Report Reviewed By:



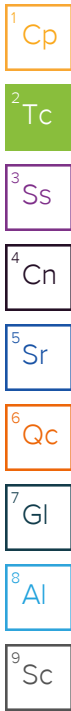
Jeff Carr
Project Manager

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	6
Sr: Sample Results	7
MW-802 L1527800-01	7
MW-807 L1527800-02	8
MW-808 L1527800-03	9
MW-809 L1527800-04	10
MW-810 L1527800-05	11
MW-811 L1527800-06	12
MW-812 L1527800-07	13
MW-813 L1527800-08	14
MW-814 L1527800-09	15
MW-815 L1527800-10	16
MW-816 L1527800-11	17
MW-817 L1527800-12	18
MW-819 L1527800-13	19
MW-820 L1527800-14	20
MW-821 L1527800-15	21
MW-822 L1527800-16	22
DUPLICATE L1527800-18	23
RW-1 L1527800-19	24
RW-2 L1527800-20	25
RW-3 L1527800-21	26
RW-4 L1527800-22	27
Qc: Quality Control Summary	28
Metals (ICP) by Method 6010D	28
Gl: Glossary of Terms	31
Al: Accreditations & Locations	32
Sc: Sample Chain of Custody	33



SAMPLE SUMMARY

MW-802 L1527800-01 GW

Collected by B. Coleman Collected date/time 08/19/22 10:40 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 10:02	ZSA	Mt. Juliet, TN

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

MW-807 L1527800-02 GW

Collected by B. Coleman Collected date/time 08/19/22 12:35 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 10:09	ZSA	Mt. Juliet, TN

MW-808 L1527800-03 GW

Collected by B. Coleman Collected date/time 08/19/22 13:00 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 10:12	ZSA	Mt. Juliet, TN

MW-809 L1527800-04 GW

Collected by B. Coleman Collected date/time 08/19/22 12:30 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 09:20	ZSA	Mt. Juliet, TN

MW-810 L1527800-05 GW

Collected by B. Coleman Collected date/time 08/19/22 13:20 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 10:15	ZSA	Mt. Juliet, TN

MW-811 L1527800-06 GW

Collected by B. Coleman Collected date/time 08/19/22 14:00 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 10:18	ZSA	Mt. Juliet, TN

MW-812 L1527800-07 GW

Collected by B. Coleman Collected date/time 08/19/22 14:40 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 10:26	ZSA	Mt. Juliet, TN

MW-813 L1527800-08 GW

Collected by B. Coleman Collected date/time 08/19/22 15:20 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 10:28	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-814 L1527800-09 GW

Collected by B. Coleman Collected date/time 08/19/22 14:50 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 10:31	ZSA	Mt. Juliet, TN

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

MW-815 L1527800-10 GW

Collected by B. Coleman Collected date/time 08/19/22 12:10 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 10:34	ZSA	Mt. Juliet, TN

MW-816 L1527800-11 GW

Collected by B. Coleman Collected date/time 08/19/22 11:50 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914224	1	08/21/22 21:21	08/22/22 10:36	ZSA	Mt. Juliet, TN

MW-817 L1527800-12 GW

Collected by B. Coleman Collected date/time 08/19/22 11:05 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914225	1	08/21/22 23:03	08/22/22 12:32	ZSA	Mt. Juliet, TN

MW-819 L1527800-13 GW

Collected by B. Coleman Collected date/time 08/19/22 10:55 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914319	1	08/23/22 01:38	08/23/22 17:46	ABL	Mt. Juliet, TN

MW-820 L1527800-14 GW

Collected by B. Coleman Collected date/time 08/19/22 13:50 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914225	1	08/21/22 23:03	08/22/22 12:35	ZSA	Mt. Juliet, TN

MW-821 L1527800-15 GW

Collected by B. Coleman Collected date/time 08/19/22 14:20 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914225	1	08/21/22 23:03	08/22/22 12:38	ZSA	Mt. Juliet, TN

MW-822 L1527800-16 GW

Collected by B. Coleman Collected date/time 08/19/22 13:25 Received date/time 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914225	1	08/21/22 23:03	08/22/22 12:46	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

DUPLICATE L1527800-18 GW

Collected by: B. Coleman
 Collected date/time: 08/19/22 12:30
 Received date/time: 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914225	1	08/21/22 23:03	08/22/22 12:49	ZSA	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

RW-1 L1527800-19 GW

Collected by: B. Coleman
 Collected date/time: 08/19/22 11:45
 Received date/time: 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914319	1	08/23/22 01:38	08/23/22 17:49	ABL	Mt. Juliet, TN

4 Cn

5 Sr

RW-2 L1527800-20 GW

Collected by: B. Coleman
 Collected date/time: 08/19/22 12:15
 Received date/time: 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914225	1	08/21/22 23:03	08/22/22 12:52	ZSA	Mt. Juliet, TN

6 Qc

7 Gl

8 Al

RW-3 L1527800-21 GW

Collected by: B. Coleman
 Collected date/time: 08/19/22 12:30
 Received date/time: 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914225	1	08/21/22 23:03	08/22/22 12:55	ZSA	Mt. Juliet, TN

9 Sc

RW-4 L1527800-22 GW

Collected by: B. Coleman
 Collected date/time: 08/19/22 13:15
 Received date/time: 08/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1914225	1	08/21/22 23:03	08/22/22 12:58	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	ND		5.00	1	08/22/2022 10:02	WG1914224

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	6.18		5.00	1	08/22/2022 10:09	WG1914224

- 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	08/22/2022 10:12	WG1914224

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	352		5.00	1	08/22/2022 09:20	WG1914224

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	92.1		5.00	1	08/22/2022 10:15	WG1914224

- 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	8.99		5.00	1	08/22/2022 10:18	WG1914224

- 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	08/22/2022 10:26	WG1914224

- 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	08/22/2022 10:28	WG1914224

- 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	10.8		5.00	1	08/22/2022 10:31	WG1914224

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	11.6		5.00	1	08/22/2022 10:34	WG1914224

- 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	08/22/2022 10:36	WG1914224

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	5.60		5.00	1	08/22/2022 12:32	WG1914225

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	14.7		5.00	1	08/23/2022 17:46	WG1914319

- 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	08/22/2022 12:35	WG1914225

- 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	08/22/2022 12:38	WG1914225

- 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	08/22/2022 12:46	WG1914225

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	410		5.00	1	08/22/2022 12:49	WG1914225

- 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	08/23/2022 17:49	WG1914319

- 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	08/22/2022 12:52	WG1914225

- 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	08/22/2022 12:55	WG1914225

- 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	08/22/2022 12:58	WG1914225

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

Method Blank (MB)

(MB) R3828952-1 08/22/22 09:15

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) R3828952-2 08/22/22 09:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	944	94.4	80.0-120	

4 Cn

5 Sr

L1527800-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1527800-04 08/22/22 09:20 • (MS) R3828952-4 08/22/22 09:26 • (MSD) R3828952-5 08/22/22 09:28

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	352	1290	1270	93.8	91.8	1	75.0-125			1.62	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3828884-1 08/22/22 11:37

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) R3828884-2 08/22/22 11:40

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

L1525027-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1525027-10 08/22/22 11:43 • (MS) R3828884-4 08/22/22 11:48 • (MSD) R3828884-5 08/22/22 11:51

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 %
Molybdenum	1000	ND	976	985	97.6	98.5	1	75.0-125			0.931	20

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3829618-1 08/23/22 16:26

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) R3829618-2 08/23/22 16:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	966	96.6	80.0-120	

⁴Cn

⁵Sr

L1526481-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1526481-01 08/23/22 16:32 • (MS) R3829618-4 08/23/22 16:38 • (MSD) R3829618-5 08/23/22 16:41

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	959	949	95.9	94.9	1	75.0-125			1.05	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.

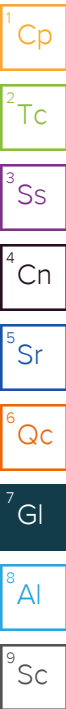
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

MDL	Method Detection Limit.
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.



SCS Engineers - KS

Sample Delivery Group: L1532376
Samples Received: 09/03/2022
Project Number: 27222162.00 - 5
Description: Sibley FAI ACM Project

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

Entire Report Reviewed By:

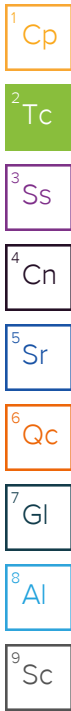


Jeff Carr
Project Manager

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
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	6
Sr: Sample Results	7
MW-806R L1532376-01	7
MW-807 L1532376-02	8
MW-808 L1532376-03	9
MW-809 L1532376-04	10
MW-810 L1532376-05	11
MW-811 L1532376-06	12
MW-812 L1532376-07	13
MW-813 L1532376-08	14
MW-814 L1532376-09	15
MW-815 L1532376-10	16
MW-816 L1532376-11	17
MW-817 L1532376-12	18
MW-819 L1532376-13	19
MW-820 L1532376-14	20
MW-821 L1532376-15	21
MW-822 L1532376-16	22
DUPLICATE L1532376-17	23
Qc: Quality Control Summary	24
Metals (ICP) by Method 6010D	24
Gl: Glossary of Terms	25
Al: Accreditations & Locations	26
Sc: Sample Chain of Custody	27

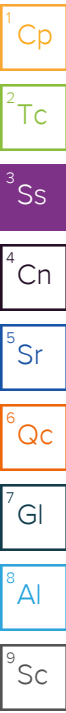


SAMPLE SUMMARY

MW-806R L1532376-01 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 12:20
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 18:31	ZSA	Mt. Juliet, TN



MW-807 L1532376-02 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 10:25
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 18:34	ZSA	Mt. Juliet, TN

MW-808 L1532376-03 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 10:50
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 18:42	ZSA	Mt. Juliet, TN

MW-809 L1532376-04 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 13:30
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 18:15	ZSA	Mt. Juliet, TN

MW-810 L1532376-05 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 14:00
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 18:45	ZSA	Mt. Juliet, TN

MW-811 L1532376-06 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 14:25
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 18:48	ZSA	Mt. Juliet, TN

MW-812 L1532376-07 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 14:50
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 18:50	ZSA	Mt. Juliet, TN

MW-813 L1532376-08 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 12:45
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 18:53	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-814 L1532376-09 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 13:05
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 18:56	ZSA	Mt. Juliet, TN



MW-815 L1532376-10 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 10:00
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 18:58	ZSA	Mt. Juliet, TN

MW-816 L1532376-11 GW

Collected by Jason R Franks
 Collected date/time 09/02/22 11:10
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 19:01	ZSA	Mt. Juliet, TN

MW-817 L1532376-12 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 09:20
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 19:04	ZSA	Mt. Juliet, TN

MW-819 L1532376-13 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 09:10
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 19:07	ZSA	Mt. Juliet, TN

MW-820 L1532376-14 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 11:35
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 19:15	ZSA	Mt. Juliet, TN

MW-821 L1532376-15 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 12:00
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 19:18	ZSA	Mt. Juliet, TN

MW-822 L1532376-16 GW

Collected by Jason R Franks
 Collected date/time 09/01/22 11:10
 Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 19:20	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

DUPLICATE L1532376-17 GW

Collected by Jason R Franks
Collected date/time 09/01/22 13:35
Received date/time 09/03/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1921779	1	09/07/22 10:55	09/07/22 19:23	ZSA	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 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	1510		5.00	1	09/07/2022 18:31	WG1921779

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	8.02		5.00	1	09/07/2022 18:34	WG1921779

- 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	09/07/2022 18:42	WG1921779

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	331		5.00	1	09/07/2022 18:15	WG1921779

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	83.5		5.00	1	09/07/2022 18:45	WG1921779

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	12.9		5.00	1	09/07/2022 18:48	WG1921779

- 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	09/07/2022 18:50	WG1921779

- 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	09/07/2022 18:53	WG1921779

- 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	8.77		5.00	1	09/07/2022 18:56	WG1921779

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	5.33		5.00	1	09/07/2022 18:58	WG1921779

- 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	09/07/2022 19:01	WG1921779

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	7.26		5.00	1	09/07/2022 19:04	WG1921779

- 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	09/07/2022 19:07	WG1921779

- 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	09/07/2022 19:15	WG1921779

- 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	09/07/2022 19:18	WG1921779

- 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	09/07/2022 19:20	WG1921779

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	342		5.00	1	09/07/2022 19:23	WG1921779

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

Method Blank (MB)

(MB) R3834763-1 09/07/22 18:10

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) R3834763-2 09/07/22 18:12

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

4 Cn

5 Sr

L1532376-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1532376-04 09/07/22 18:15 • (MS) R3834763-4 09/07/22 18:20 • (MSD) R3834763-5 09/07/22 18:23

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	331	1250	1260	91.4	92.7	1	75.0-125			1.07	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.

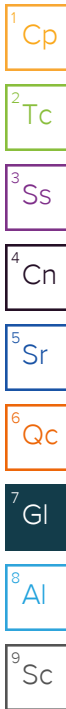
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Analysis / Container / Preservative																				
-------------------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Chain of Custody Page 2 of 2



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:
Sibley FAI ACM Project

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):
JASON R. FRANKS

Site/Facility ID #

P.O. #

Collected by (signature):
J.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 #
 Date Results Needed

Immediately Packed on Ice N ___ Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs															
MW-816	GRAB	GW	-	09/02/22	1110	1	X														
MW-817		GW	-	09/01/22	0920	1	X														
MW-818		GW	-	09/01/22	---	1	X														
MW-819		GW	-	09/01/22	0910	1	X														
MW-820		GW	-	09/01/22	1135	1	X														
MW-821		GW	-	09/01/22	1200	1	X														
MW-822		GW	-	09/01/22	1110	1	X														
809 MS/MSD		GW	-	09/01/22	1335	1	X														
DUPLICATE		GW	-	09/01/22	1335	1	X														

Molybdenom - 6010 250mlHDPE-HNO3

SDG # **1532376**

Table #

Acctnum: **AQUAOPKS**
 Template: **T204388**
 Prelogin: **P948058**
 PM: **206 - Jeff Carr**
 PB:

Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	11
	12
	13
	14
	15
	16
	17

* 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 # **530 4294 8635**

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> NP <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
If Applicable	
VOA Zero Headpace:	<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)
Jason R. Franks

Relinquished by: (Signature)

Relinquished by: (Signature)

Date: **09/02/22** Time: **1800**

Date: Time:

Date: Time:

Received by: (Signature)
Calub Tapp

Received by: (Signature)

Received for lab by: (Signature)

Trip Blank Received: **1**
 HCL / MeOH
 TBR

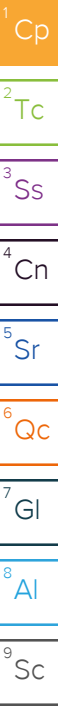
Bottles Received: **18**

Temp: **RR 47 °C**
4.0 to 4.0

Date: **9/3/22** Time: **09:00**

Hold:

Condition: **NCF 1 OK**



SCS Engineers - KS

Sample Delivery Group: L1557426
Samples Received: 11/12/2022
Project Number: 27213162.00-2
Description: Evergy Sibley Gen Station GW 2022-23

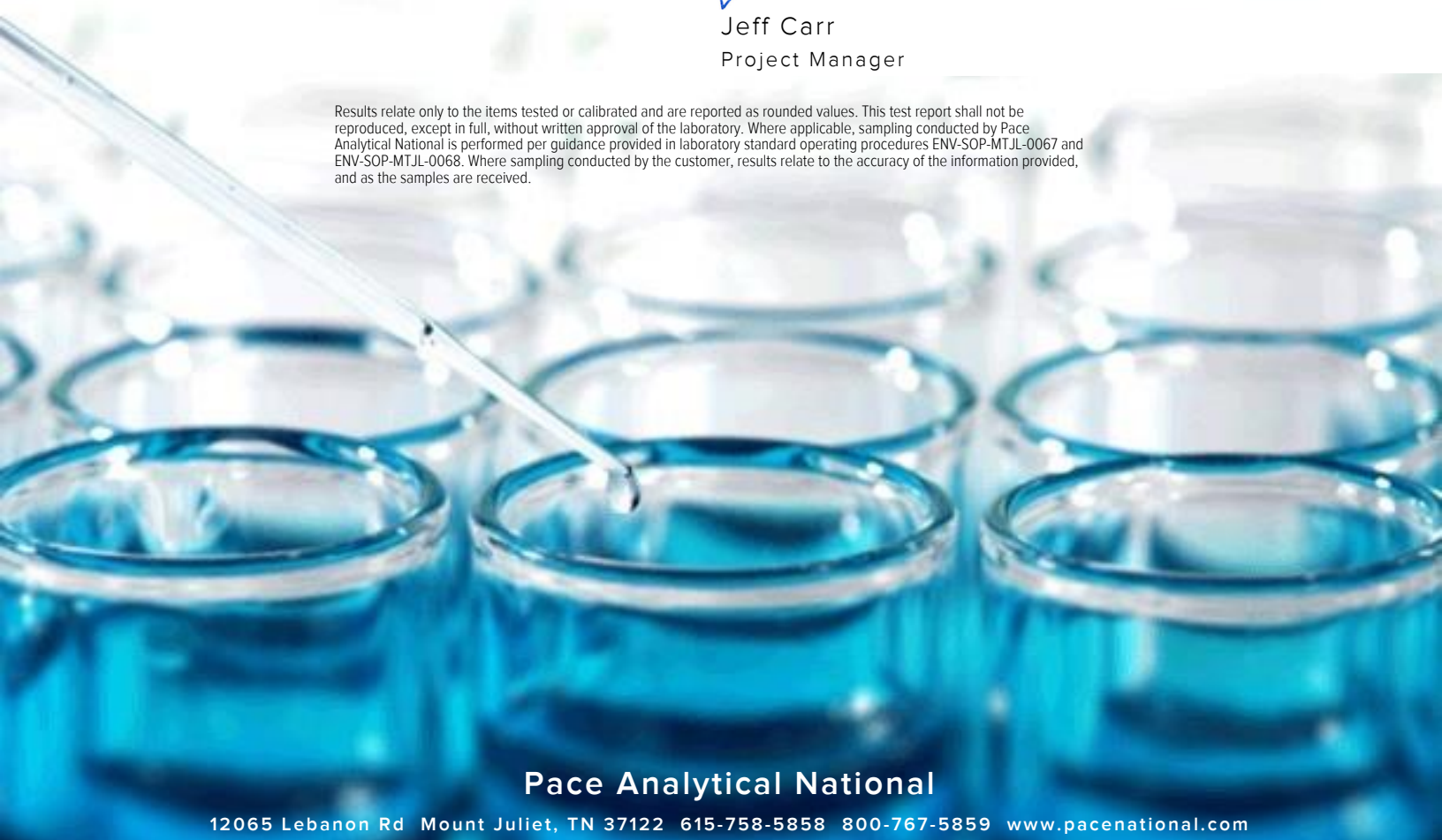
Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

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.

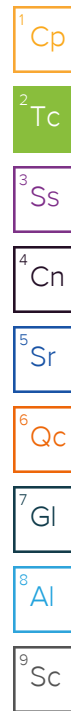


Pace Analytical National

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	6
Sr: Sample Results	7
MW-807 L1557426-01	7
MW-808 L1557426-02	8
MW-809 L1557426-03	9
MW-810 L1557426-04	10
MW-811 L1557426-05	11
MW-812 L1557426-06	12
MW-813 L1557426-07	13
MW-814 L1557426-08	14
MW-815 L1557426-09	15
MW-816 L1557426-10	16
MW-817 L1557426-11	17
MW-819 L1557426-12	18
MW-820 L1557426-13	19
MW-821 L1557426-14	20
MW-822 L1557426-15	21
DUPLICATE 1 L1557426-16	22
DUPLICATE 2 L1557426-17	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 L1557426-01 GW

Collected by B. Coleman Collected date/time 11/10/22 13:00 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:07	ZSA	Mt. Juliet, TN

1 Cp

2 Tc

MW-808 L1557426-02 GW

Collected by B. Coleman Collected date/time 11/11/22 12:10 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:10	ZSA	Mt. Juliet, TN

3 Ss

4 Cn

5 Sr

MW-809 L1557426-03 GW

Collected by B. Coleman Collected date/time 11/11/22 10:00 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 14:38	ZSA	Mt. Juliet, TN

6 Qc

7 Gl

8 Al

MW-810 L1557426-04 GW

Collected by B. Coleman Collected date/time 11/11/22 10:45 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:13	ZSA	Mt. Juliet, TN

9 Sc

MW-811 L1557426-05 GW

Collected by B. Coleman Collected date/time 11/11/22 11:15 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:15	ZSA	Mt. Juliet, TN

MW-812 L1557426-06 GW

Collected by B. Coleman Collected date/time 11/11/22 11:40 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:18	ZSA	Mt. Juliet, TN

MW-813 L1557426-07 GW

Collected by B. Coleman Collected date/time 11/10/22 14:45 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:21	ZSA	Mt. Juliet, TN

MW-814 L1557426-08 GW

Collected by B. Coleman Collected date/time 11/10/22 16:15 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:24	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-815 L1557426-09 GW

Collected by B. Coleman Collected date/time 11/10/22 13:25 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:26	ZSA	Mt. Juliet, TN

1 Cp

2 Tc

MW-816 L1557426-10 GW

Collected by B. Coleman Collected date/time 11/10/22 13:50 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:29	ZSA	Mt. Juliet, TN

3 Ss

4 Cn

MW-817 L1557426-11 GW

Collected by B. Coleman Collected date/time 11/11/22 12:35 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964440	1	11/29/22 10:27	11/29/22 18:33	ZSA	Mt. Juliet, TN

5 Sr

6 Qc

MW-819 L1557426-12 GW

Collected by B. Coleman Collected date/time 11/11/22 13:10 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:32	ZSA	Mt. Juliet, TN

7 Gl

8 Al

MW-820 L1557426-13 GW

Collected by B. Coleman Collected date/time 11/10/22 11:40 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:40	ZSA	Mt. Juliet, TN

9 Sc

MW-821 L1557426-14 GW

Collected by B. Coleman Collected date/time 11/10/22 11:10 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:43	ZSA	Mt. Juliet, TN

MW-822 L1557426-15 GW

Collected by B. Coleman Collected date/time 11/10/22 12:25 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:45	ZSA	Mt. Juliet, TN

DUPLICATE 1 L1557426-16 GW

Collected by B. Coleman Collected date/time 11/10/22 00:00 Received date/time 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:48	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

DUPLICATE 2 L1557426-17 GW

Collected by: B. Coleman
Collected date/time: 11/10/22 00:00
Received date/time: 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1964437	1	11/30/22 09:36	11/30/22 15:51	ZSA	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	ND		5.00	1	11/30/2022 15:07	WG1964437

- 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	11/30/2022 15:10	WG1964437

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	35.9		5.00	1	11/30/2022 14:38	WG1964437

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	76.8		5.00	1	11/30/2022 15:13	WG1964437

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	11.9		5.00	1	11/30/2022 15:15	WG1964437

- 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	11/30/2022 15:18	WG1964437

- 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	11/30/2022 15:21	WG1964437

- 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	8.26		5.00	1	11/30/2022 15:24	WG1964437

- 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	11/30/2022 15:26	WG1964437

- 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	11/30/2022 15:29	WG1964437

- 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	6.64		5.00	1	11/29/2022 18:33	WG1964440

- 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	11/30/2022 15:32	WG1964437

- 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	11/30/2022 15:40	WG1964437

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	11/30/2022 15:43	WG1964437

- 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	11/30/2022 15:45	WG1964437

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum	37.0		5.00	1	11/30/2022 15:48	WG1964437

- 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	7.06		5.00	1	11/30/2022 15:51	WG1964437

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

Method Blank (MB)

(MB) R3866780-1 11/30/22 14:32

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) R3866780-2 11/30/22 14:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	1030	103	80.0-120	

4 Cn

5 Sr

L1557426-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1557426-03 11/30/22 14:38 • (MS) R3866780-4 11/30/22 14:43 • (MSD) R3866780-5 11/30/22 14:46

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 %
Molybdenum	1000	35.9	1010	1020	97.5	98.8	1	75.0-125			1.27	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3866308-1 11/29/22 18:27

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

Laboratory Control Sample (LCS)

(LCS) R3866308-2 11/29/22 18:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Molybdenum	1000	971	97.1	80.0-120	

L1557426-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1557426-11 11/29/22 18:33 • (MS) R3866308-4 11/29/22 18:38 • (MSD) R3866308-5 11/29/22 18:41

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	6.64	966	970	95.9	96.4	1	75.0-125			0.467	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.

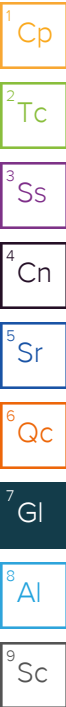
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

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

Analysis / Container / Preservative										
Pres Chk	22									

Chain of Custody Page 1 of 2

 PEOPLE ADVANCING SCIENCE

Report to:
Jason Franks

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

Project Description:
Evergy Sibley Gen Station GW 2022-23

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

Please Circle:
 PT MT **OT** ET

Phone: **913-681-0030**


Client Project #
27213162.00-2

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
J. Martin

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 #
STD

Immediately Packed on Ice **N**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-807	↙	GW	↓	11-10-22	1300	1
MW-808	↓	GW	↓	11-11-22	1210	1
MW-809	↓	GW	↓	11-11-22	1000	1
MW-810	↓	GW	↓	11-11-22	1045	1
MW-811	↓	GW	↓	11-11-22	1115	1
MW-812	↓	GW	↓	11-11-22	1140	1
MW-813	↓	GW	↓	11-10-22	1445	1
MW-814	↓	GW	↓	11-10-22	1615	1
MW-815	↓	GW	↓	11-10-22	1325	1
MW-816	↓	GW	↓	11-10-22	1350	1

MO - 6010 250m/HDPE-HNO3

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 # **L1557426**
C087

Acctnum: **AQUAOPKS**
 Template: **T208643**
 Prelogin: **P958854**
 PM: **206 - Jeff Carr**
 PB:

Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	-01
	-02
	-03
	-04
	-05
	-06
	-07
	-08
	-09
	-10

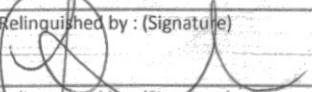
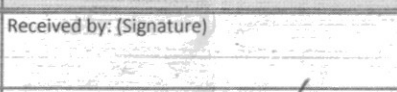
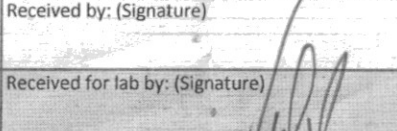
* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:
 pH _____ Temp _____
 Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking #

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 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

Relinquished by: (Signature) 	Date: 11-11-22	Time: 1600	Received by: (Signature) 
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 


Trip Blank Received: Yes/No HCL/MeOH TBR	Bottles Received: 19	If preservation required by Login: Date/Time
Temp: 0.1°C to 0.1°C	Date: 11-12-22	Time: 0900
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

Analysis / Container / Preservative	Pres Chk
	<input checked="" type="checkbox"/>

Chain of Custody



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: **SHUN, MO**

Please Circle:
 PT MT **ET**

Phone: **913-681-0030**

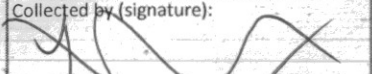
Client Project #
27213169.22 - I

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
J. Colman

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 #
570

Immediately Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-817	G	GW	-	11-11-22	1235	1
MW-818		GW				1
MW-819		GW		11-11-22	1310	1
MW-820		GW		11-10-22	1140	1
MW-821		GW		11-10-22	1110	1
MW-822		GW		11-10-22	1225	1
809 MS/MSD		GW		11-11-22	-	1
817 MS/MSD		GW		11-11-22	-	1
DUPLICATE 1		GW		11-11-22	-	1
DUPLICATE 2		GW		11-11-22	-	1

Mo - 6010 250mlHDPE-HNO3

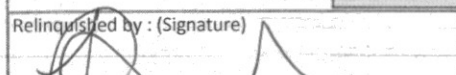
MT JULIET, TN
 12065 Lebanon Rd Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at:
<https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG #
 Table #
 Acctnum: **AQUAOPKS**
 Template: **T208643**
 Prelogin: **P958854**
 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:
 pH _____ Temp _____
 Flow _____ Other _____
 Samples returned via:
 UPS FedEx Courier
 Tracking #

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 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

Relinquished by: (Signature)

 Date: **11-11-22**
 Time: **1100**

Received by: (Signature)
 Date:
 Time:

Received by: (Signature)
 Date:
 Time:

Trip Blank Received: Yes / No
 HCL / MeOH
 TBR
 Bottles Received: **19**
 Temp: **0.1 to 0.1°C**
 Date: **11-12-22**

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

SCS Engineers - KS

Sample Delivery Group: L1562474
Samples Received: 11/30/2022
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:



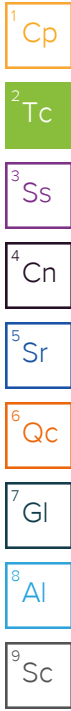
Jeff Carr
Project Manager

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 L1562474-01	6
MW-802 L1562474-02	7
MW-803 L1562474-03	8
MW-804 L1562474-04	9
MW-805 L1562474-05	10
MW-806R L1562474-06	11
DUPLICATE L1562474-07	12
Qc: Quality Control Summary	13
Gravimetric Analysis by Method 2540 C-2011	13
Wet Chemistry by Method 9056A	14
Mercury by Method 7470A	17
Metals (ICP) by Method 6010D	19
Metals (ICPMS) by Method 6020	20
Gl: Glossary of Terms	21
Al: Accreditations & Locations	22
Sc: Sample Chain of Custody	23



SAMPLE SUMMARY

MW-801 L1562474-01 GW

Collected by B. Coleman Collected date/time 11/29/22 12:55 Received date/time 11/30/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1969065	1	12/04/22 16:14	12/05/22 16:31	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1967711	1	12/02/22 01:27	12/02/22 01:27	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1967371	1	12/01/22 09:23	12/01/22 21:13	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1968516	1	12/05/22 22:33	12/09/22 12:59	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1968538	1	12/07/22 10:25	12/08/22 18:59	JPD	Mt. Juliet, TN



MW-802 L1562474-02 GW

Collected by B. Coleman Collected date/time 11/29/22 12:10 Received date/time 11/30/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1969065	1	12/04/22 16:14	12/05/22 16:31	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1967711	1	12/02/22 01:42	12/02/22 01:42	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1967371	1	12/01/22 09:23	12/01/22 21:17	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1968516	1	12/05/22 22:33	12/09/22 13:02	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1968538	1	12/07/22 10:25	12/08/22 19:02	JPD	Mt. Juliet, TN



MW-803 L1562474-03 GW

Collected by B. Coleman Collected date/time 11/29/22 12:10 Received date/time 11/30/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1969065	1	12/04/22 16:14	12/05/22 16:31	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1967711	1	12/02/22 01:58	12/02/22 01:58	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1967371	1	12/01/22 09:23	12/01/22 21:20	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1968516	1	12/05/22 22:33	12/09/22 13:10	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1968538	1	12/07/22 10:25	12/08/22 19:06	JPD	Mt. Juliet, TN



MW-804 L1562474-04 GW

Collected by B. Coleman Collected date/time 11/29/22 12:55 Received date/time 11/30/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1969065	1	12/04/22 16:14	12/05/22 16:31	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1967711	1	12/02/22 02:13	12/02/22 02:13	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1967371	1	12/01/22 09:23	12/01/22 20:16	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1968516	1	12/05/22 22:33	12/09/22 12:06	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1968538	1	12/07/22 10:25	12/08/22 18:23	JPD	Mt. Juliet, TN

MW-805 L1562474-05 GW

Collected by B. Coleman Collected date/time 11/29/22 13:35 Received date/time 11/30/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1969065	1	12/04/22 16:14	12/05/22 16:31	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1967711	1	12/02/22 03:30	12/02/22 03:30	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1967371	1	12/01/22 09:23	12/01/22 21:32	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1968516	1	12/05/22 22:33	12/09/22 13:13	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1968538	1	12/07/22 10:25	12/08/22 19:09	JPD	Mt. Juliet, TN

SAMPLE SUMMARY

MW-806R L1562474-06 GW

Collected by: B. Coleman
 Collected date/time: 11/29/22 11:35
 Received date/time: 11/30/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1969065	1	12/04/22 16:14	12/05/22 16:31	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1967711	1	12/02/22 03:46	12/02/22 03:46	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1968862	5	12/04/22 03:32	12/04/22 03:32	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1967148	1	12/01/22 09:44	12/01/22 22:30	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1968516	1	12/05/22 22:33	12/09/22 13:16	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1968538	1	12/07/22 10:25	12/08/22 19:12	JPD	Mt. Juliet, TN

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

DUPLICATE L1562474-07 GW

Collected by: B. Coleman
 Collected date/time: 11/29/22 00:00
 Received date/time: 11/30/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1969065	1	12/04/22 16:14	12/05/22 16:31	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1967711	1	12/02/22 04:01	12/02/22 04:01	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1967148	1	12/01/22 09:44	12/01/22 22:32	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1968516	1	12/05/22 22:33	12/09/22 13:18	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1968538	1	12/07/22 10:25	12/08/22 19:15	JPD	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	605000	J3	13300	1	12/05/2022 16:31	WG1969065

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	136000		1000	1	12/02/2022 01:27	WG1967711
Fluoride	182		150	1	12/02/2022 01:27	WG1967711
Sulfate	45000		5000	1	12/02/2022 01:27	WG1967711

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	12/01/2022 21:13	WG1967371

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	144		5.00	1	12/09/2022 12:59	WG1968516
Boron	ND		200	1	12/09/2022 12:59	WG1968516
Calcium	123000		1000	1	12/09/2022 12:59	WG1968516
Chromium	ND		10.0	1	12/09/2022 12:59	WG1968516
Lithium	ND		15.0	1	12/09/2022 12:59	WG1968516
Molybdenum	ND		5.00	1	12/09/2022 12:59	WG1968516

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	12/08/2022 18:59	WG1968538
Arsenic	ND		2.00	1	12/08/2022 18:59	WG1968538
Beryllium	ND		2.00	1	12/08/2022 18:59	WG1968538
Cadmium	ND		1.00	1	12/08/2022 18:59	WG1968538
Cobalt	ND		2.00	1	12/08/2022 18:59	WG1968538
Lead	ND		2.00	1	12/08/2022 18:59	WG1968538
Selenium	2.13		2.00	1	12/08/2022 18:59	WG1968538

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	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	246000		10000	1	12/05/2022 16:31	WG1969065

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Chloride	32000		1000	1	12/02/2022 01:42	WG1967711
Fluoride	187		150	1	12/02/2022 01:42	WG1967711
Sulfate	35800		5000	1	12/02/2022 01:42	WG1967711

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	12/01/2022 21:17	WG1967371

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Barium	151		5.00	1	12/09/2022 13:02	WG1968516
Boron	ND		200	1	12/09/2022 13:02	WG1968516
Calcium	39200		1000	1	12/09/2022 13:02	WG1968516
Chromium	ND		10.0	1	12/09/2022 13:02	WG1968516
Lithium	ND		15.0	1	12/09/2022 13:02	WG1968516
Molybdenum	ND		5.00	1	12/09/2022 13:02	WG1968516

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Antimony	ND		4.00	1	12/08/2022 19:02	WG1968538
Arsenic	2.38		2.00	1	12/08/2022 19:02	WG1968538
Beryllium	ND		2.00	1	12/08/2022 19:02	WG1968538
Cadmium	ND		1.00	1	12/08/2022 19:02	WG1968538
Cobalt	ND		2.00	1	12/08/2022 19:02	WG1968538
Lead	ND		2.00	1	12/08/2022 19:02	WG1968538
Selenium	2.48		2.00	1	12/08/2022 19:02	WG1968538

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	J3	10000	1	12/05/2022 16:31	WG1969065

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	20500		1000	1	12/02/2022 01:58	WG1967711
Fluoride	298		150	1	12/02/2022 01:58	WG1967711
Sulfate	117000		5000	1	12/02/2022 01:58	WG1967711

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	12/01/2022 21:20	WG1967371

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	114		5.00	1	12/09/2022 13:10	WG1968516
Boron	2990		200	1	12/09/2022 13:10	WG1968516
Calcium	105000		1000	1	12/09/2022 13:10	WG1968516
Chromium	ND		10.0	1	12/09/2022 13:10	WG1968516
Lithium	17.2		15.0	1	12/09/2022 13:10	WG1968516
Molybdenum	ND		5.00	1	12/09/2022 13:10	WG1968516

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	12/08/2022 19:06	WG1968538
Arsenic	2.63		2.00	1	12/08/2022 19:06	WG1968538
Beryllium	ND		2.00	1	12/08/2022 19:06	WG1968538
Cadmium	ND		1.00	1	12/08/2022 19:06	WG1968538
Cobalt	ND		2.00	1	12/08/2022 19:06	WG1968538
Lead	ND		2.00	1	12/08/2022 19:06	WG1968538
Selenium	ND		2.00	1	12/08/2022 19:06	WG1968538

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	554000		10000	1	12/05/2022 16:31	WG1969065

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	15800		1000	1	12/02/2022 02:13	WG1967711
Fluoride	262		150	1	12/02/2022 02:13	WG1967711
Sulfate	ND		5000	1	12/02/2022 02:13	WG1967711

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	12/01/2022 20:16	WG1967371

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	431	O1	5.00	1	12/09/2022 12:06	WG1968516
Boron	6760	O1 V	200	1	12/09/2022 12:06	WG1968516
Calcium	131000	O1 V	1000	1	12/09/2022 12:06	WG1968516
Chromium	ND		10.0	1	12/09/2022 12:06	WG1968516
Lithium	23.1		15.0	1	12/09/2022 12:06	WG1968516
Molybdenum	ND		5.00	1	12/09/2022 12:06	WG1968516

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	12/08/2022 18:23	WG1968538
Arsenic	ND		2.00	1	12/08/2022 18:23	WG1968538
Beryllium	ND		2.00	1	12/08/2022 18:23	WG1968538
Cadmium	ND		1.00	1	12/08/2022 18:23	WG1968538
Cobalt	ND		2.00	1	12/08/2022 18:23	WG1968538
Lead	ND		2.00	1	12/08/2022 18:23	WG1968538
Selenium	ND		2.00	1	12/08/2022 18:23	WG1968538

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	312000		10000	1	12/05/2022 16:31	WG1969065

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	6280		1000	1	12/02/2022 03:30	WG1967711
Fluoride	221		150	1	12/02/2022 03:30	WG1967711
Sulfate	42000		5000	1	12/02/2022 03:30	WG1967711

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	12/01/2022 21:32	WG1967371

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	139		5.00	1	12/09/2022 13:13	WG1968516
Boron	ND		200	1	12/09/2022 13:13	WG1968516
Calcium	83200		1000	1	12/09/2022 13:13	WG1968516
Chromium	ND		10.0	1	12/09/2022 13:13	WG1968516
Lithium	ND		15.0	1	12/09/2022 13:13	WG1968516
Molybdenum	ND		5.00	1	12/09/2022 13:13	WG1968516

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	12/08/2022 19:09	WG1968538
Arsenic	ND		2.00	1	12/08/2022 19:09	WG1968538
Beryllium	ND		2.00	1	12/08/2022 19:09	WG1968538
Cadmium	ND		1.00	1	12/08/2022 19:09	WG1968538
Cobalt	ND		2.00	1	12/08/2022 19:09	WG1968538
Lead	ND		2.00	1	12/08/2022 19:09	WG1968538
Selenium	ND		2.00	1	12/08/2022 19:09	WG1968538

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	649000		13300	1	12/05/2022 16:31	WG1969065

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	28300		1000	1	12/02/2022 03:46	WG1967711
Fluoride	220		150	1	12/02/2022 03:46	WG1967711
Sulfate	256000		25000	5	12/04/2022 03:32	WG1968862

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	12/01/2022 22:30	WG1967148

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	74.0		5.00	1	12/09/2022 13:16	WG1968516
Boron	3820		200	1	12/09/2022 13:16	WG1968516
Calcium	146000		1000	1	12/09/2022 13:16	WG1968516
Chromium	ND		10.0	1	12/09/2022 13:16	WG1968516
Lithium	20.1		15.0	1	12/09/2022 13:16	WG1968516
Molybdenum	1500		5.00	1	12/09/2022 13:16	WG1968516

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	12/08/2022 19:12	WG1968538
Arsenic	3.16		2.00	1	12/08/2022 19:12	WG1968538
Beryllium	ND		2.00	1	12/08/2022 19:12	WG1968538
Cadmium	ND		1.00	1	12/08/2022 19:12	WG1968538
Cobalt	ND		2.00	1	12/08/2022 19:12	WG1968538
Lead	ND		2.00	1	12/08/2022 19:12	WG1968538
Selenium	ND		2.00	1	12/08/2022 19:12	WG1968538

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	543000		13300	1	12/05/2022 16:31	WG1969065

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	16000		1000	1	12/02/2022 04:01	WG1967711
Fluoride	244		150	1	12/02/2022 04:01	WG1967711
Sulfate	ND		5000	1	12/02/2022 04:01	WG1967711

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	12/01/2022 22:32	WG1967148

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	426		5.00	1	12/09/2022 13:18	WG1968516
Boron	6650		200	1	12/09/2022 13:18	WG1968516
Calcium	130000		1000	1	12/09/2022 13:18	WG1968516
Chromium	ND		10.0	1	12/09/2022 13:18	WG1968516
Lithium	22.7		15.0	1	12/09/2022 13:18	WG1968516
Molybdenum	ND		5.00	1	12/09/2022 13:18	WG1968516

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	12/08/2022 19:15	WG1968538
Arsenic	ND		2.00	1	12/08/2022 19:15	WG1968538
Beryllium	ND		2.00	1	12/08/2022 19:15	WG1968538
Cadmium	ND		1.00	1	12/08/2022 19:15	WG1968538
Cobalt	ND		2.00	1	12/08/2022 19:15	WG1968538
Lead	ND		2.00	1	12/08/2022 19:15	WG1968538
Selenium	ND		2.00	1	12/08/2022 19:15	WG1968538

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3869423-1 12/05/22 16:31

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

1 Cp

2 Tc

3 Ss

L1562474-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1562474-01 12/05/22 16:31 • (DUP) R3869423-3 12/05/22 16:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	605000	644000	1	6.19	J3	5

4 Cn

5 Sr

6 Qc

L1562474-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1562474-03 12/05/22 16:31 • (DUP) R3869423-4 12/05/22 16:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	479000	507000	1	5.68	J3	5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3869423-2 12/05/22 16:31

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8280000	94.1	77.3-123	

Method Blank (MB)

(MB) R3867780-1 12/01/22 20:59

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

L1562474-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1562474-04 12/01/22 02:13 • (DUP) R3867780-3 12/01/22 22:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	15800	15400	1	2.59		15
Fluoride	262	261	1	0.306		15
Sulfate	ND	ND	1	0.000		15

L1562195-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1562195-03 12/01/22 22:01 • (DUP) R3867780-6 12/02/22 02:28

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	ND	ND	1	6.34		15
Fluoride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3867780-2 12/01/22 21:14

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Chloride	40000	39700	99.3	80.0-120	
Fluoride	8000	7770	97.1	80.0-120	
Sulfate	40000	38800	97.0	80.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1562474-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1562474-04 12/02/22 02:13 • (MS) R3867780-4 12/01/22 22:31 • (MSD) R3867780-5 12/01/22 22:47

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 %
Chloride	50000	15800	65200	67700	98.8	104	1	80.0-120			3.75	15
Fluoride	5000	262	4860	4800	92.0	90.9	1	80.0-120			1.20	15
Sulfate	50000	ND	48400	48900	96.7	97.9	1	80.0-120			1.18	15

L1562195-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1562195-03 12/01/22 22:01 • (MS) R3867780-7 12/02/22 03:15

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	ND	48300	95.4	1	80.0-120	
Fluoride	5000	ND	4000	79.9	1	80.0-120	<u>J6</u>
Sulfate	50000	ND	47600	95.2	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) R3868132-1 12/04/22 02:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		594	5000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1563667-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1563667-01 12/04/22 07:46 • (DUP) R3868132-3 12/04/22 08:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	23000	22900	1	0.186		15

L1563667-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1563667-07 12/04/22 10:25 • (DUP) R3868132-6 12/04/22 10:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	35600	35700	1	0.0825		15

Laboratory Control Sample (LCS)

(LCS) R3868132-2 12/04/22 03:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Sulfate	40000	42100	105	80.0-120	

L1563667-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1563667-01 12/04/22 07:46 • (MS) R3868132-4 12/04/22 08:18 • (MSD) R3868132-5 12/04/22 09:06

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	23000	72800	73000	99.7	100	1	80.0-120			0.244	15

L1563667-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1563667-07 12/04/22 10:25 • (MS) R3868132-7 12/04/22 10:57

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	35600	84500	97.7	1	80.0-120	

Method Blank (MB)

(MB) R3867291-1 12/01/22 21:35

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) R3867291-2 12/01/22 21:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	2.86	95.3	80.0-120	

L1562304-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1562304-01 12/01/22 21:39 • (MS) R3867291-3 12/01/22 21:42 • (MSD) R3867291-4 12/01/22 21:44

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	2.80	2.72	93.3	90.8	1	75.0-125			2.73	20

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

Method Blank (MB)

(MB) R3867292-1 12/01/22 20:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Mercury	U		0.100	0.200

Laboratory Control Sample (LCS)

(LCS) R3867292-4 12/01/22 20:37

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Mercury	3.00	3.04	101	80.0-120	

L1562474-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1562474-04 12/01/22 20:16 • (MS) R3867292-2 12/01/22 20:23 • (MSD) R3867292-3 12/01/22 20:25

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	2.41	2.49	80.4	83.1	1	75.0-125			3.29	20

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

Method Blank (MB)

(MB) R3870161-1 12/09/22 12:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	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) R3870161-2 12/09/22 12:04

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Barium	1000	993	99.3	80.0-120	
Boron	1000	959	95.9	80.0-120	
Calcium	10000	9340	93.4	80.0-120	
Chromium	1000	945	94.5	80.0-120	
Lithium	1000	966	96.6	80.0-120	
Molybdenum	1000	987	98.7	80.0-120	

L1562474-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1562474-04 12/09/22 12:06 • (MS) R3870161-4 12/09/22 12:12 • (MSD) R3870161-5 12/09/22 12:14

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	%	%		%			%	%
Barium	1000	431	1400	1380	96.5	94.7	1	75.0-125			1.29	20
Boron	1000	6760	7550	7460	78.7	69.4	1	75.0-125		V	1.24	20
Calcium	10000	131000	138000	136000	64.3	42.1	1	75.0-125	V	V	1.63	20
Chromium	1000	ND	912	901	91.2	90.1	1	75.0-125			1.21	20
Lithium	1000	23.1	1000	995	97.7	97.2	1	75.0-125			0.565	20
Molybdenum	1000	ND	979	965	97.9	96.5	1	75.0-125			1.47	20

Method Blank (MB)

(MB) R3869860-1 12/08/22 18:17

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
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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3869860-2 12/08/22 18:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Antimony	50.0	49.5	98.9	80.0-120	
Arsenic	50.0	48.6	97.1	80.0-120	
Beryllium	50.0	48.5	97.1	80.0-120	
Cadmium	50.0	50.3	101	80.0-120	
Cobalt	50.0	49.3	98.6	80.0-120	
Lead	50.0	48.2	96.4	80.0-120	
Selenium	50.0	52.6	105	80.0-120	

L1562474-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1562474-04 12/08/22 18:23 • (MS) R3869860-4 12/08/22 18:30 • (MSD) R3869860-5 12/08/22 18:33

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	49.3	49.5	98.6	99.0	1	75.0-125			0.412	20
Arsenic	50.0	ND	53.1	51.7	103	99.7	1	75.0-125			2.74	20
Beryllium	50.0	ND	50.0	49.6	100	99.3	1	75.0-125			0.756	20
Cadmium	50.0	ND	52.1	51.6	104	103	1	75.0-125			1.10	20
Cobalt	50.0	ND	50.9	50.0	101	99.4	1	75.0-125			1.67	20
Lead	50.0	ND	52.1	52.2	104	104	1	75.0-125			0.0428	20
Selenium	50.0	ND	53.8	54.4	108	109	1	75.0-125			1.20	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
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.
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

Pres
 Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Report to:
Jason Franks

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

Project Description:
Evergy Sibley Gen Station GW 2022-23

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

Please Circle:
 PT MT **ET**

Phone: **913-681-0030**

Client Project #
27213169.22-B

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
B. Wolfman

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 #
 Date Results Needed
STD

Immediately Packed on Ice N ___ Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride, F, SO4	Metals	TDS	11-HDPE	NoPres
MW-801	G	GW	I	11-29-22	1255	3	X	X	X		
MW-802		GW	I		1210	3	X	X	X		
MW-803		GW	I		1210	3	X	X	X		
MW-804		GW	I		1255	3	X	X	X		
MW-805		GW	I		1335	3	X	X	X		
MW-806R		GW	I		1135	3	X	X	X		
804 MS/MSD		GW	I		-	3	X	X	X		
DUPLICATE		GW	I		-	3	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 # **1562474**
D153

Acctnum: **AQUAOPKS**
 Template: **T198904**
 Prelogin: **P959772**
 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
7470 - Hg

Samples returned via:
 ___ UPS ___ FedEx ___ Courier

pH ___ Temp ___
 Flow ___ Other ___

Tracking # **6020 6531 8993**

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)

 Relinquished by: (Signature)

 Relinquished by: (Signature)

Date: **11-29-22**
 Time: **1600**

Received by: (Signature)

 Received by: (Signature)

 Received for lab by: (Signature)

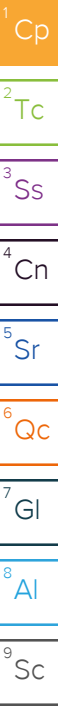
Trip Blank Received: Yes/No
 HCL/ MeOH
 TBR

Temp: **NSAPC**
3.45 = 3.4
24

Date: **11/30/22**
 Time: **0930**

If preservation required by Login: Date/Time

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



SCS Engineers - KS

Sample Delivery Group: L1557456
Samples Received: 11/12/2022
Project Number: 27213169.22-B
Description: Evergy Sibley Gen Station GW 2022-23

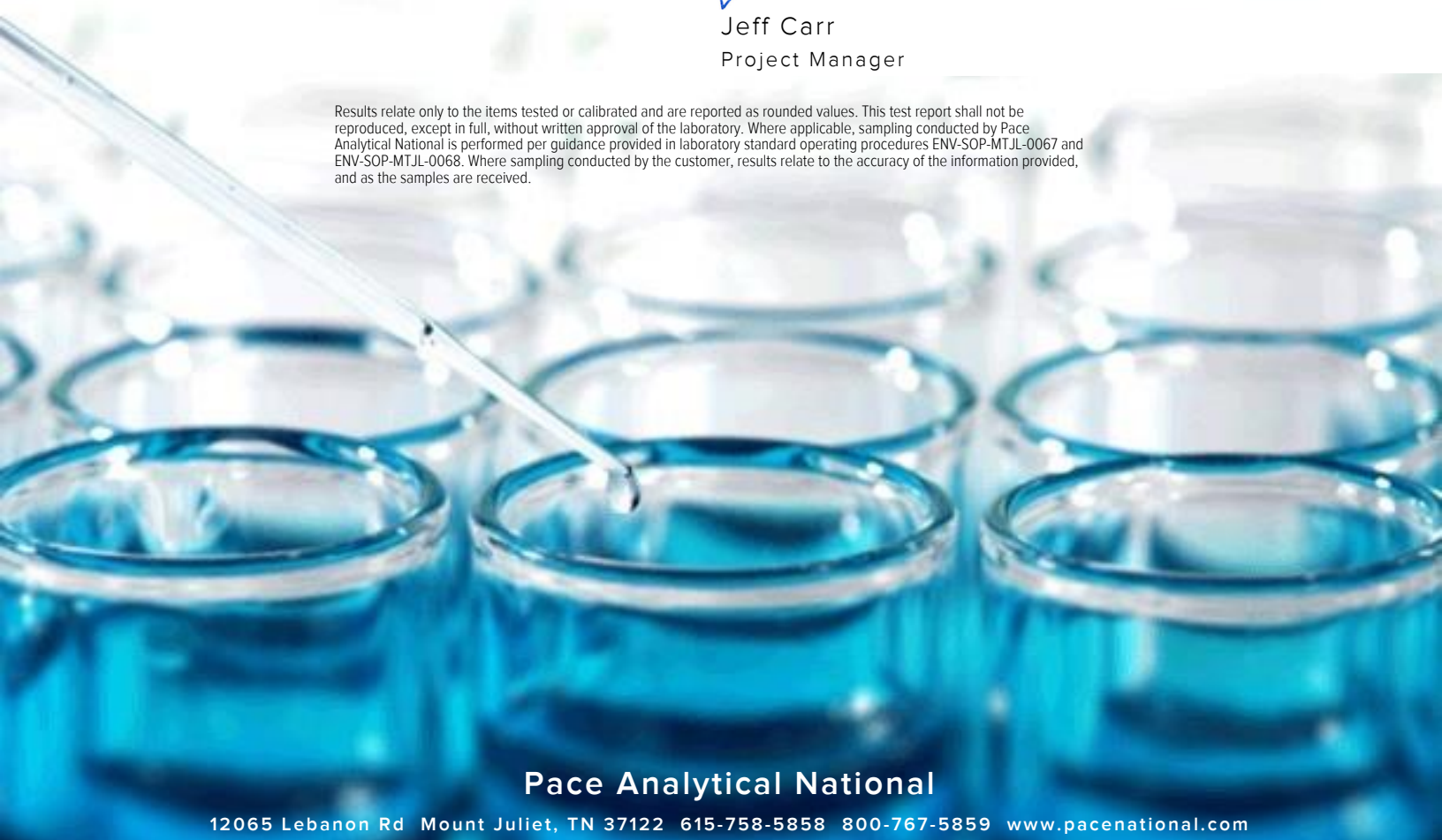
Report To: Jason Franks
8575 W. 110th Street
Overland Park, KS 66210

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 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
801 L1557456-01	6	
802 L1557456-02	7	⁴Cn
803 L1557456-03	8	⁵Sr
804 L1557456-04	9	
805 L1557456-05	10	⁶Qc
806R L1557456-06	11	
DUPLICATE L1557456-07	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	

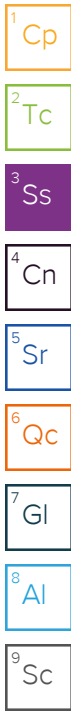
SAMPLE SUMMARY

801 L1557456-01 Non-Potable Water

Collected by
Collected date/time
Received date/time

11/11/22 12:20
11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960576	1	11/16/22 16:44	12/06/22 15:50	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN



802 L1557456-02 Non-Potable Water

Collected by
Collected date/time
Received date/time

11/11/22 13:30
11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960576	1	11/16/22 16:44	12/06/22 15:50	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN

803 L1557456-03 Non-Potable Water

Collected by
Collected date/time
Received date/time

11/11/22 11:21
11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960576	1	11/16/22 16:44	12/06/22 15:50	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN

804 L1557456-04 Non-Potable Water

Collected by
Collected date/time
Received date/time

11/11/22 12:25
11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960576	1	11/16/22 16:44	12/06/22 15:50	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN

805 L1557456-05 Non-Potable Water

Collected by
Collected date/time
Received date/time

11/11/22 12:35
11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960576	1	11/16/22 16:44	12/06/22 15:50	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN

806R L1557456-06 Non-Potable Water

Collected by
Collected date/time
Received date/time

11/11/22 13:35
11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960576	1	11/16/22 16:44	12/06/22 15:50	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

Collected by
Collected date/time
Received date/time

DUPLICATE L1557456-07 Non-Potable Water

11/11/22 00:00 11/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1960576	1	11/16/22 16:44	12/06/22 15:50	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1971828	1	12/15/22 13:19	12/19/22 22:57	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1971828	1	12/15/22 13:19	12/19/22 22:57	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	0.924		0.239	0.405	12/06/2022 15:50	WG1960576
(T) Barium	105			30.0-143	12/06/2022 15:50	WG1960576
(T) Yttrium	102			30.0-136	12/06/2022 15:50	WG1960576

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.02		0.277	0.458	12/19/2022 22:57	WG1971828

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0967	J	0.141	0.213	12/19/2022 22:57	WG1971828
(T) Barium-133	94.1			30.0-143	12/19/2022 22:57	WG1971828

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	-1.21	<u>U</u>	0.389	0.750	12/06/2022 15:50	WG1960576
(T) Barium	94.9			30.0-143	12/06/2022 15:50	WG1960576
(T) Yttrium	112			30.0-136	12/06/2022 15:50	WG1960576

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.552	<u>J</u>	0.490	0.793	12/19/2022 22:57	WG1971828

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.552		0.298	0.257	12/19/2022 22:57	WG1971828
(T) Barium-133	94.4			30.0-143	12/19/2022 22:57	WG1971828

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	0.108	<u>U</u>	0.295	0.534	12/06/2022 15:50	WG1960576
(T) Barium	100			30.0-143	12/06/2022 15:50	WG1960576
(T) Yttrium	104			30.0-136	12/06/2022 15:50	WG1960576

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	0.543	<u>J</u>	0.380	0.572	12/19/2022 22:57	WG1971828

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	0.435		0.239	0.204	12/19/2022 22:57	WG1971828
(T) Barium-133	93.5			30.0-143	12/19/2022 22:57	WG1971828

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	0.0355	<u>U</u>	0.243	0.442	12/06/2022 15:50	WG1960576
(T) Barium	98.4			30.0-143	12/06/2022 15:50	WG1960576
(T) Yttrium	106			30.0-136	12/06/2022 15:50	WG1960576

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	0.150	<u>U</u>	0.283	0.488	12/19/2022 22:57	WG1971828

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	0.114	<u>J</u>	0.146	0.208	12/19/2022 22:57	WG1971828
(T) Barium-133	99.3			30.0-143	12/19/2022 22:57	WG1971828

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	0.0647	<u>U</u>	0.241	0.440	12/06/2022 15:50	WG1960576
(T) Barium	87.0			30.0-143	12/06/2022 15:50	WG1960576
(T) Yttrium	115			30.0-136	12/06/2022 15:50	WG1960576

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.87		0.719	0.557	12/19/2022 22:57	WG1971828

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	2.81		0.677	0.341	12/19/2022 22:57	WG1971828
(T) Barium-133	83.3			30.0-143	12/19/2022 22:57	WG1971828

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	0.539		0.247	0.434	12/06/2022 15:50	WG1960576
(T) Barium	91.0			30.0-143	12/06/2022 15:50	WG1960576
(T) Yttrium	129			30.0-136	12/06/2022 15:50	WG1960576

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	0.754		0.320	0.502	12/19/2022 22:57	WG1971828

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	0.215	J	0.203	0.253	12/19/2022 22:57	WG1971828
(T) Barium-133	91.4			30.0-143	12/19/2022 22:57	WG1971828

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	-0.312	<u>U</u>	0.238	0.448	12/06/2022 15:50	WG1960576
(T) Barium	91.8			30.0-143	12/06/2022 15:50	WG1960576
(T) Yttrium	106			30.0-136	12/06/2022 15:50	WG1960576

- 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	0.529	<u>J</u>	0.378	0.530	12/19/2022 22:57	WG1971828

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.529		0.294	0.284	12/19/2022 22:57	WG1971828
(T) Barium-133	98.3			30.0-143	12/19/2022 22:57	WG1971828

Method Blank (MB)

(MB) R3869378-1 12/06/22 15:50

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	-0.245	<u>U</u>	0.158	0.298
(T) Barium	92.6		92.6	
(T) Yttrium	116		116	

L1550926-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1550926-01 12/06/22 15:50 • (DUP) R3869378-5 12/06/22 15:50

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	0.339	0.275	0.492	0.185	0.302	0.492	1	58.6	0.376	<u>U</u>	20	3
(T) Barium				96.7	96.7							
(T) Yttrium				105	105							

Laboratory Control Sample (LCS)

(LCS) R3869378-2 12/06/22 15:50

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.44	88.7	80.0-120	
(T) Barium			89.6		
(T) Yttrium			104		

L1557456-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1557456-04 12/06/22 15:50 • (MS) R3869378-3 12/06/22 15:50 • (MSD) R3869378-4 12/06/22 15:50

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	0.0355	9.51	8.65	94.7	86.2	1	70.0-130			9.41		20
(T) Barium		98.4			93.7	101							
(T) Yttrium		106			113	113							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3874082-1 12/19/22 22:57

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.00541	<u>U</u>	0.0326	0.0654
(T) Barium-133	88.5		88.5	

L1557456-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1557456-07 12/19/22 22:57 • (DUP) R3874082-5 12/19/22 22:57

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	0.529	0.294	0.284	0.523	0.293	0.284	1	1.18	0.0149		20	3
(T) Barium-133	98.3			92.4	92.4							

Laboratory Control Sample (LCS)

(LCS) R3874082-2 12/19/22 22:57

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.02	5.09	101	80.0-120	
(T) Barium-133			95.7		

L1557456-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1557456-04 12/19/22 22:57 • (MS) R3874082-3 12/19/22 22:57 • (MSD) R3874082-4 12/19/22 22:57

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	0.114	20.2	17.4	100	86.5	1	75.0-125			14.7		20
(T) Barium-133		99.3			96.7	97.7							

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.

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

Analysis / Container / Preservative
 Pres Chk

Chain of Custody Page 1 of 1

Report to:
Jason Franks

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

Project Description:
Evergy Sibley Gen Station GW-2022-23

City/State Collected:
SI/CMU, MO

Please Circle:
 PT MT CT ET

Phone: **913-681-0030**

Client Project #
27213169.22-B

Lab Project #
AQUAOPKS-SIBLEY

Collected by (print):
B. Colman

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
5/11

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
801	G1	NPW	-	11-11-22	1220	2
802		NPW			1330	2
803		NPW			1121	2
804		NPW			1225	2
805		NPW			1235	2
806R		NPW			1335	2
DUPLICATE		NPW			-	2
8041 MS		NPW			-	2
804 MSD		NPW			-	2

RA226, RA228 1L-HDPE-Add HNO3

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 # **1557456**
G108

Acctnum: **AQUAOPKS**
 Template: **T198906**
 Prelogin: **P958856**
 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 radium separately and combined.

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking # **4094 5455 9807**

Sample Receipt Checklist	
COC Seal Present/Intact:	NP <input type="checkbox"/> Y <input checked="" 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 type="checkbox"/> Y <input checked="" 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

Relinquished by: (Signature)

 Relinquished by: (Signature)

 Relinquished by: (Signature)

Date: **11-11-22**
 Time: **1400**

Received by: (Signature)

 Received by: (Signature)

 Received for lab by: (Signature)

Trip Blank Received: Yes No
 HCL / MeOH
 TBR
 Temp: **6.8+0.08**
 Date: **11/2/22**
 Time: **0900**

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

APPENDIX E

STATISTICAL ANALYSES

- E.1 Fall 2021 semiannual detection monitoring statistical analyses
- E.2 Closure Monitoring Statistical Analyses for Statistically Significant Increase
- E.3 Closure Monitoring Statistical Analyses for Statistically Significant Levels
- E.4 Spring 2022 Semiannual and Annual Assessment Monitoring Statistical Analyses

Appendix E.1

Fall 2021 semiannual detection monitoring statistical analyses

MEMORANDUM

March 28, 2022

**To: Sibley Generating Station
33200 E Johnson Road
Sibley, Missouri 64088
Eversource Energy Missouri West, Inc.**



From: SCS Engineers

**RE: Determination of Statistically Significant Increases - Fly Ash Impoundment
Fall 2021 Semiannual Detection Monitoring 40 CFR 257.94
Completion Date March 9, 2022**

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. Detection monitoring groundwater samples were collected on November 15, 2021. Review and validation of the results from the November 2021 Detection Monitoring Event was completed on January 7, 2022, which constitutes completion and finalization of detection monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there was a statistically significant increase (SSI) over background values for each constituent listed in Appendix III to Part 257-Constituents for Detection Monitoring. One round of verification sampling was conducted for certain constituents on January 31, 2022 (MW-804) and February 1, 2022 (MW-801 and MW-803).

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-801, one Appendix III constituent above its prediction limit established for monitoring well MW-803, and two Appendix III constituents above their prediction limits established for monitoring well MW-804.

Constituent/Monitoring Well	*UPL	Observation November 15, 2021	1st Verification January 31 and February 1, 2022
MW-801			
Chloride	143.9	144	147
MW-803			
Chloride	17.17	17.9	19.6
MW-804			
Boron	8.71	9.36	15.9
Chloride	19.5	20.5	28.4

*UPL – Upper Prediction Limit

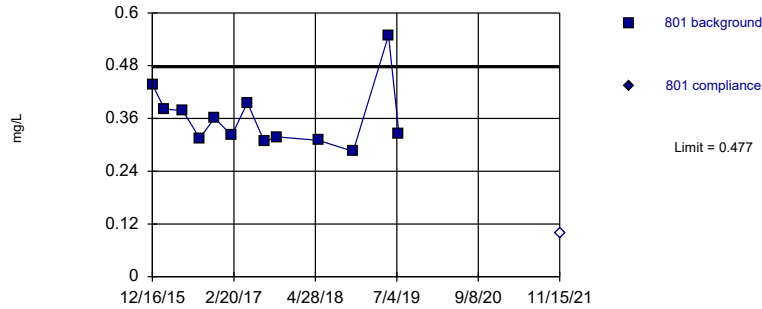
Sibley Generating Station
Determination of Statistically Significant Increases
Fly Ash Impoundment
March 28, 2022

ATTACHMENT 1

Sanitas™ Output

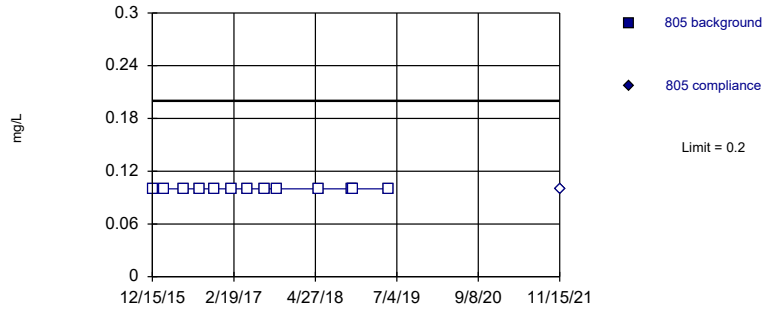
Within Limit

Prediction Limit
Intrawell Parametric



Within Limit

Prediction Limit
Intrawell Non-parametric

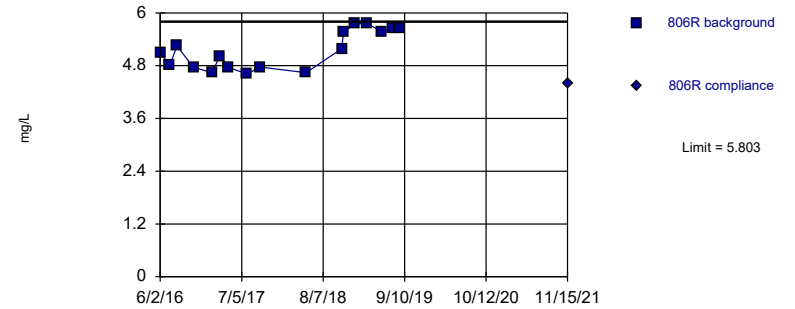


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 13) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3).

Constituent: Boron Analysis Run 3/9/2022 10:16 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

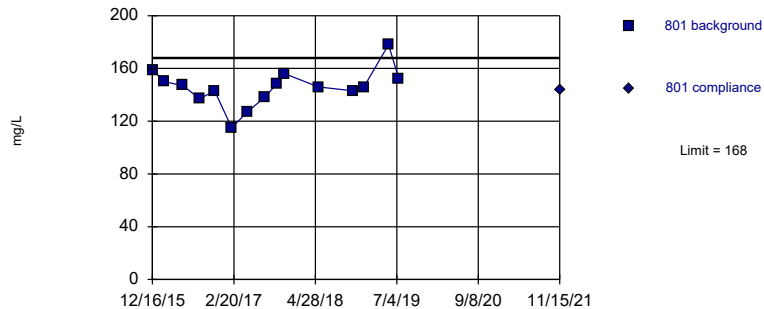


Background Data Summary: Mean=5.148, Std. Dev.=0.4319, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8769, critical = 0.851. Kappa = 1.517 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Boron Analysis Run 3/9/2022 10:16 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

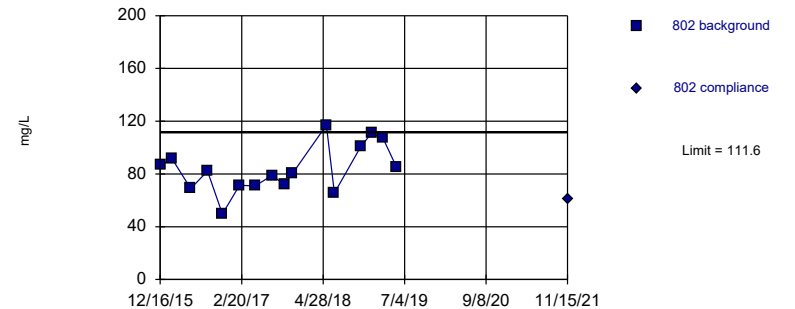


Background Data Summary: Mean=145.7, Std. Dev.=14.23, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9479, critical = 0.835. Kappa = 1.568 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Calcium Analysis Run 3/9/2022 10:16 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=83.71, Std. Dev.=18.2, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9658, critical = 0.844. Kappa = 1.535 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Calcium Analysis Run 3/9/2022 10:16 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

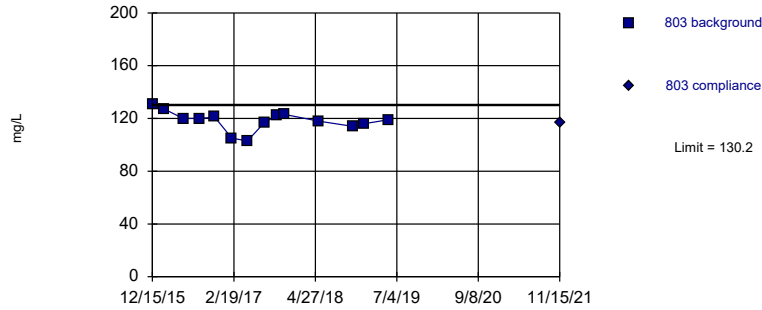
Constituent: Boron, Calcium Analysis Run 3/9/2022 10:19 AM View: Ash Pond III

Sibley Client: SCS Engineers Data: Sibley

	805	805	806R	806R	801	801	802	802
12/15/2015	<0.2							
12/16/2015					159		86.6	
2/17/2016	<0.2				150		91.4	
5/26/2016	<0.2				147		68.9	
6/2/2016			5.1					
7/19/2016			4.81					
8/23/2016	<0.2		5.25		137		82.2	
11/10/2016	<0.2				143		49.6	
11/11/2016			4.77					
2/9/2017	<0.2		4.64		115		71.4	
3/22/2017			5.02					
5/3/2017	<0.2		4.76		127		71	
8/1/2017	<0.2		4.61		138		78.9	
10/4/2017	<0.2		4.77		148		72	
11/16/2017					156			
11/17/2017							80.3	
5/16/2018	<0.2		4.64		146		117	
6/27/2018							65.5	
11/8/2018	<0.2		5.19					
11/15/2018	<0.2		5.56		143		101	
1/11/2019			5.76		146		111	
3/12/2019			5.75				107	
5/22/2019	<0.2		5.58		178		85.5	
7/16/2019			5.64		152			
8/21/2019			5.66					
11/15/2021		<0.2		4.4		144		60.8

Within Limit

Prediction Limit Intrawell Parametric

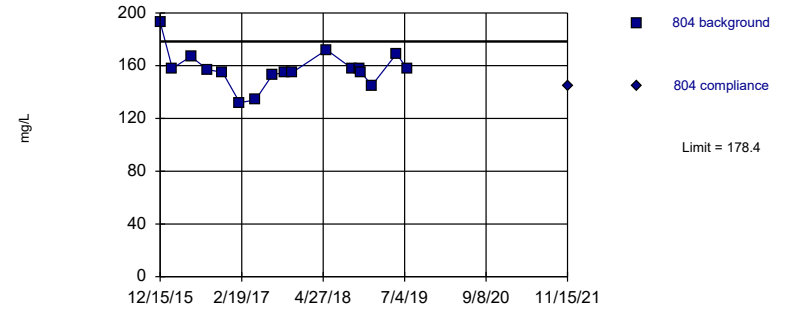


Background Data Summary: Mean=118.3, Std. Dev.=7.457, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9325, critical = 0.825. Kappa = 1.6 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Calcium Analysis Run 3/9/2022 10:16 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric

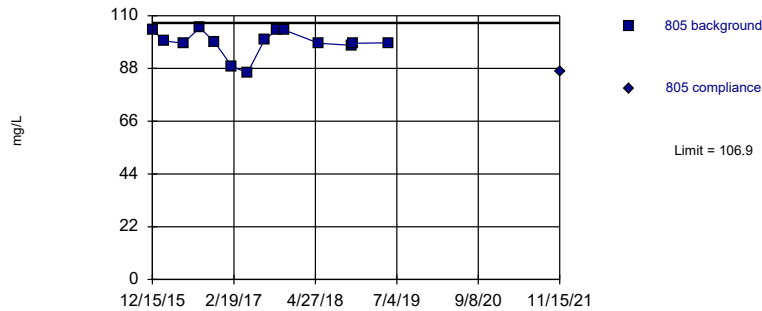


Background Data Summary: Mean=157.3, Std. Dev.=13.91, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8979, critical = 0.851. Kappa = 1.517 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Calcium Analysis Run 3/9/2022 10:16 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric

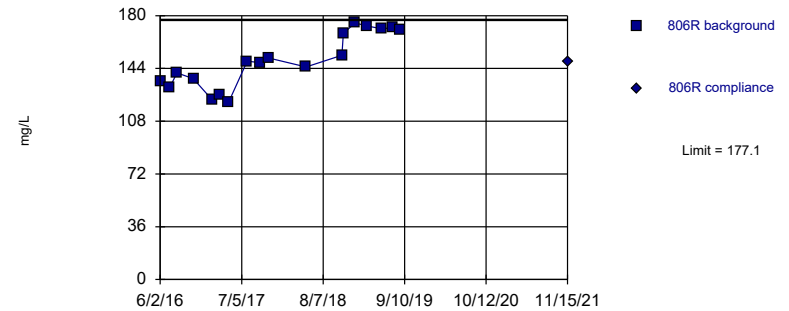


Background Data Summary (based on square transformation): Mean=9775, Std. Dev.=1039, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8389, critical = 0.825. Kappa = 1.6 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Calcium Analysis Run 3/9/2022 10:16 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=149.4, Std. Dev.=18.5, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.918, critical = 0.858. Kappa = 1.499 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Calcium Analysis Run 3/9/2022 10:16 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

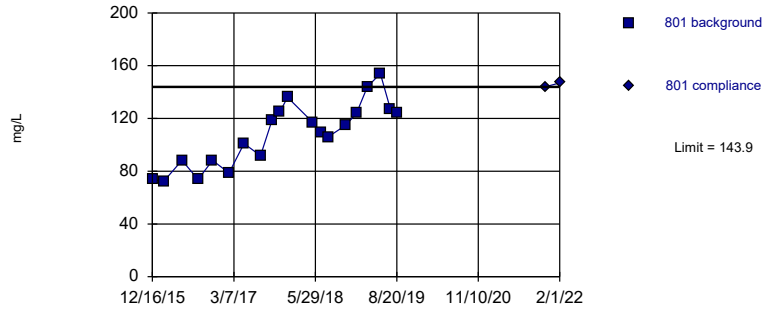
Constituent: Calcium Analysis Run 3/9/2022 10:19 AM View: Ash Pond III

Sibley Client: SCS Engineers Data: Sibley

	803	803	804	804	805	805	806R	806R
12/15/2015	131		193		104			
2/17/2016	127		158		99.5			
5/26/2016	120		167		98.5			
6/2/2016							135	
7/19/2016							131	
8/23/2016	120		157		105		141	
11/10/2016	121		155		98.9			
11/11/2016							137	
2/9/2017	105		132		88.8		123	
3/22/2017							126	
5/3/2017	103		134		86.2		121	
8/1/2017	117		153		100		149	
10/4/2017	122		155		104		148	
11/16/2017	123		155		104			
11/17/2017							151	
5/16/2018	118		172		98.5		145	
9/27/2018			158					
11/8/2018			158		97.6		153	
11/15/2018	114		155		98.5		168	
1/11/2019	116		145				175	
3/12/2019							173	
5/22/2019	119		169		98.7		171	
7/16/2019			158				172	
8/21/2019							170	
11/15/2021		117		145		86.7		149

Exceeds Limit

Prediction Limit Intrawell Parametric

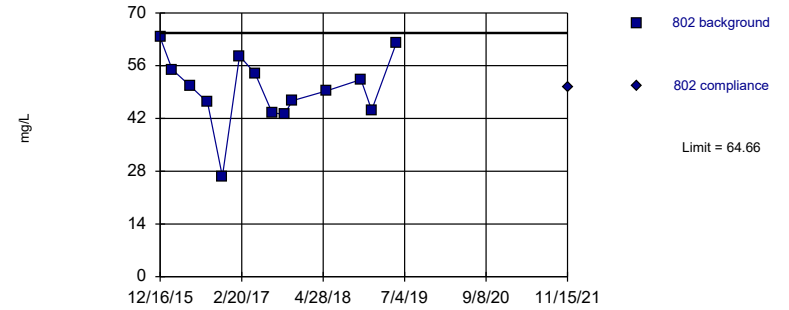


Background Data Summary: Mean=108.4, Std. Dev.=24.27, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9544, critical = 0.868. Kappa = 1.462 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 3/9/2022 10:16 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric

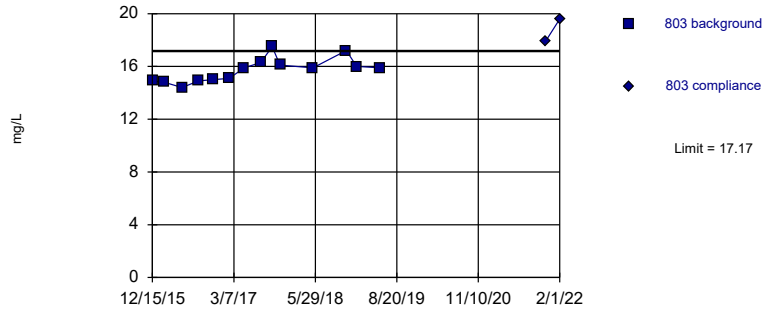


Background Data Summary: Mean=49.68, Std. Dev.=9.367, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9367, critical = 0.825. Kappa = 1.6 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 3/9/2022 10:16 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Exceeds Limit

Prediction Limit Intrawell Parametric



Prediction Limit

Constituent: Chloride Analysis Run 3/9/2022 10:19 AM View: Ash Pond III

Sibley Client: SCS Engineers Data: Sibley

	801	801	802	802	803	803	804	804
12/15/2015					14.9		17.5	
12/16/2015	73.6		63.5					
2/17/2016	72.4		55		14.8		14.6	
5/26/2016	88.2		50.5		14.4		15.5	
8/23/2016	73.8		46.3		14.9		14.4	
11/10/2016	88.2		26.6		15		14.2	
2/9/2017	78.6		58.6		15.1		15.2	
5/3/2017	101		53.9		15.9		15	
8/1/2017	91.8		43.5		16.3		17.1	
10/4/2017	119		43.1		17.5		15.8	
11/16/2017	125				16.1		14.7	
11/17/2017			46.7					
12/28/2017	136							
5/16/2018	117		49.3		15.9		17.5	
6/27/2018	109							
8/8/2018	106							
9/27/2018							18.9	
11/8/2018							18.3	
11/15/2018	115		52.3		17.2		3.9	
1/11/2019	124		44.2		16		17.6	
3/12/2019	144							
5/22/2019	154		62		15.9		17.7	
7/16/2019	127						18.6	
8/21/2019	124							
11/15/2021		144		50.3		17.9		20.5
1/31/2022								28.4
2/1/2022		147				19.6		

Prediction Limit

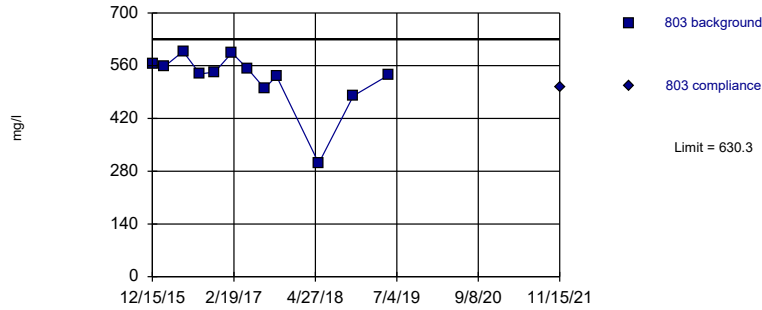
Constituent: Chloride, Dissolved Solids Analysis Run 3/9/2022 10:19 AM View: Ash Pond III

Sibley Client: SCS Engineers Data: Sibley

	805	805	806R	806R	801	801	802	802
12/15/2015	9.51							
12/16/2015					601		385	
2/17/2016	9.86				589		413	
5/26/2016	9.85				669		375	
6/2/2016			28.6					
7/19/2016			28.4					
8/23/2016	10.9		22.9		544		372	
11/10/2016	10.9				602		277	
11/11/2016			22.9					
2/9/2017	11.2		24.6		564		432	
3/22/2017			28.1					
5/3/2017	11.5		25.6		622		416	
8/1/2017	10.8		27.3		527		357	
10/4/2017	12.8		29.9		677		384	
11/16/2017	11.3							
11/17/2017			26.3					
5/16/2018	9.88		27.7		609		285	
11/8/2018	9.12		27.2					
11/15/2018	9.45		29		586		412	
1/11/2019			28.4					
5/22/2019	8.65		28.7		817		383	
7/16/2019			29.2		613			
11/15/2021		6.38		27.8		633		335

Within Limit

Prediction Limit
Intrawell Parametric

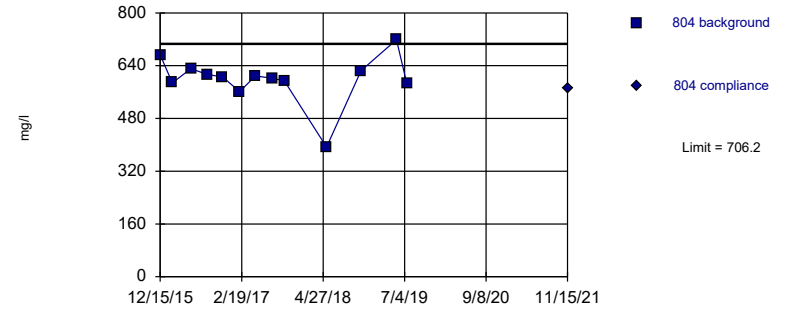


Background Data Summary (based on square transformation): Mean=280762, Std. Dev.=70036, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8114, critical = 0.805. Kappa = 1.664 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Dissolved Solids Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

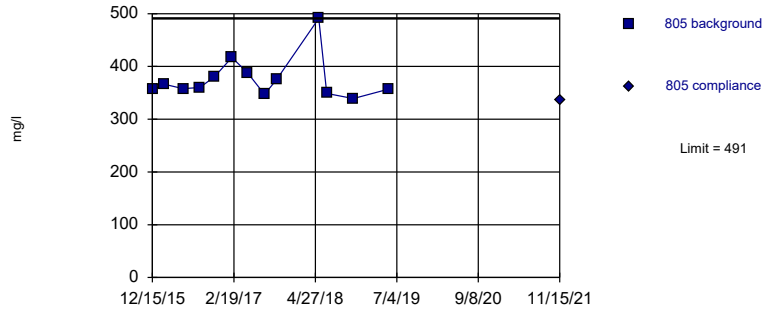


Background Data Summary (based on square transformation): Mean=364995, Std. Dev.=81975, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8666, critical = 0.814. Kappa = 1.632 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Dissolved Solids Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

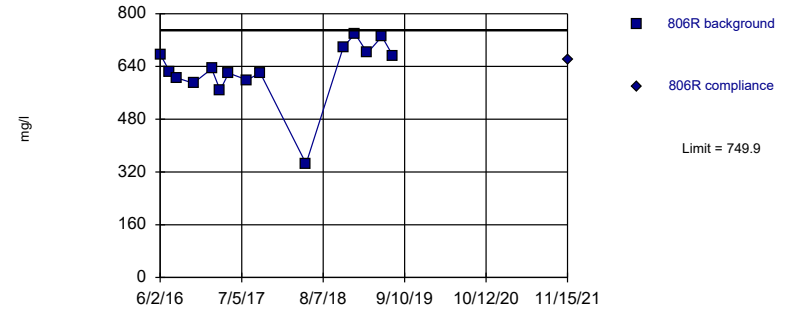


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 13 background values. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3).

Constituent: Dissolved Solids Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on square transformation): Mean=400994, Std. Dev.=102955, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8926, critical = 0.835. Kappa = 1.568 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Dissolved Solids Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

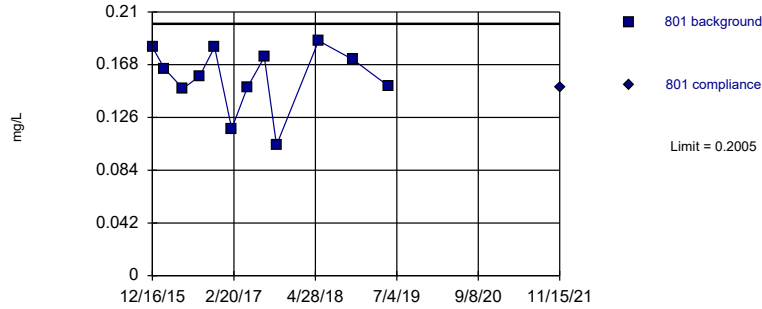
Constituent: Dissolved Solids Analysis Run 3/9/2022 10:19 AM View: Ash Pond III

Sibley Client: SCS Engineers Data: Sibley

	803	803	804	804	805	805	806R	806R
12/15/2015	564		673		356			
2/17/2016	558		588		366			
5/26/2016	598		631		358			
6/2/2016							677	
7/19/2016							624	
8/23/2016	538		613		360		605	
11/10/2016	543		606		381			
11/11/2016							589	
2/9/2017	594		561		417		633	
3/22/2017							568	
5/3/2017	552		609		388		620	
8/1/2017	500		602		347		599	
10/4/2017	532		594		375		621	
5/16/2018	301		393		491		345	
6/27/2018					349			
11/15/2018	480		625		339		699	
1/11/2019							739	
3/12/2019							681	
5/22/2019	535		719		357		731	
7/16/2019			585				671	
11/15/2021		504		571		337		662

Within Limit

Prediction Limit
Intrawell Parametric

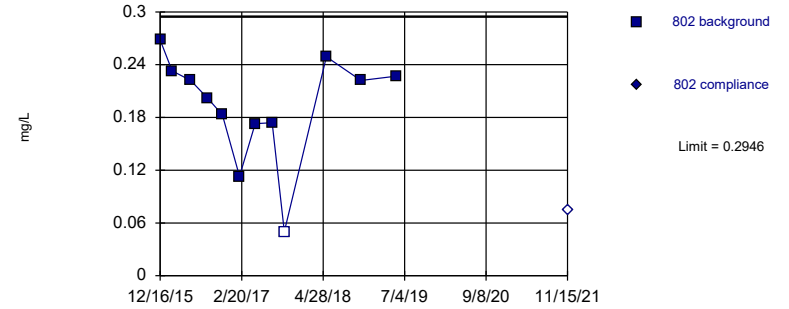


Background Data Summary: Mean=0.1577, Std. Dev.=0.02573, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8945, critical = 0.805. Kappa = 1.664 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Fluoride Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

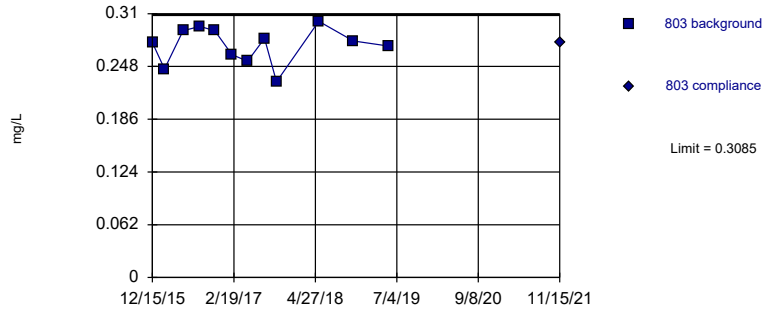


Background Data Summary: Mean=0.193, Std. Dev.=0.06104, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8925, critical = 0.805. Kappa = 1.664 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Fluoride Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

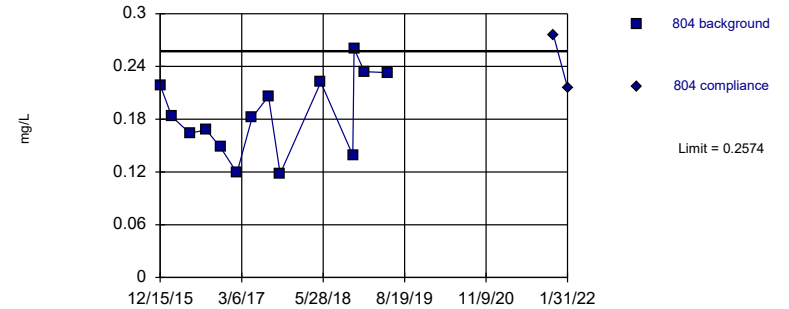


Background Data Summary: Mean=0.2728, Std. Dev.=0.02145, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9486, critical = 0.805. Kappa = 1.664 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Fluoride Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.1854, Std. Dev.=0.04504, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9562, critical = 0.825. Kappa = 1.6 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Fluoride Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

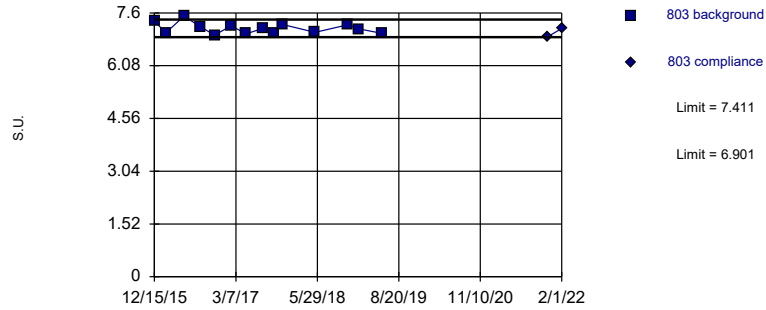
Constituent: Fluoride, pH Analysis Run 3/9/2022 10:19 AM View: Ash Pond III

Sibley Client: SCS Engineers Data: Sibley

	805	805	806R	806R	801	801	802	802
12/15/2015	0.148							
12/16/2015					7.39		7.53	
2/17/2016	0.155				6.7		6.58	
5/26/2016	0.191				8.06		8.16	
6/2/2016			0.252					
7/19/2016			0.242					
8/23/2016	0.172		0.253		7.37		7.2	
11/10/2016	0.17				6.56		6.39	
11/11/2016			0.197					
2/9/2017	0.178		0.205		6.7		6.25	
3/22/2017			0.224					
5/3/2017	0.161		0.195		6.42		6.37	
8/1/2017	0.194		0.223		7.23		6.73	
10/4/2017	0.121		0.129		6.46		6.3	
11/16/2017					7.14			
11/17/2017							6.85	
12/28/2017					6.53			
5/16/2018	0.203		0.229		7		6.89	
6/27/2018					6.9		6.68	
8/8/2018					6.49			
11/8/2018	0.137		0.15					
11/15/2018	0.196		0.202		6.78		6.68	
1/11/2019					6.58		6.66	
3/12/2019					6.84		6.91	
5/22/2019	0.201		0.215		6.87		6.77	
7/16/2019					6.71			
8/21/2019					6.65			
11/15/2021		0.213		0.222		6.34		6.1
2/1/2022						6.72		

Within Limits

Prediction Limit Intrawell Parametric

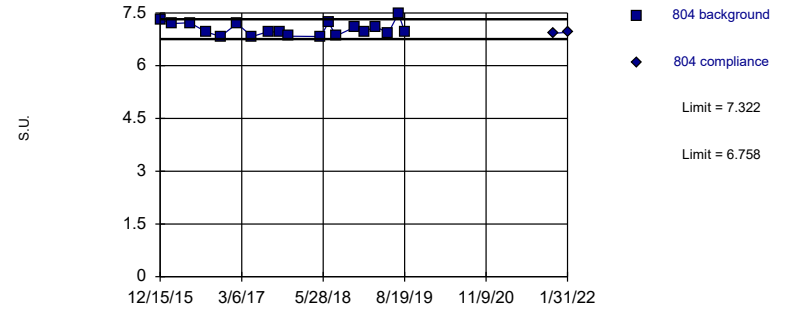


Background Data Summary: Mean=7.156, Std. Dev.=0.1594, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9228, critical = 0.825. Kappa = 1.6 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: pH Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
 Sibley Client: SCS Engineers Data: Sibley

Within Limits

Prediction Limit Intrawell Parametric

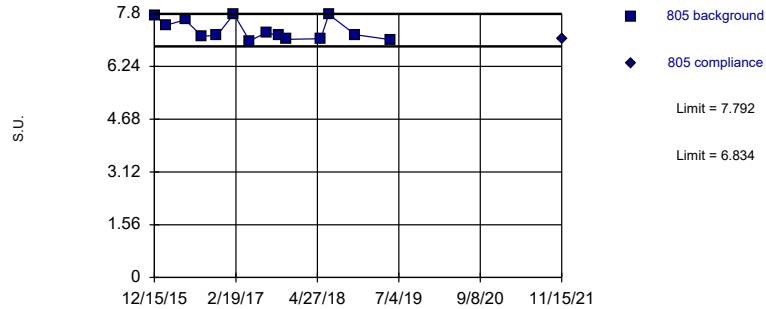


Background Data Summary: Mean=7.04, Std. Dev.=0.1903, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9025, critical = 0.863. Kappa = 1.48 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: pH Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
 Sibley Client: SCS Engineers Data: Sibley

Within Limits

Prediction Limit Intrawell Parametric

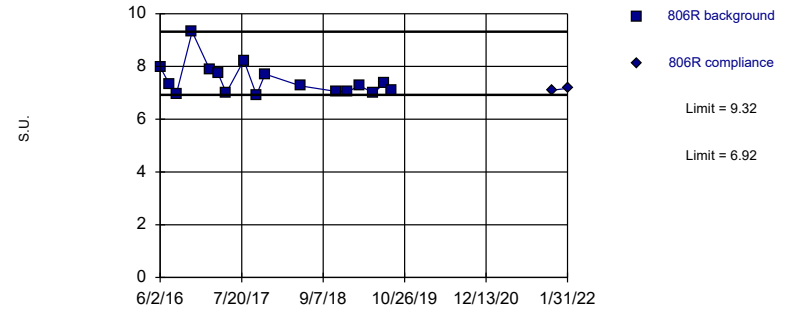


Background Data Summary: Mean=7.313, Std. Dev.=0.2995, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8296, critical = 0.825. Kappa = 1.6 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: pH Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
 Sibley Client: SCS Engineers Data: Sibley

Within Limits

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. Limits are highest and lowest of 17 background values. Well-constituent pair annual alpha = 0.003639. Individual comparison alpha = 0.00182 (1 of 3).

Constituent: pH Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
 Sibley Client: SCS Engineers Data: Sibley

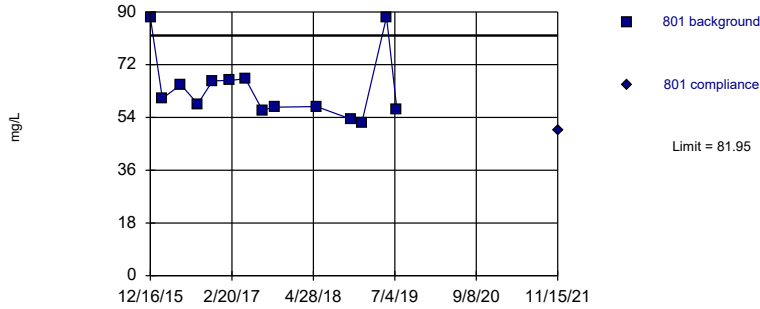
Prediction Limit

Constituent: pH Analysis Run 3/9/2022 10:19 AM View: Ash Pond III

Sibley Client: SCS Engineers Data: Sibley

	803	803	804	804	805	805	806R	806R
12/15/2015	7.36		7.32		7.74			
2/17/2016	7.03		7.2		7.46			
5/26/2016	7.51		7.22		7.62			
6/2/2016							7.98	
7/19/2016							7.33	
8/23/2016	7.2		6.96		7.14		6.95	
11/10/2016	6.96		6.83		7.15			
11/11/2016							9.32	
2/9/2017	7.23		7.2		7.79		7.88	
3/22/2017							7.75	
5/3/2017	7		6.83		7		7	
8/1/2017	7.15		6.97		7.24		8.23	
10/4/2017	7.02		6.95		7.15		6.92	
11/16/2017	7.27		6.84		7.04			
11/17/2017							7.71	
5/16/2018	7.04		6.83		7.06		7.26	
6/27/2018			7.23		7.78			
8/8/2018			6.85					
11/15/2018	7.26		7.09		7.18		7.05	
1/11/2019	7.14		6.97				7.05	
3/12/2019			7.11				7.27	
5/22/2019	7.01		6.93		7.03		6.99	
7/16/2019			7.48				7.37	
8/21/2019			6.95				7.08	
11/15/2021		6.91		6.92		7.04		7.1
1/31/2022				6.95				7.17
2/1/2022		7.15						

Within Limit Prediction Limit
Intrawell Parametric



Prediction Limit

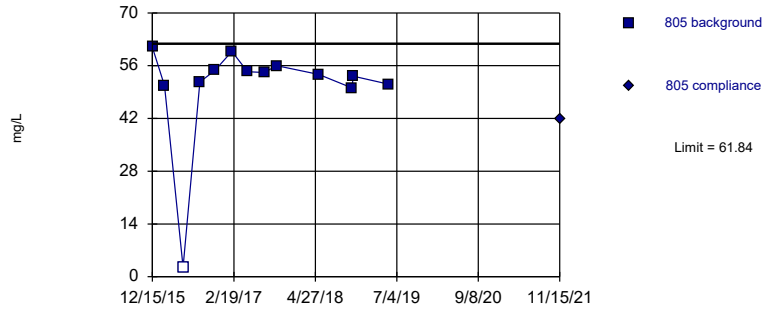
Constituent: Sulfate Analysis Run 3/9/2022 10:19 AM View: Ash Pond III

Sibley Client: SCS Engineers Data: Sibley

	801	801	802	802	803	803	804	804
12/15/2015					175		<5	
12/16/2015	88.1		33.3					
2/17/2016	60.5		35.5		162		<5	
5/26/2016	65.2		26.1		135		<5	
8/23/2016	58.6		41.2		130		<5	
11/10/2016	66.5		38		135		<5	
2/9/2017	66.6		88.9		157		<5	
5/3/2017	67.2		35.2		127		<5	
8/1/2017	56.5		54.2		124		<5	
10/4/2017	57.5		69.4		116		<5	
5/16/2018	57.7		33.9		124		<5	
9/27/2018							<5	
11/8/2018							14.1	
11/15/2018	53.4		34		116		25.8	
1/11/2019	52.3		37.1		125		31.8	
3/12/2019							<5	
5/22/2019	88.3		35.4		120		<5	
7/16/2019	56.6						<5	
11/15/2021		49.4		68.7		110		<5

Within Limit

Prediction Limit
 Intrawell Parametric

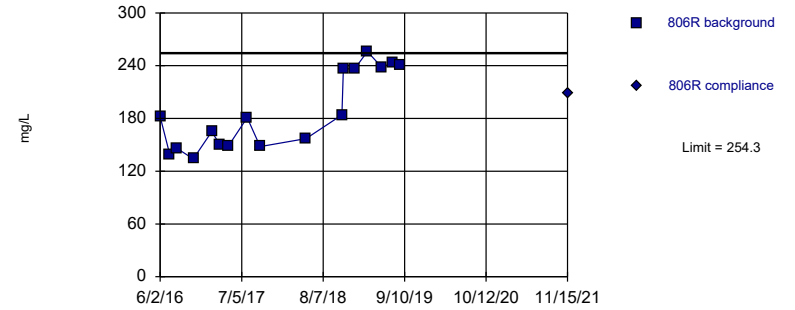


Background Data Summary (based on cube transformation): Mean=148642, Std. Dev.=53825, n=13, 7.692% NDs.
 Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8253, critical = 0.814. Kappa = 1.632 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
 Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
 Intrawell Parametric



Background Data Summary: Mean=187.5, Std. Dev.=44.02, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8518, critical = 0.851. Kappa = 1.517 (c=7, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 3/9/2022 10:17 AM View: Ash Pond III
 Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Sulfate Analysis Run 3/9/2022 10:19 AM View: Ash Pond III

Sibley Client: SCS Engineers Data: Sibley

	805	805	806R	806R
12/15/2015	60.9			
2/17/2016	50.7			
5/26/2016	<5			
6/2/2016			182	
7/19/2016			139	
8/23/2016	51.7		146	
11/10/2016	54.7			
11/11/2016			134	
2/9/2017	59.8		165	
3/22/2017			150	
5/3/2017	54.4		149	
8/1/2017	54.2		181	
10/4/2017	56		148	
5/16/2018	53.7		157	
11/8/2018	50.1		184	
11/15/2018	53.2		236	
1/11/2019			237	
3/12/2019			256	
5/22/2019	51.1		238	
7/16/2019			244	
8/21/2019			241	
11/15/2021		41.8		209

Prediction Limit

Sibley Client: SCS Engineers Data: Sibley Printed 3/9/2022, 10:19 AM

<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>
Boron (mg/L)	801	0.477	n/a	11/15/2021	0.1ND	No	13	0	No	0.001254	Param Intra 1 of 3
Boron (mg/L)	802	0.221	n/a	11/15/2021	0.1ND	No	12	91.67	n/a	0.002173	NP Intra (NDs) 1 of 3
Boron (mg/L)	803	2.954	n/a	11/15/2021	2.94	No	12	0	No	0.001254	Param Intra 1 of 3
Boron (mg/L)	804	8.71	n/a	1/31/2022	15.9	Yes	20	0	n/a	0.000...	NP Intra (normality) ...
Boron (mg/L)	805	0.2	n/a	11/15/2021	0.1ND	No	13	100	n/a	0.001886	NP Intra (NDs) 1 of 3
Boron (mg/L)	806R	5.803	n/a	11/15/2021	4.4	No	17	0	No	0.001254	Param Intra 1 of 3
Calcium (mg/L)	801	168	n/a	11/15/2021	144	No	15	0	No	0.001254	Param Intra 1 of 3
Calcium (mg/L)	802	111.6	n/a	11/15/2021	60.8	No	16	0	No	0.001254	Param Intra 1 of 3
Calcium (mg/L)	803	130.2	n/a	11/15/2021	117	No	14	0	No	0.001254	Param Intra 1 of 3
Calcium (mg/L)	804	178.4	n/a	11/15/2021	145	No	17	0	No	0.001254	Param Intra 1 of 3
Calcium (mg/L)	805	106.9	n/a	11/15/2021	86.7	No	14	0	x^2	0.001254	Param Intra 1 of 3
Calcium (mg/L)	806R	177.1	n/a	11/15/2021	149	No	18	0	No	0.001254	Param Intra 1 of 3
Chloride (mg/L)	801	143.9	n/a	2/1/2022	147	Yes	20	0	No	0.001254	Param Intra 1 of 3
Chloride (mg/L)	802	64.66	n/a	11/15/2021	50.3	No	14	0	No	0.001254	Param Intra 1 of 3
Chloride (mg/L)	803	17.17	n/a	2/1/2022	19.6	Yes	14	0	No	0.001254	Param Intra 1 of 3
Chloride (mg/L)	804	19.5	n/a	1/31/2022	28.4	Yes	17	0	x^2	0.001254	Param Intra 1 of 3
Chloride (mg/L)	805	12.2	n/a	11/15/2021	6.38	No	14	0	No	0.001254	Param Intra 1 of 3
Chloride (mg/L)	806R	30.49	n/a	11/15/2021	27.8	No	16	0	No	0.001254	Param Intra 1 of 3
Dissolved Solids (mg/l)	801	736.9	n/a	11/15/2021	633	No	13	0	No	0.001254	Param Intra 1 of 3
Dissolved Solids (mg/l)	802	455.2	n/a	11/15/2021	335	No	12	0	No	0.001254	Param Intra 1 of 3
Dissolved Solids (mg/l)	803	630.3	n/a	11/15/2021	504	No	12	0	x^2	0.001254	Param Intra 1 of 3
Dissolved Solids (mg/l)	804	706.2	n/a	11/15/2021	571	No	13	0	x^2	0.001254	Param Intra 1 of 3
Dissolved Solids (mg/l)	805	491	n/a	11/15/2021	337	No	13	0	n/a	0.001886	NP Intra (normality) ...
Dissolved Solids (mg/l)	806R	749.9	n/a	11/15/2021	662	No	15	0	x^2	0.001254	Param Intra 1 of 3
Fluoride (mg/L)	801	0.2005	n/a	11/15/2021	0.15	No	12	0	No	0.001254	Param Intra 1 of 3
Fluoride (mg/L)	802	0.2946	n/a	11/15/2021	0.075ND	No	12	8.333	No	0.001254	Param Intra 1 of 3
Fluoride (mg/L)	803	0.3085	n/a	11/15/2021	0.276	No	12	0	No	0.001254	Param Intra 1 of 3
Fluoride (mg/L)	804	0.2574	n/a	1/31/2022	0.216	No	14	0	No	0.001254	Param Intra 1 of 3
Fluoride (mg/L)	805	0.2136	n/a	11/15/2021	0.213	No	13	0	No	0.001254	Param Intra 1 of 3
Fluoride (mg/L)	806R	0.2685	n/a	11/15/2021	0.222	No	13	0	No	0.001254	Param Intra 1 of 3
pH (S.U.)	801	7.46	6.278	2/1/2022	6.72	No	20	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	802	7.559	6.06	11/15/2021	6.1	No	16	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	803	7.411	6.901	2/1/2022	7.15	No	14	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	804	7.322	6.758	1/31/2022	6.95	No	19	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	805	7.792	6.834	11/15/2021	7.04	No	14	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	806R	9.32	6.92	1/31/2022	7.17	No	17	0	n/a	0.00182	NP Intra (normality) ...
Sulfate (mg/L)	801	81.95	n/a	11/15/2021	49.4	No	14	0	x^(1/3)	0.001254	Param Intra 1 of 3
Sulfate (mg/L)	802	70.53	n/a	11/15/2021	68.7	No	13	0	ln(x)	0.001254	Param Intra 1 of 3
Sulfate (mg/L)	803	164.8	n/a	11/15/2021	110	No	13	0	No	0.001254	Param Intra 1 of 3
Sulfate (mg/L)	804	31.8	n/a	11/15/2021	2.5ND	No	17	82.35	n/a	0.000...	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	805	61.84	n/a	11/15/2021	41.8	No	13	7.692	x^3	0.001254	Param Intra 1 of 3
Sulfate (mg/L)	806R	254.3	n/a	11/15/2021	209	No	17	0	No	0.001254	Param Intra 1 of 3

Sibley Generating Station
Determination of Statistically Significant Increases
Fly Ash Impoundment
March 28, 2022

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

Automatically Remove Outliers (Parametric test only)

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 Label Constituents
- Combine Dates Label Axes
- Use Default Constituent Names Note Cation-Anion Balance (Piper only)
- Use Constituent Definition File

Appendix E.2

Closure Monitoring Statistical Analyses for Statistically Significant Increase

MEMORANDUM

March 28, 2022

**To: Sibley Generating Station
33200 E Johnson Road
Sibley, Missouri 64088
Eversource Energy Missouri West, Inc.**



From: SCS Engineers

**RE: Determination of Statistically Significant Increase - Fly Ash Impoundment
Appendix IV Constituents for Assessment Monitoring 40 CFR 257.95
November 2021 Closure Confirmation Monitoring 40 CFR 257.102(c)
Completion Date February 14, 2022**

Statistical analysis of Appendix IV 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. Appendix IV groundwater samples for closure confirmation monitoring were collected on November 15, 2021 following removal of coal combustion residuals (CCR) from the Fly Ash Impoundment. Review and validation of the results from the November 2021 closure confirmation sampling event was completed on January 7, 2022, which constitutes completion and finalization of the closure confirmation monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there was a statistically significant increase (SSI) over background values 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 31, 2022.

The completed statistical evaluation identified one Appendix IV constituent above its prediction limit established for monitoring well MW-801, one Appendix IV constituent above its prediction limit established for monitoring well MW-802, one Appendix IV constituent above its prediction limit established for monitoring well MW-804, and one Appendix IV constituent above its prediction limit established for monitoring well MW-806R.

Monitoring Well Constituent	UPL	Observation November 15, 2021	1st Verification January 31, 2022
MW-801			
Barium	0.146	0.154	---
MW-802			
Selenium	0.00266	0.00511	---
MW-804			
Fluoride	0.2441	0.275	---

Monitoring Well Constituent	UPL	Observation November 15, 2021	1st Verification January 31, 2022
MW-806R			
Molybdenum	1.395	1.64	1.63

UPL - Upper Prediction Limit
(---) – Not Sampled

Determination: A statistical evaluation was completed for all Appendix IV assessment monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified SSIs for barium in monitoring well MW-801, selenium in monitoring well MW-802, fluoride in monitoring well MW-804, and molybdenum in monitoring well 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, sample results, extra sample results collected prior to closure confirmation sampling, 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.

Sibley Generating Station
Determination of Statistically Significant Increase - Fly Ash Impoundment
Appendix IV Constituents for Assessment Monitoring
March 28, 2022

ATTACHMENT 1

Sanitas™ Output

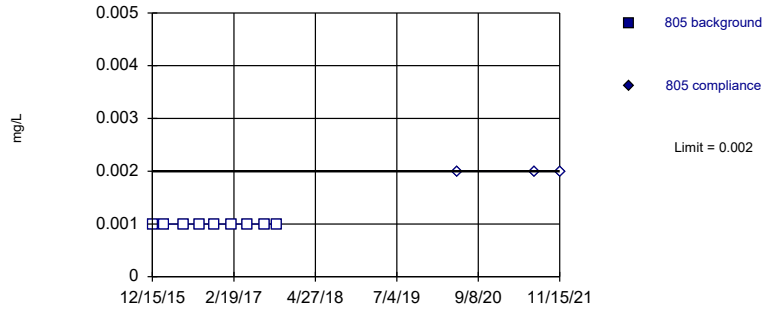
Prediction Limit

Constituent: Antimony Analysis Run 2/14/2022 5:03 PM View: Ash Pond IV
Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

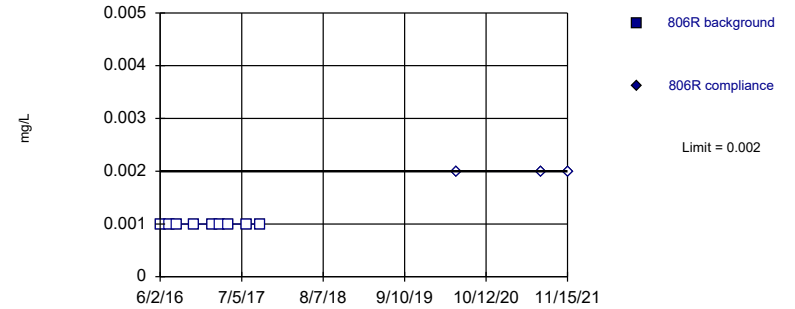


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

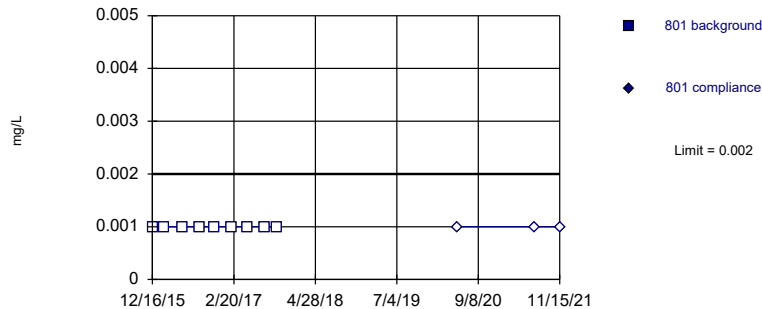


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

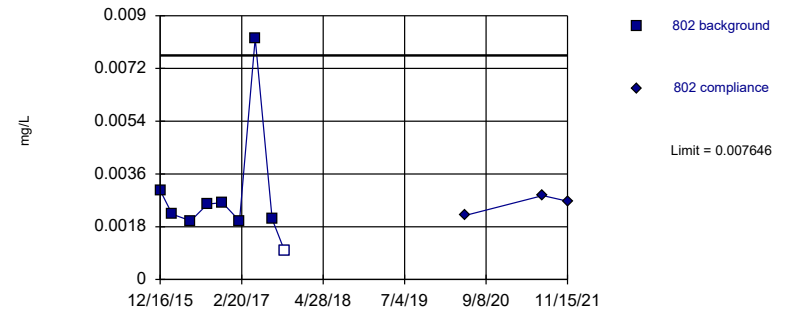


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Arsenic Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

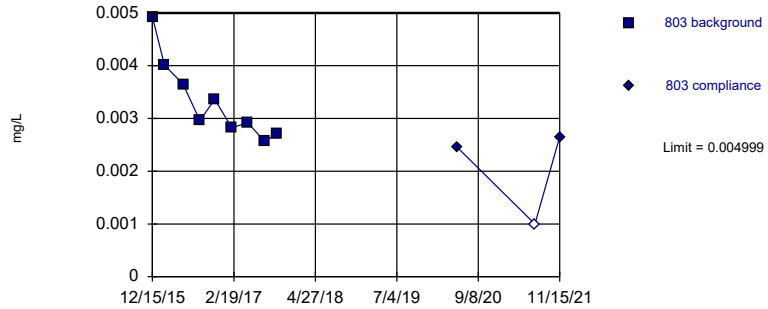
Constituent: Antimony, Arsenic Analysis Run 2/14/2022 5:03 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Parametric



Prediction Limit

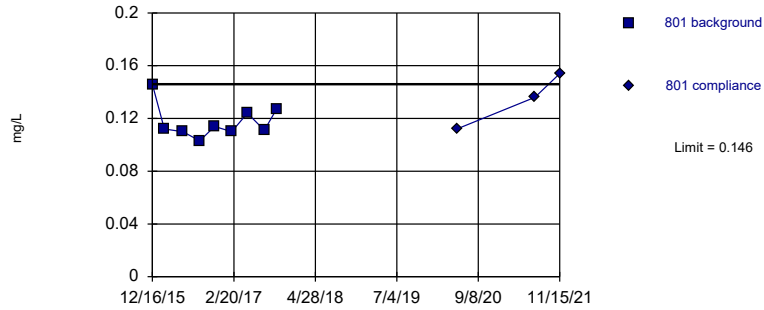
Constituent: Arsenic Analysis Run 2/14/2022 5:03 PM View: Ash Pond IV

Sibley 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

Exceeds Limit

Prediction Limit Intrawell Parametric



Prediction Limit

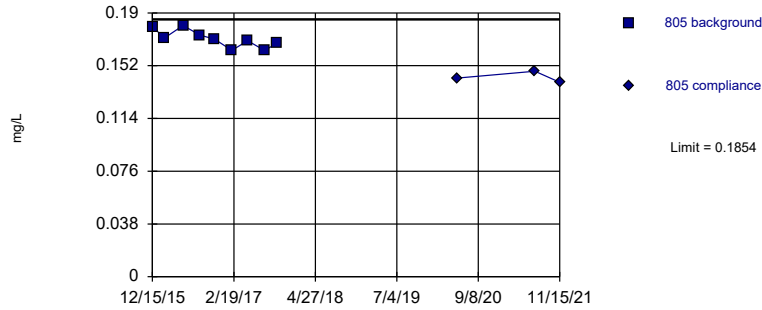
Constituent: Barium Analysis Run 2/14/2022 5:03 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Parametric



Prediction Limit

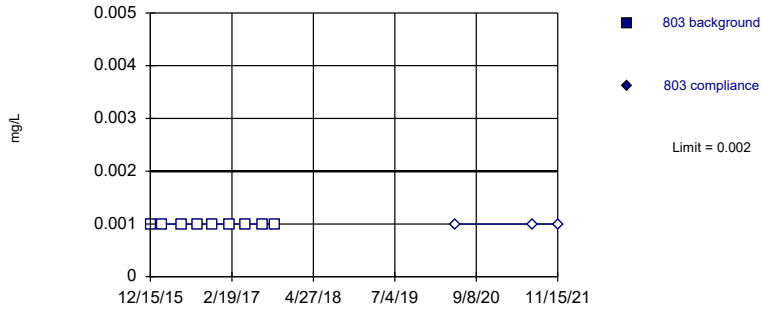
Constituent: Barium, Beryllium Analysis Run 2/14/2022 5:03 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

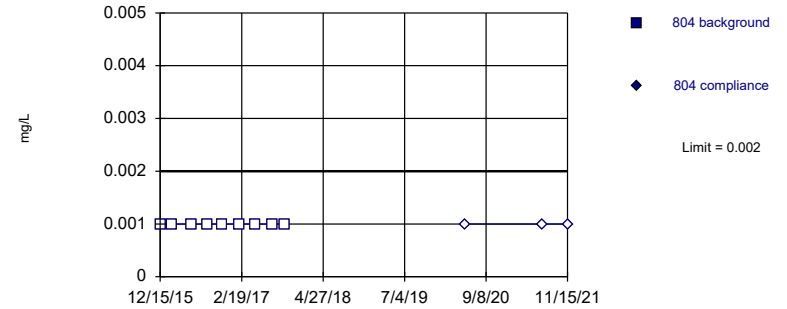


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

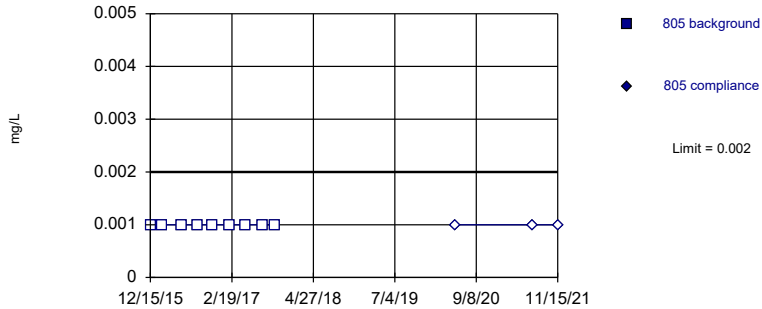


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

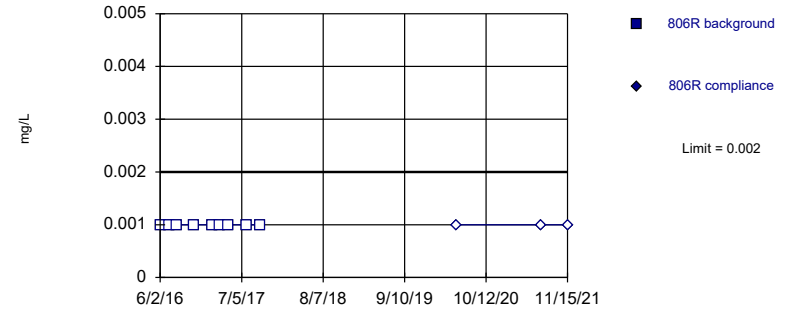


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

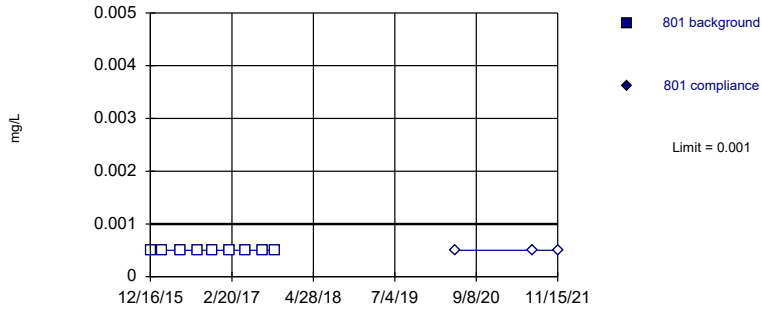
Constituent: Beryllium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

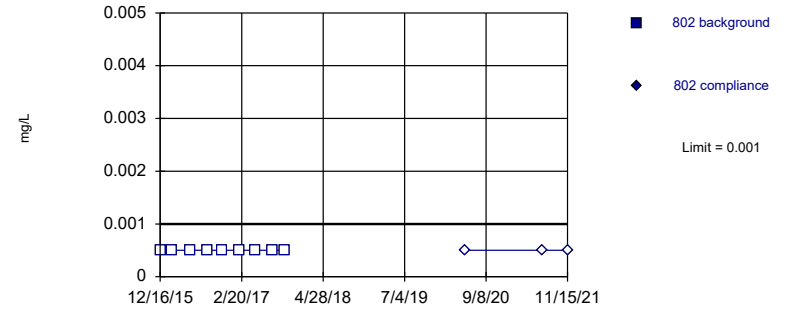


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

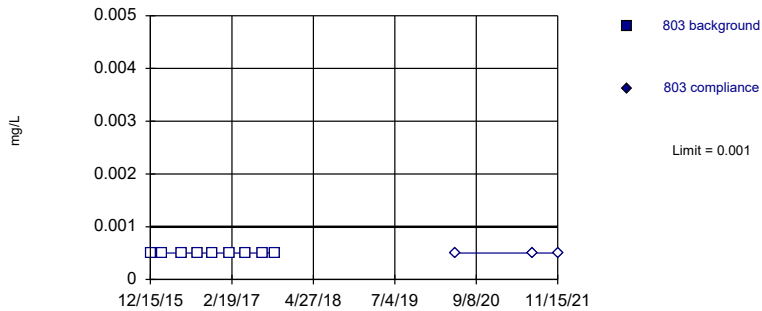


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

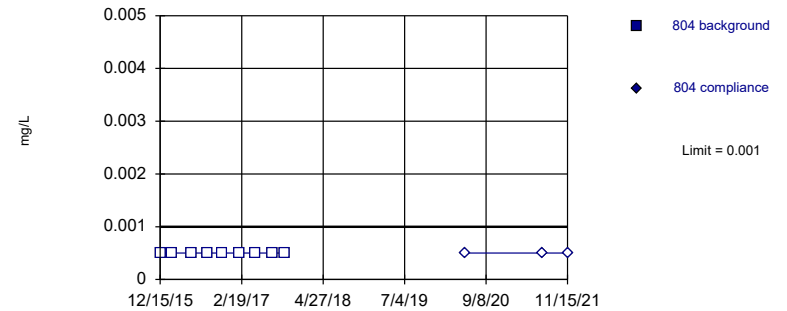


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

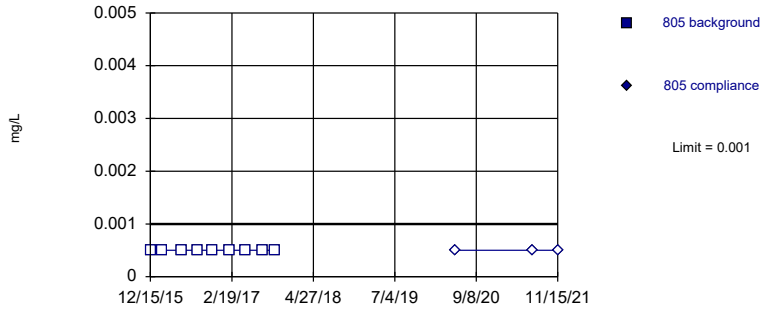
Constituent: Cadmium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

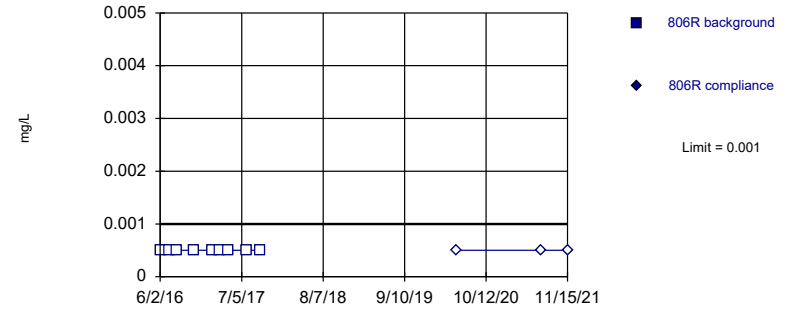


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

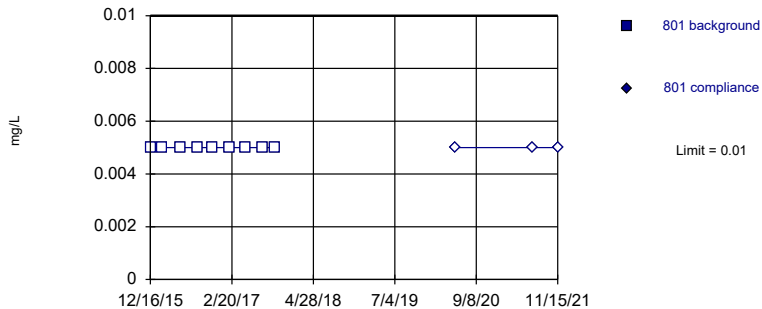


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

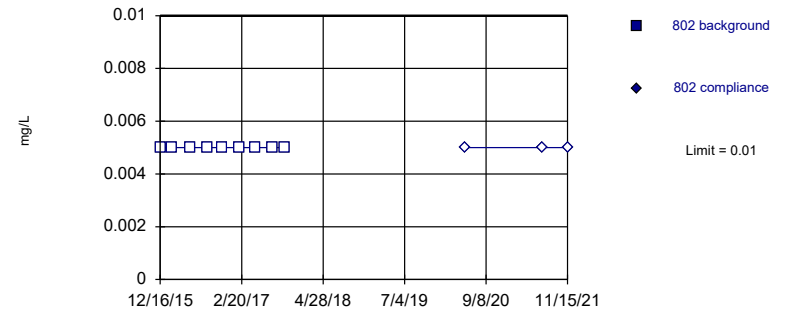


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

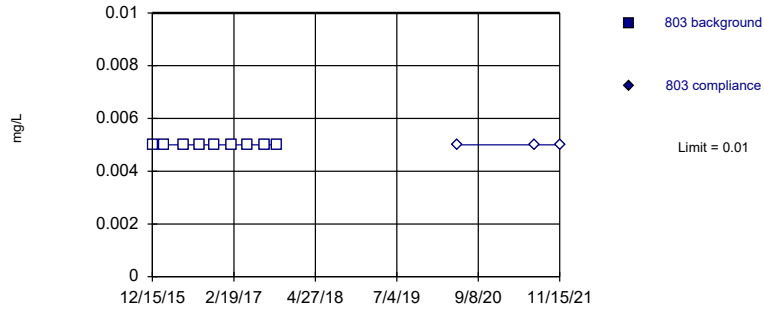
Constituent: Cadmium, Chromium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

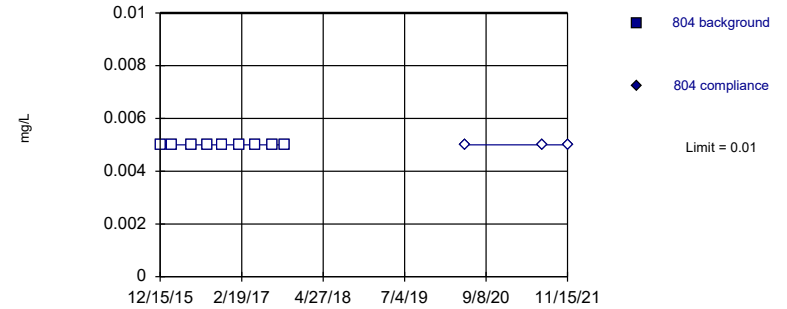


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

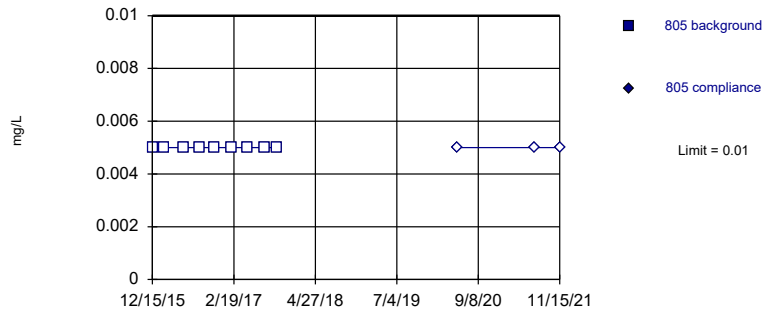


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

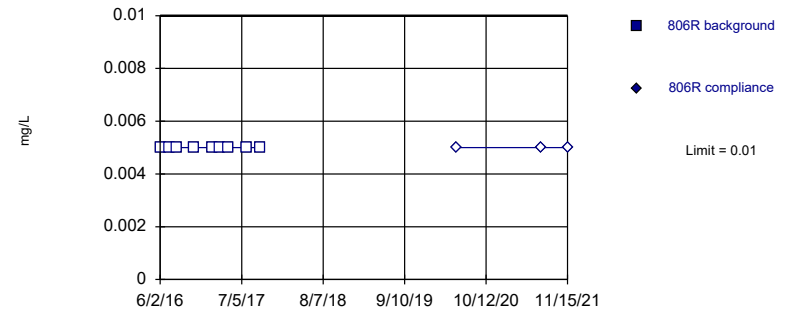


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Chromium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Prediction Limit

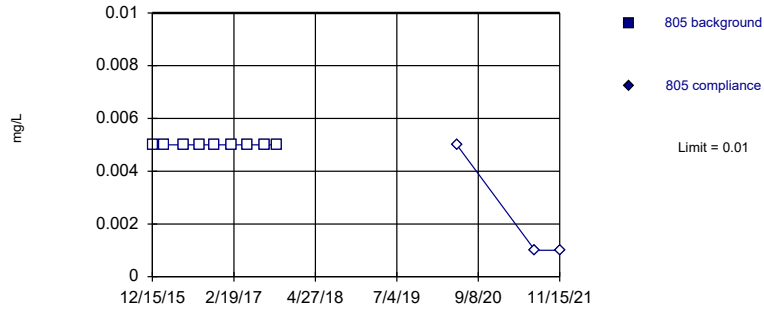
Constituent: Cobalt Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

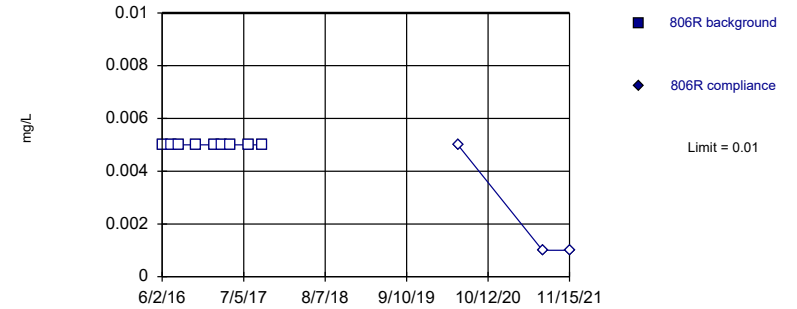


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

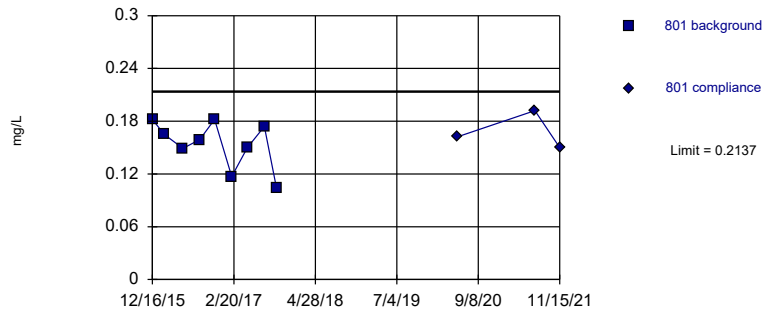


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

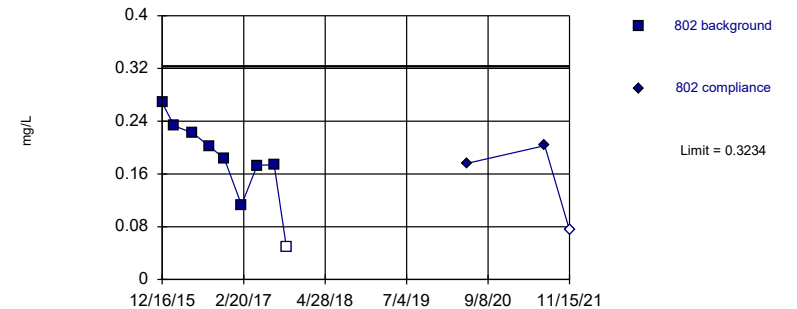


Background Data Summary: Mean=0.1536, Std. Dev.=0.02744, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.894, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

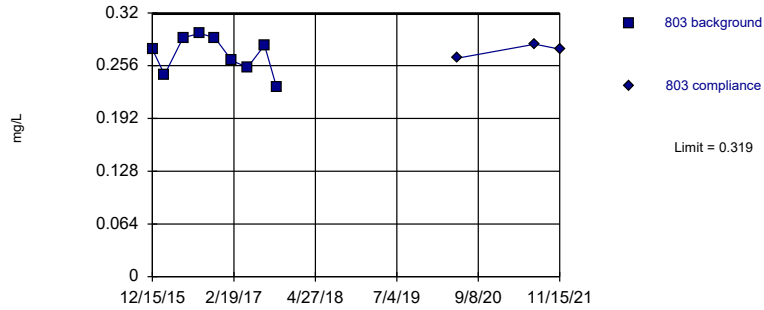
Constituent: Cobalt, Fluoride Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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	
5/18/2020		<0.01		<0.01		0.162		0.176
7/6/2021		<0.002		<0.002		0.192		0.203
11/15/2021		<0.002		<0.002		0.15		<0.15

Within Limit

Prediction Limit Intrawell Parametric

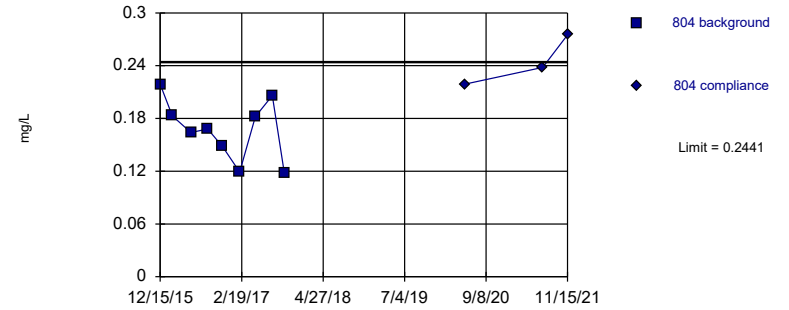


Background Data Summary: Mean=0.2692, Std. Dev.=0.0227, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9261, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Exceeds Limit

Prediction Limit Intrawell Parametric

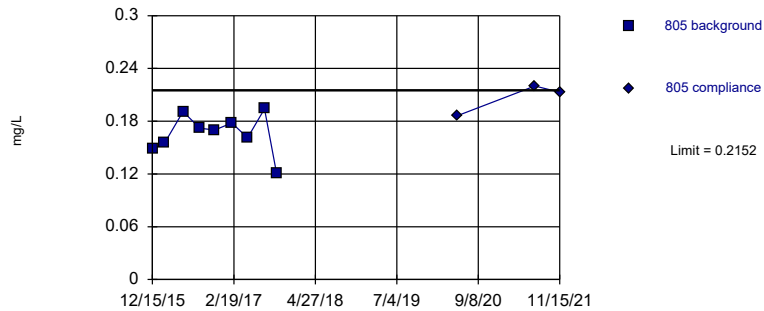


Background Data Summary: Mean=0.1674, Std. Dev.=0.03496, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9484, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric

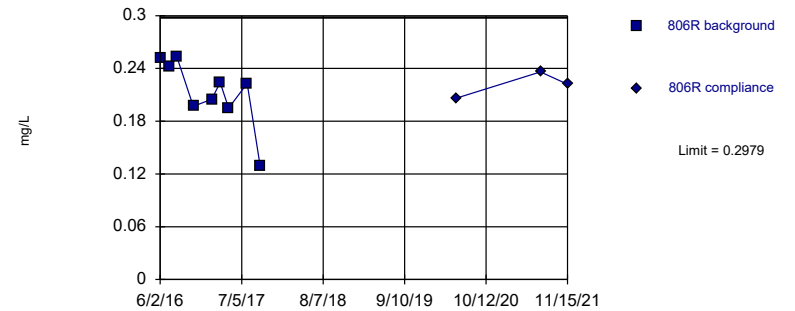


Background Data Summary: Mean=0.1656, Std. Dev.=0.02263, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9537, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

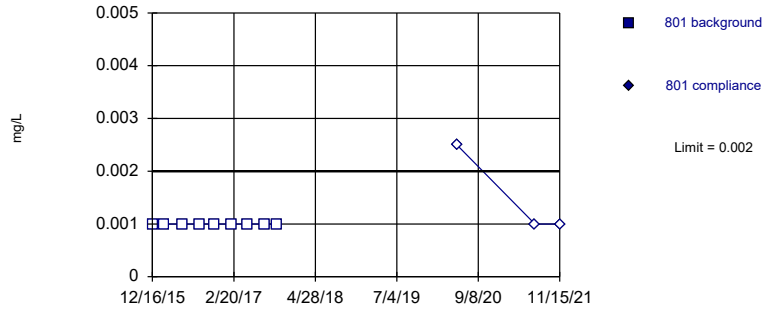
Constituent: Fluoride Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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	
5/18/2020		0.265		0.219		0.186		0.206
7/6/2021		0.282		0.238		0.22		0.236
11/15/2021		0.276		0.275		0.213		0.222

Within Limit

Prediction Limit
Intrawell Non-parametric



Prediction Limit

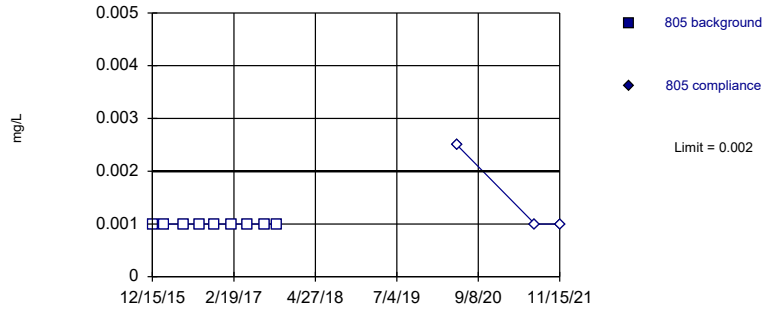
Constituent: Lead Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

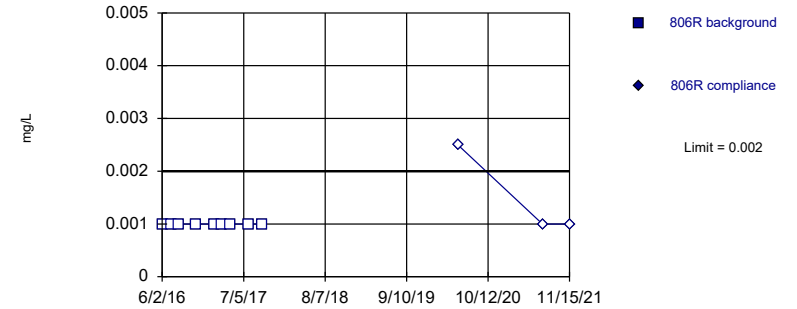


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

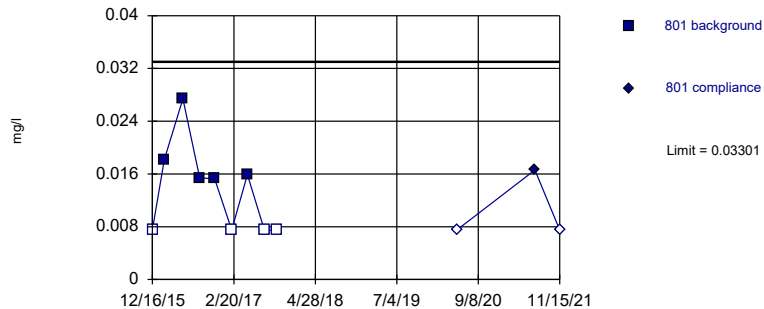


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

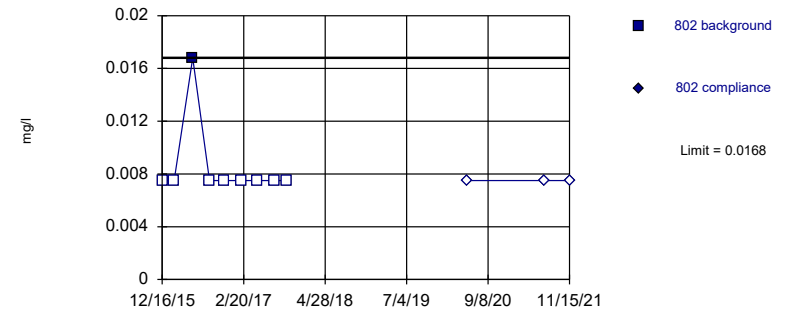


Background Data Summary (after Aitchison's Adjustment): Mean=0.01024, Std. Dev.=0.01038, n=9, 44.44% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8326, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Lithium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

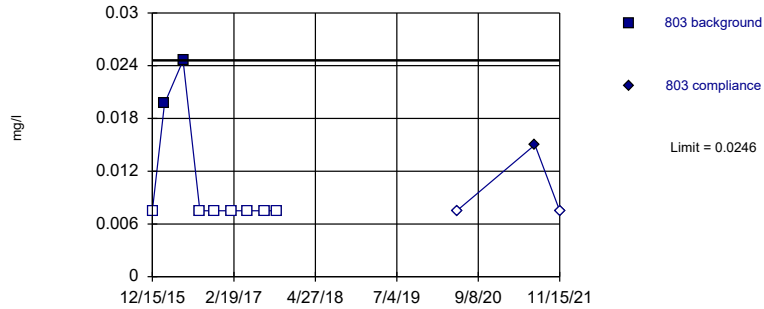
Prediction Limit

Constituent: Lead, Lithium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV
Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

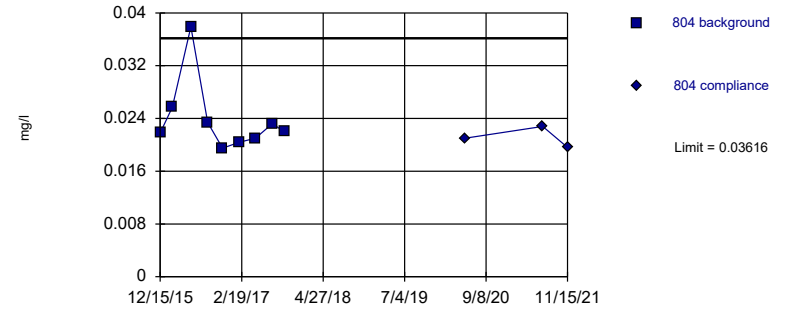


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

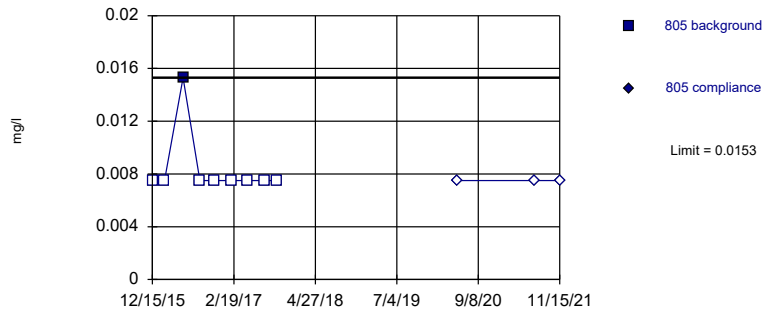


Background Data Summary (based on natural log transformation): Mean=-3.754, Std. Dev.=0.1981, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7756, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Lithium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

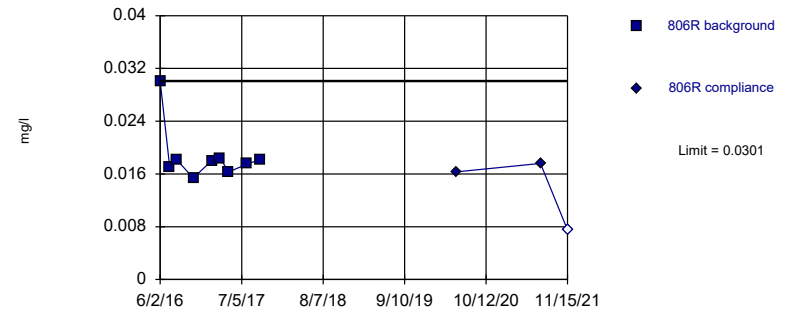


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

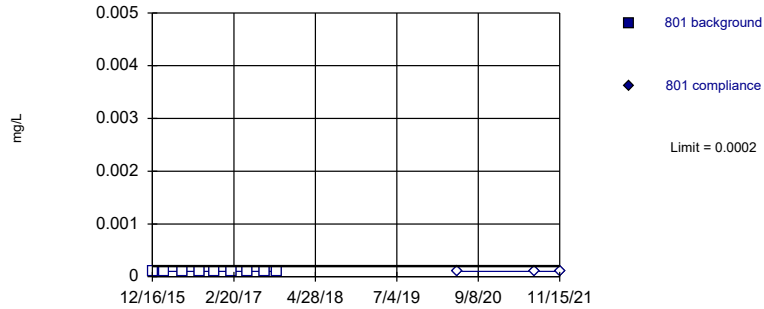
Constituent: Lithium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

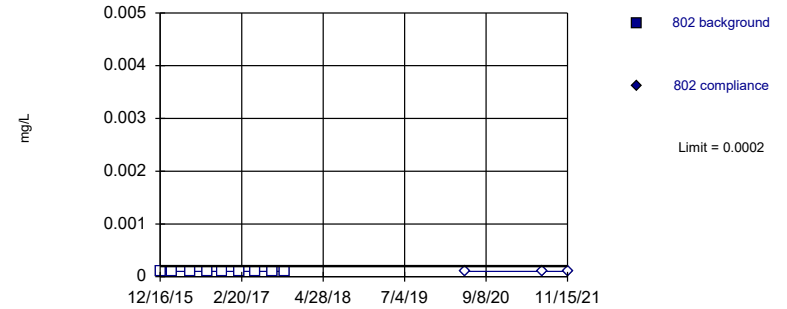


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

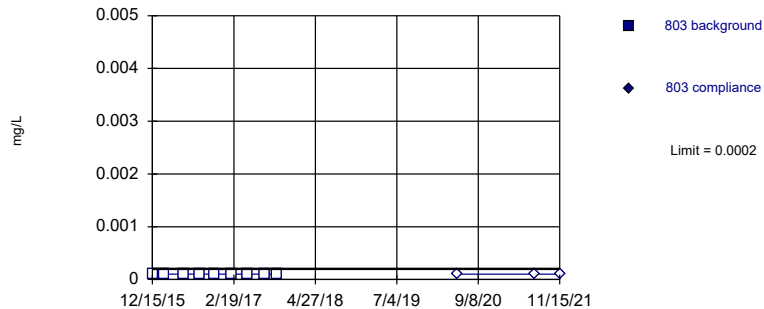


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

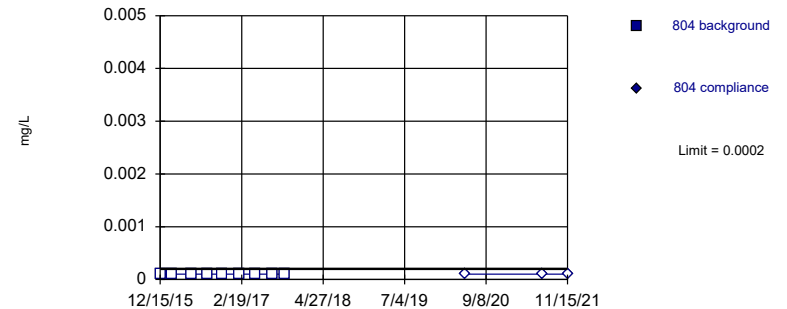


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

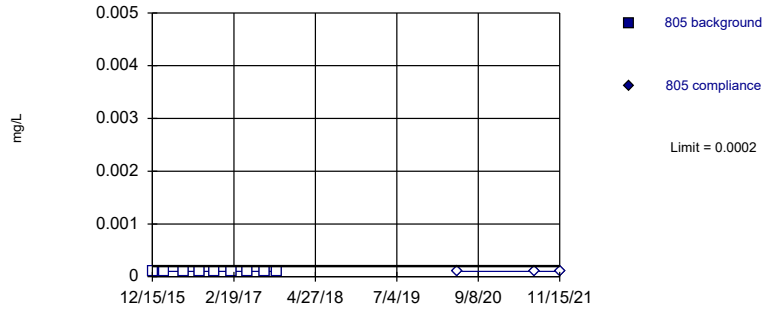
Constituent: Mercury Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

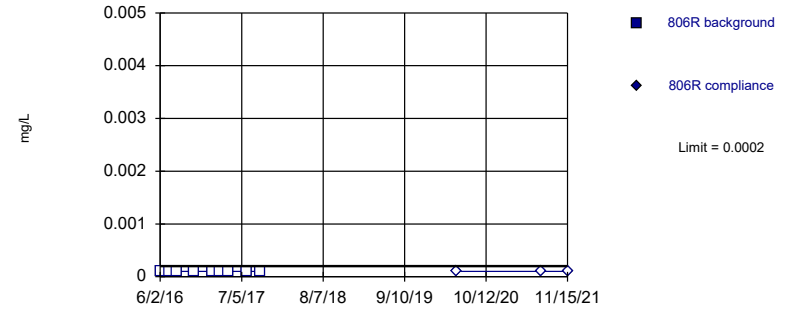


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

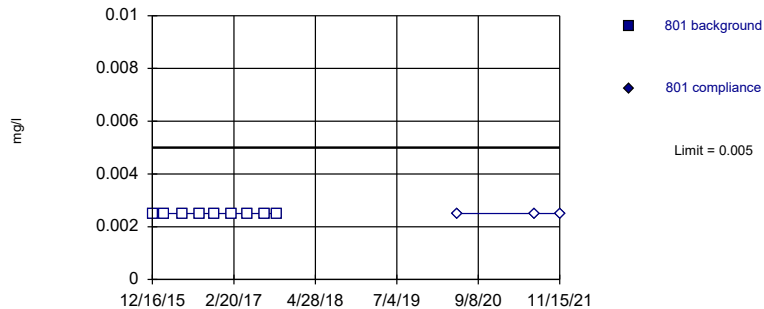


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

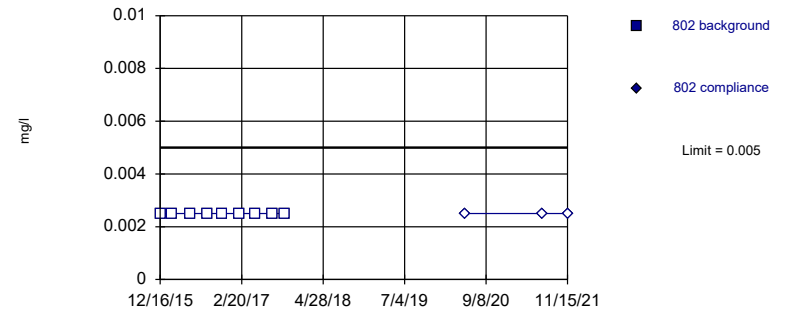


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

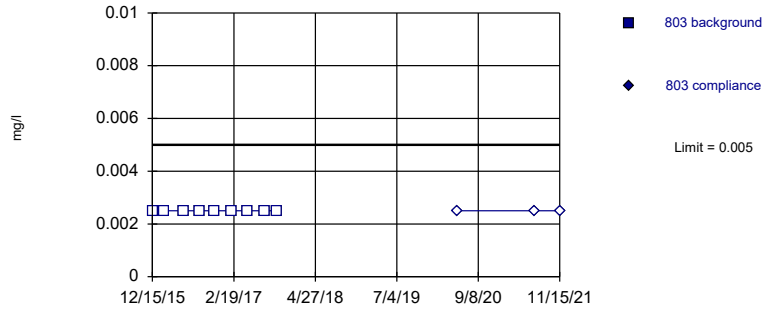
Prediction Limit

Constituent: Mercury, Molybdenum Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV
Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

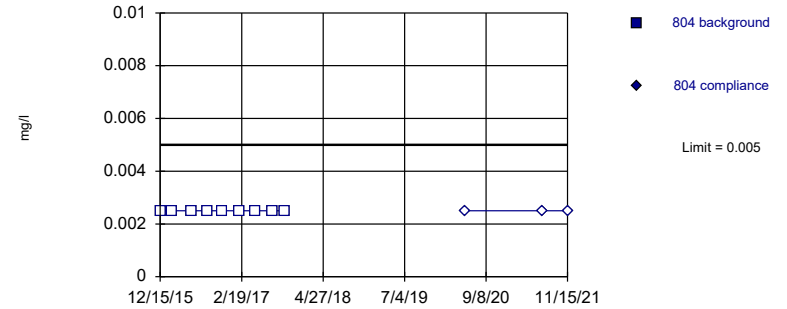


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

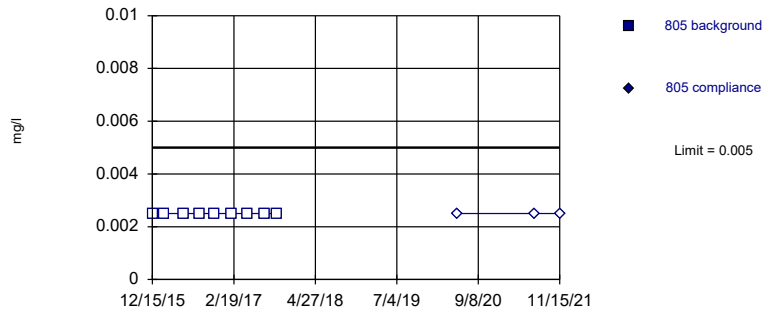


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

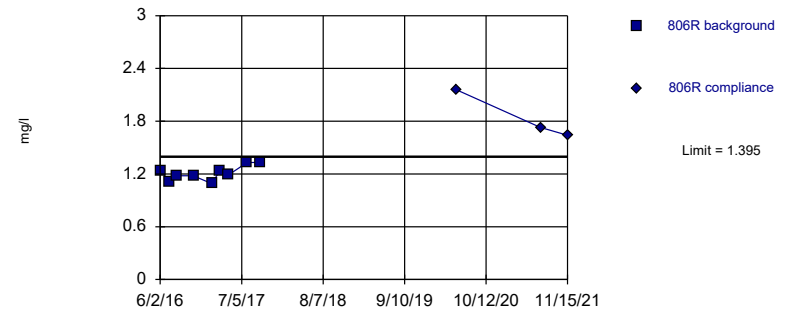


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

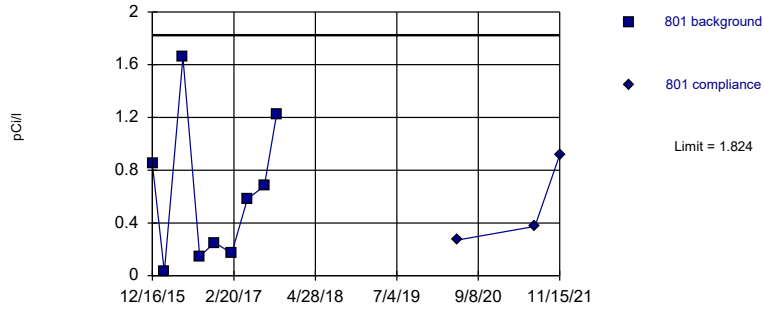
Constituent: Molybdenum Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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	
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

Within Limit

Prediction Limit
Intrawell Parametric

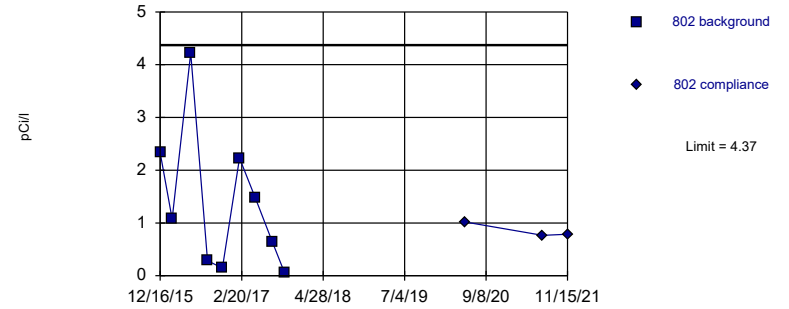


Background Data Summary: Mean=0.6204, Std. Dev.=0.5487, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.913, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

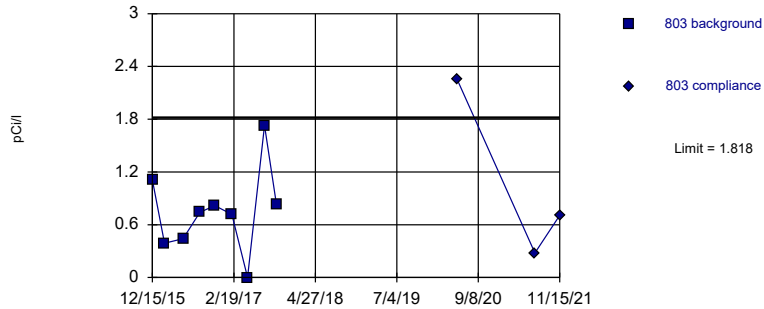


Background Data Summary: Mean=1.388, Std. Dev.=1.36, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8858, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

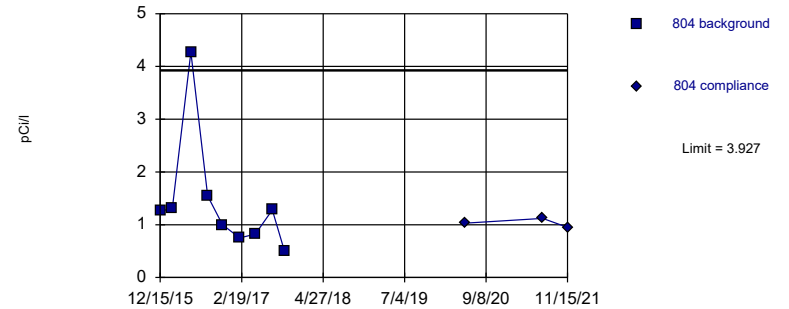


Background Data Summary: Mean=0.7523, Std. Dev.=0.486, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9475, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

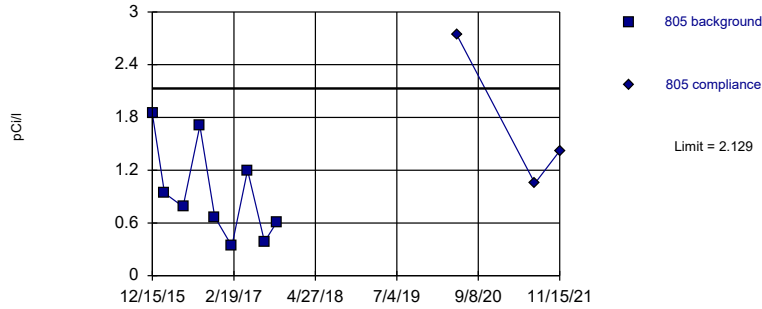
Constituent: Radium Combined Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Parametric

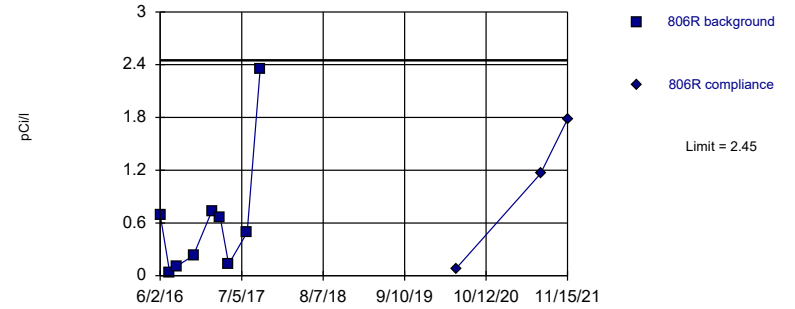


Background Data Summary: Mean=0.9412, Std. Dev.=0.5416, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9047, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

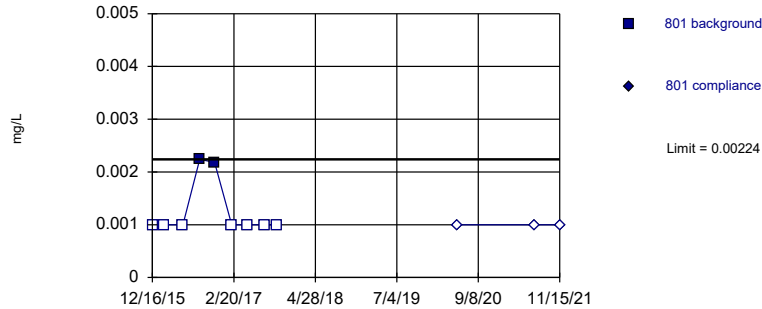


Background Data Summary (based on square root transformation): Mean=0.6773, Std. Dev.=0.4049, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9055, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

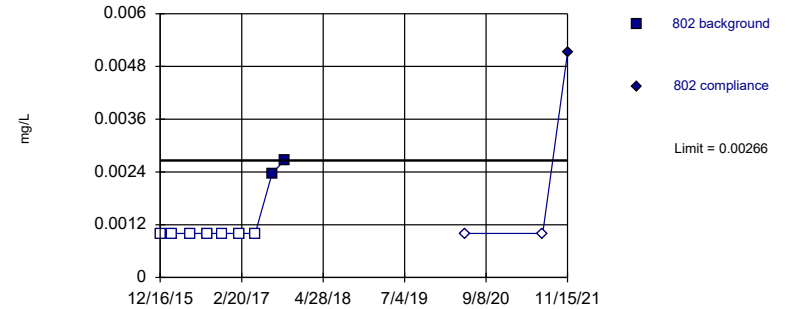


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

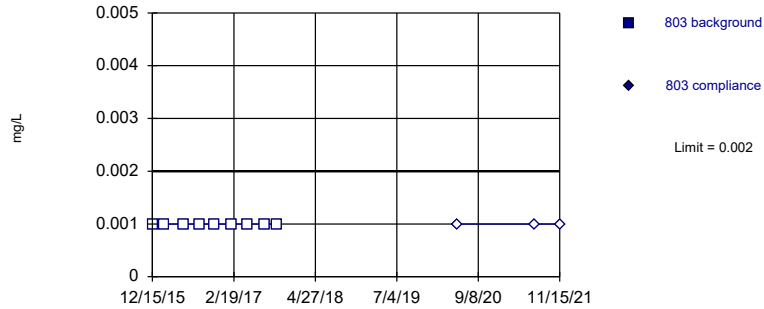
Prediction Limit

Constituent: Radium Combined, Selenium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV
 Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

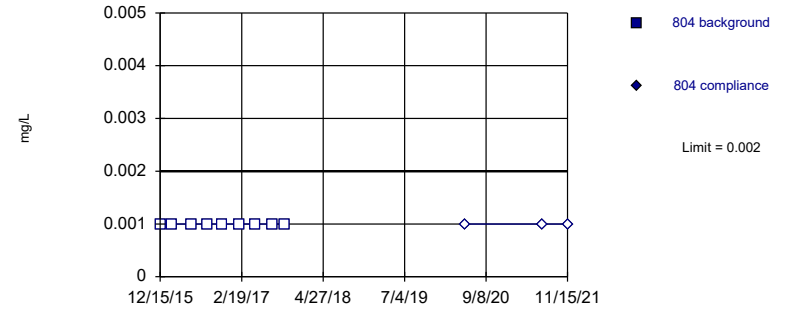


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

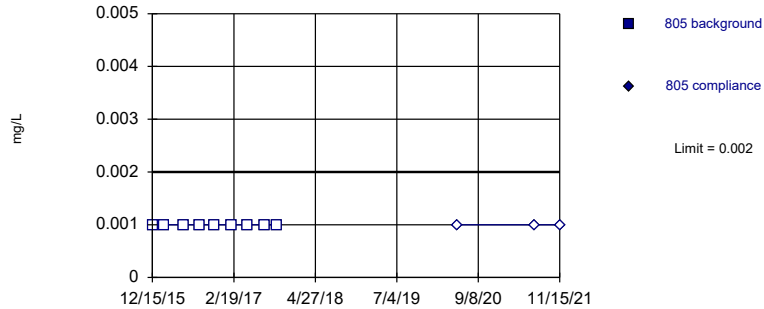


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

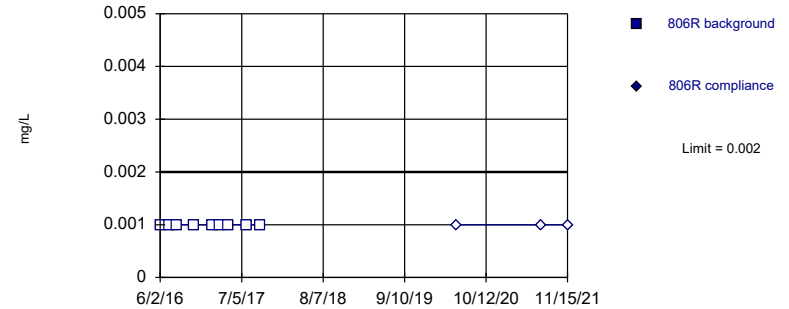


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

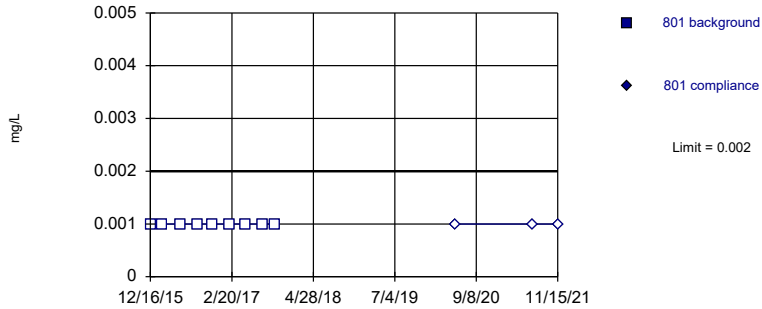
Constituent: Selenium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

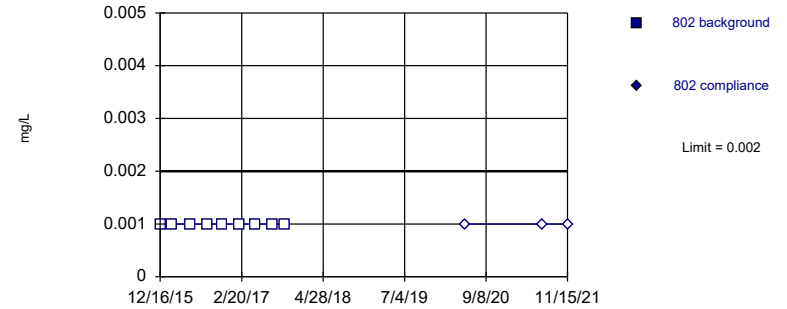


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

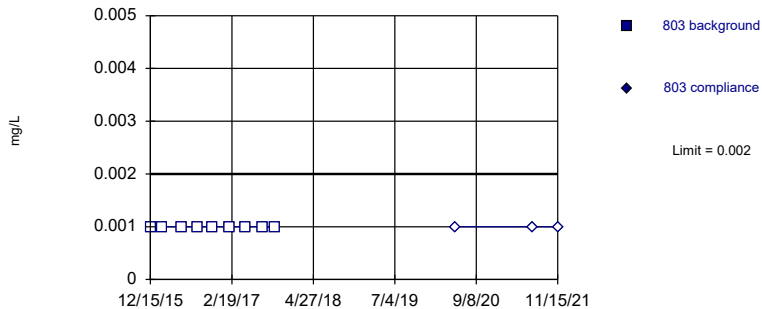


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

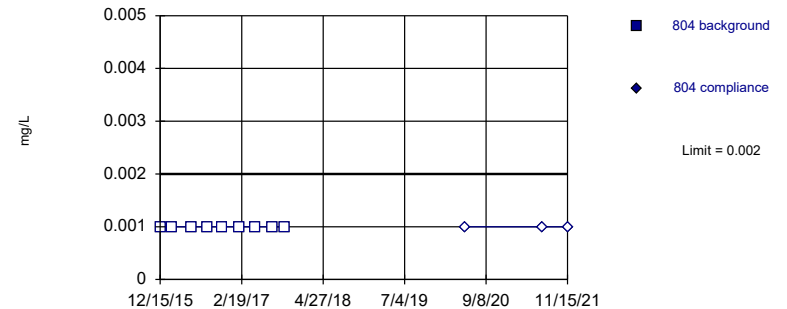


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

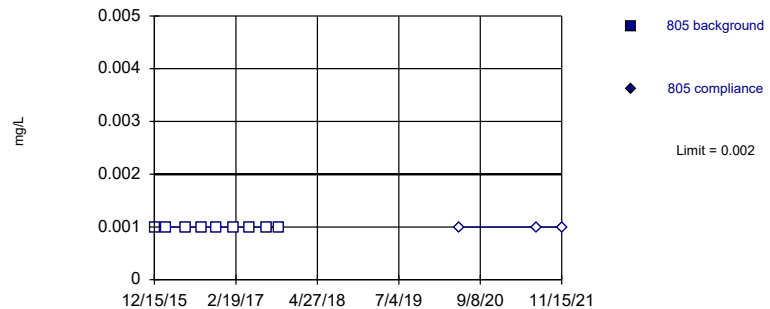
Constituent: Thallium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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		<0.002		<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

Within Limit

Prediction Limit Intrawell Non-parametric

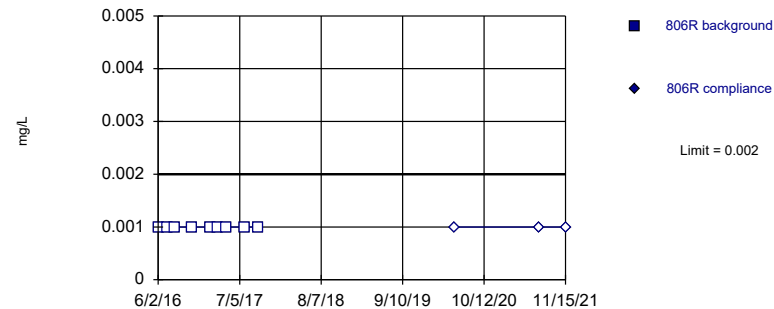


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Thallium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

	805	805	806R	806R
12/15/2015	<0.002			
2/17/2016	<0.002			
5/26/2016	<0.002			
6/2/2016			<0.002	
7/19/2016			<0.002	
8/23/2016	<0.002		<0.002	
11/10/2016	<0.002			
11/11/2016			<0.002	
2/9/2017	<0.002		<0.002	
3/22/2017			<0.002	
5/3/2017	<0.002		<0.002	
8/1/2017	<0.002		<0.002	
10/4/2017	<0.002		<0.002	
5/18/2020		<0.002		<0.002
7/6/2021		<0.002		<0.002
11/15/2021		<0.002		<0.002

Prediction Limit

Sibley Client: SCS Engineers Data: Sibley Printed 2/14/2022, 5:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	801	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	802	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	803	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	804	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	805	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	806R	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	801	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	802	0.007646	n/a	11/15/2021	0.00267	No	9	11.11	x^(1/3)	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	803	0.004999	n/a	11/15/2021	0.00265	No	9	0	No	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	804	0.01078	n/a	11/15/2021	0.00205	No	9	0	No	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	805	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	806R	0.00776	n/a	11/15/2021	0.00362	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	801	0.146	n/a	11/15/2021	0.154	Yes	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	802	0.3056	n/a	11/15/2021	0.16	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	803	0.1509	n/a	11/15/2021	0.122	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	804	0.5223	n/a	11/15/2021	0.45	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	805	0.1854	n/a	11/15/2021	0.14	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	806R	0.1276	n/a	11/15/2021	0.0723	No	9	0	No	0.000...	Param Intra 1 of 3
Beryllium (mg/L)	801	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	802	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	803	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	804	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	805	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	806R	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	801	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	802	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	803	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	804	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	805	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	806R	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	801	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	802	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	803	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	804	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	805	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	806R	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	801	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	802	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	803	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	804	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	805	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	806R	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Fluoride (mg/L)	801	0.2137	n/a	11/15/2021	0.15	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	802	0.3234	n/a	11/15/2021	0.075ND	No	9	11.11	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	803	0.319	n/a	11/15/2021	0.276	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	804	0.2441	n/a	11/15/2021	0.275	Yes	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	805	0.2152	n/a	11/15/2021	0.213	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	806R	0.2979	n/a	11/15/2021	0.222	No	9	0	No	0.000...	Param Intra 1 of 3
Lead (mg/L)	801	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	802	0.0042	n/a	11/15/2021	0.001ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3

Prediction Limit

Sibley Client: SCS Engineers Data: Sibley Printed 2/14/2022, 5:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Lead (mg/L)	803	0.00385	n/a	11/15/2021	0.001ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	804	0.00865	n/a	11/15/2021	0.001ND	No	9	66.67	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	805	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	806R	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	801	0.03301	n/a	11/15/2021	0.0075ND	No	9	44.44	No	0.000...	Param Intra 1 of 3
Lithium (mg/l)	802	0.0168	n/a	11/15/2021	0.0075ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	803	0.0246	n/a	11/15/2021	0.0075ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	804	0.03616	n/a	11/15/2021	0.0196	No	9	0	ln(x)	0.000...	Param Intra 1 of 3
Lithium (mg/l)	805	0.0153	n/a	11/15/2021	0.0075ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	806R	0.0301	n/a	11/15/2021	0.0075ND	No	9	0	n/a	0.004675	NP Intra (normality) ...
Mercury (mg/L)	801	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	802	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	803	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	804	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	805	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	806R	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	801	0.005	n/a	11/15/2021	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	802	0.005	n/a	11/15/2021	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	803	0.005	n/a	11/15/2021	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	804	0.005	n/a	11/15/2021	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	805	0.005	n/a	11/15/2021	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	806R	1.395	n/a	11/15/2021	1.64	Yes	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	801	1.824	n/a	11/15/2021	0.916	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	802	4.37	n/a	11/15/2021	0.786	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	803	1.818	n/a	11/15/2021	0.707	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	804	3.927	n/a	11/15/2021	0.949	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	805	2.129	n/a	11/15/2021	1.42	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	806R	2.45	n/a	11/15/2021	1.78	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Selenium (mg/L)	801	0.00224	n/a	11/15/2021	0.001ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	802	0.00266	n/a	11/15/2021	0.00511	Yes	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	803	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	804	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	805	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	806R	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	801	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	802	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	803	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	804	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	805	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	806R	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3

Sibley Generating Station
Determination of Statistically Significant Increase - Fly Ash Impoundment
Appendix IV Constituents for Assessment Monitoring
March 28, 2022

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:
[Dropdown]
- 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

Automatically Remove Outliers (Parametric test only)

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 Label Constituents
- Combine Dates Label Axes
- Use Default Constituent Names Note Cation-Anion Balance (Piper only)
- Use Constituent Definition File

Appendix E.3

Closure Monitoring Statistical Analyses for Statistically Significant Levels

MEMORANDUM

March 28, 2022

**To: Sibley Generating Station
33200 E Johnson Road
Sibley, Missouri 64088
Eversource Energy Missouri West, Inc.**



From: SCS Engineers

**RE: Determination of Statistically Significant Level - Fly Ash Impoundment
Groundwater Protection Standards (GWPS) 40 CFR 257.95(h)
November 2021 Closure Confirmation Monitoring 40 CFR 257.102(c)
Completion Date February 14, 2022**

Statistical analysis of Appendix IV 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. Appendix IV groundwater samples for closure confirmation monitoring were collected on November 15, 2021 following removal of coal combustion residuals (CCR) from the Fly Ash Impoundment. Review and validation of the results from the November 2021 closure confirmation sampling event was completed on January 7, 2022, which constitutes completion and finalization of the closure confirmation monitoring laboratory analyses. In accordance with 40 CFR 257.102(c) groundwater closure monitoring concentrations cannot exceed the groundwater protection standard (GWPS).

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 1 in Attachment 1 along with the Appendix IV constituent background samples collected over eight sampling events between December 2015 and October 2017.

The completed statistical evaluation identified one Appendix IV constituent above its GWPS established for MW-806R.

Monitoring Well Constituent	GWPS	Observation November 15, 2021	1st Verification January 31, 2022
MW-806R			
Molybdenum	1.395	1.64	1.63

Sibley Generating Station
Determination of Statistically Significant Level
Groundwater Protection Standards
Fly Ash Impoundment
March 28, 2022
Page 2 of 2

Determination: A statistical evaluation was completed for all Appendix IV assessment monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified one SSL for molybdenum above its GWPS in monitoring well MW-806R.

Attached to this memorandum are the following backup information:

Attachment 1: Appendix IV Background Data and Groundwater Protection Standards

Attachment 2: Sanitas™ Output:

Statistical evaluation output from Sanitas™ for the prediction limit analysis. This includes prediction limit plots, prediction limit background data, sample results, extra sample results collected prior to closure confirmation sampling, and a Prediction Limit summary table. Output documentation includes the analytical data used for the statistical analyses.

Attachment 3: 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.

Sibley Generating Station
Determination of Statistically Significant Level
Groundwater Protection Standards
Fly Ash Impoundment
March 28, 2022

ATTACHMENT 1

Table 1: Appendix IV Background Data and Groundwater Protection Standards

Table 1
Fly Ash Impoundment
Appendix IV Background Data and Groundwater Protection Standards
Every 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	0.05	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	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-801	5/18/2020	**<0.00400	**<0.00200	**0.112	**<0.00200	**<0.00100	**<0.0100	**<0.0100	**0.162	**<0.00500	**<0.0150	**<0.000200	**<0.00500	**<0.00200	**<0.00200	0.270
MW-801	7/6/2021	**<0.00400	**<0.00200	**0.136	**<0.00200	**<0.00100	**<0.0100	**<0.00200	**0.192	**<0.00200	**0.0166	**<0.000200	**<0.00500	**<0.00200	**<0.00200	0.374 (J)
MW-801	11/15/2021	<0.004	<0.002	0.154	<0.002	<0.001	<0.01	<0.002	0.150	<0.002	<0.015	<0.002	<0.005	<0.002	<0.002	0.916
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-802	5/18/2020	**<0.00400	**0.00218	**0.163	**<0.00200	**<0.00100	**<0.0100	**<0.0100	**0.176	**<0.00500	**<0.0150	**<0.000200	**<0.00500	**<0.00200	**<0.00200	1.02
MW-802	7/6/2021	**<0.00400	**0.00286	**0.165	**<0.00200	**<0.00100	**<0.0100	**<0.00200	**0.203	**0.00203	**<0.0150	**<0.000200	**<0.00500	**<0.00200	**<0.00200	0.765 (J)
MW-802	11/15/2021	<0.004	0.00267	0.160	<0.002	<0.001	<0.01	<0.002	<0.150	<0.002	<0.015	<0.002	<0.005	0.00511	<0.002	0.756 (J)
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-803	5/18/2020	**<0.00400	**0.00246	**0.119	**<0.00200	**<0.00100	**<0.0100	**<0.0100	**0.265	**<0.00500	**<0.0150	**<0.000200	**<0.00500	**<0.00200	**<0.00200	2.26
MW-803	7/6/2021	**<0.00400	**<0.00200	**0.114	**<0.00200	**<0.00100	**<0.0100	**<0.00200	**0.282	**0.0045	**0.0150	**<0.000200	**<0.00500	**<0.00200	**<0.00200	0.278 (U)
MW-803	11/15/2021	<0.004	0.00265	0.122	<0.002	<0.001	<0.01	<0.002	0.276	<0.002	<0.015	<0.002	<0.005	<0.002	<0.002	0.707 (J)
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	

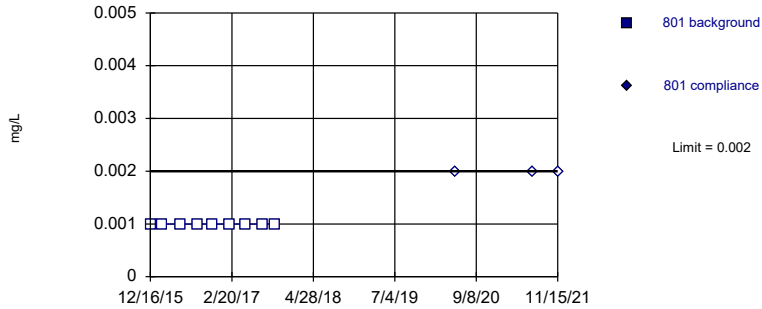
Sibley Generating Station
Determination of Statistically Significant Level
Groundwater Protection Standards
Fly Ash Impoundment
March 28, 2022

ATTACHMENT 2

Sanitas™ Output

Within Limit

Prediction Limit Intrawell Non-parametric

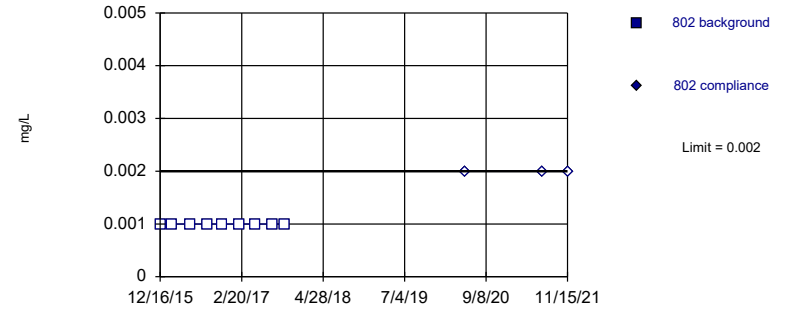


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

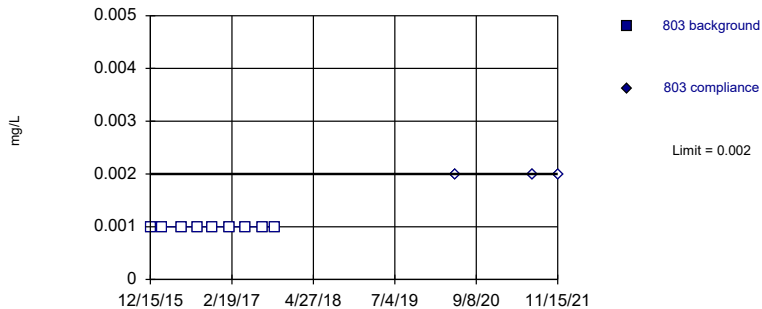


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

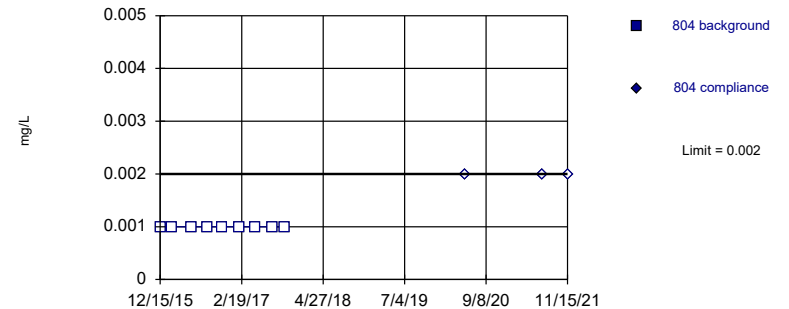


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

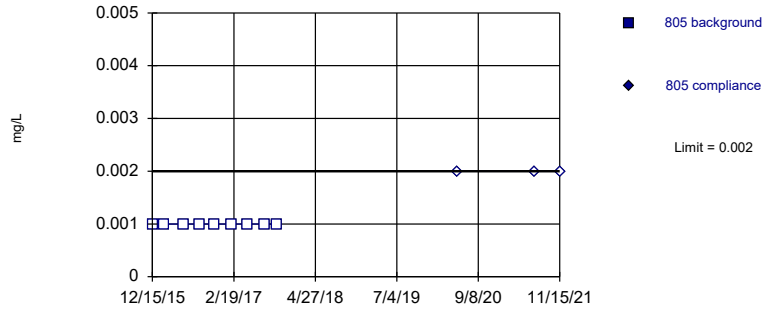
Constituent: Antimony Analysis Run 2/14/2022 5:03 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

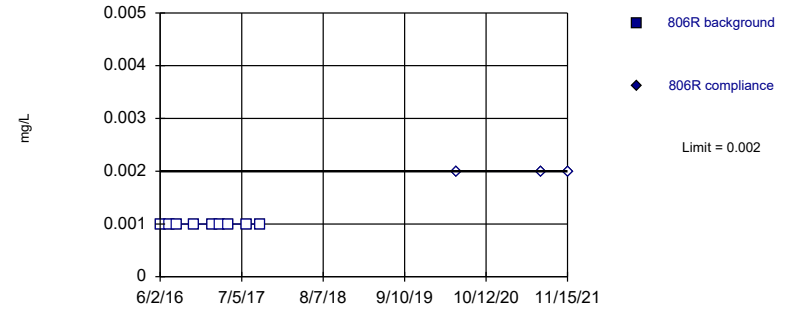


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

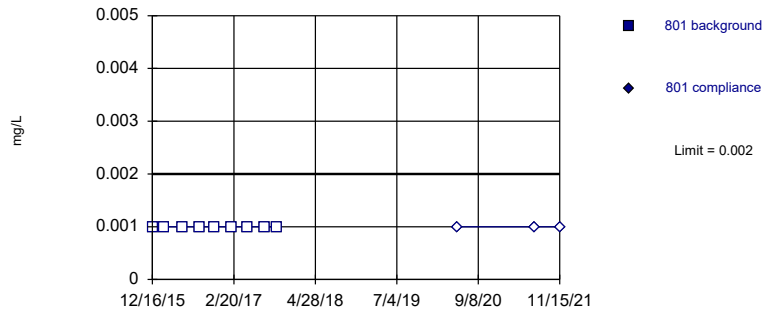


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

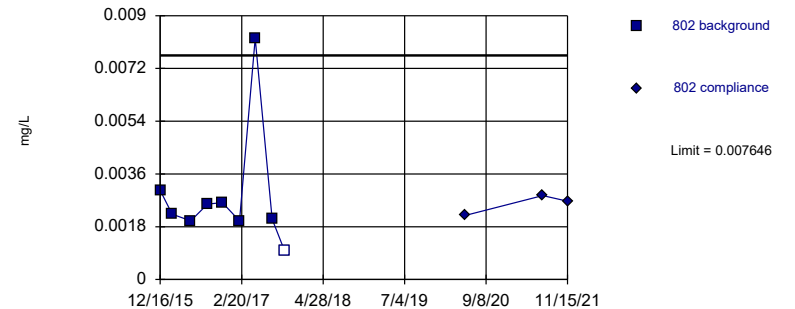


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Arsenic Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

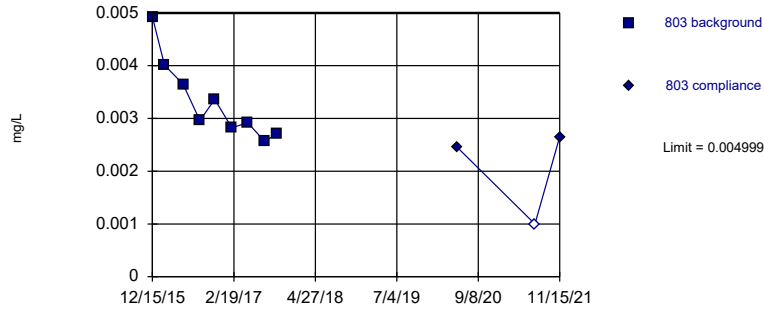
Prediction Limit

Constituent: Antimony, Arsenic Analysis Run 2/14/2022 5:03 PM View: Ash Pond IV
Sibley 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

Within Limit

Prediction Limit
Intrawell Parametric

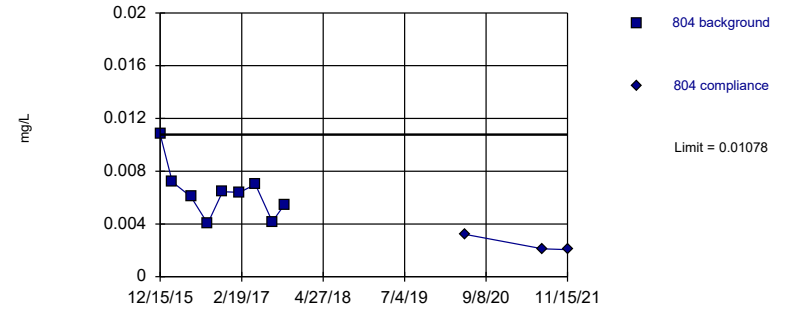


Background Data Summary: Mean=0.003324, Std. Dev.=0.0007636, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8749, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

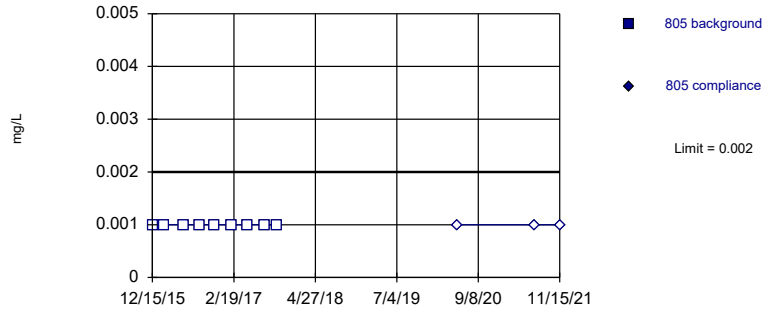


Background Data Summary: Mean=0.006396, Std. Dev.=0.001997, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8818, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

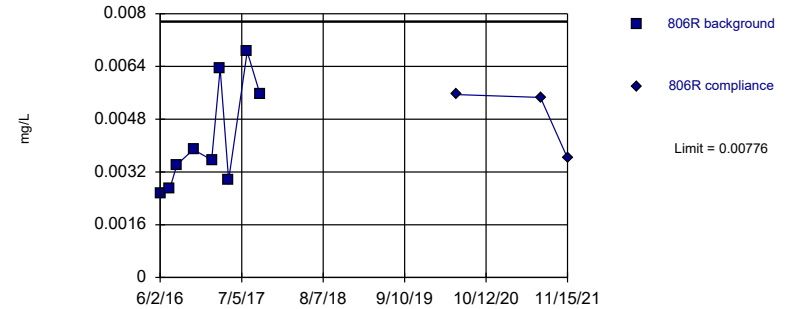


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Arsenic Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

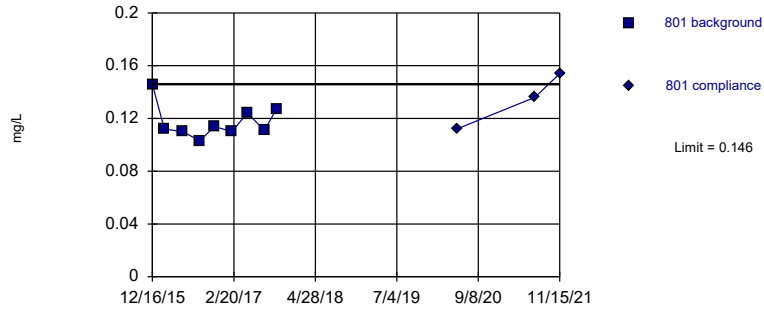
Constituent: Arsenic Analysis Run 2/14/2022 5:03 PM View: Ash Pond IV

Sibley 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

Exceeds Limit

Prediction Limit Intrawell Parametric



Prediction Limit

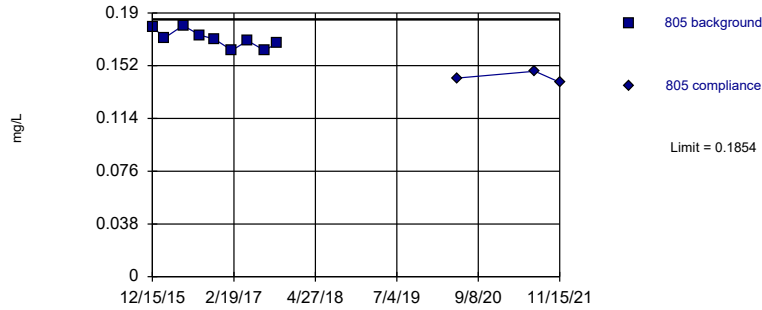
Constituent: Barium Analysis Run 2/14/2022 5:03 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Parametric



Prediction Limit

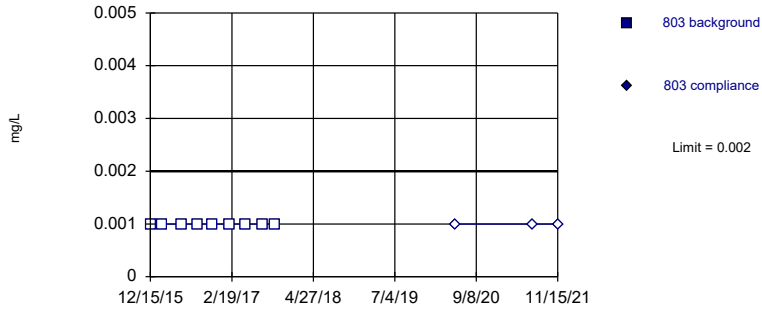
Constituent: Barium, Beryllium Analysis Run 2/14/2022 5:03 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

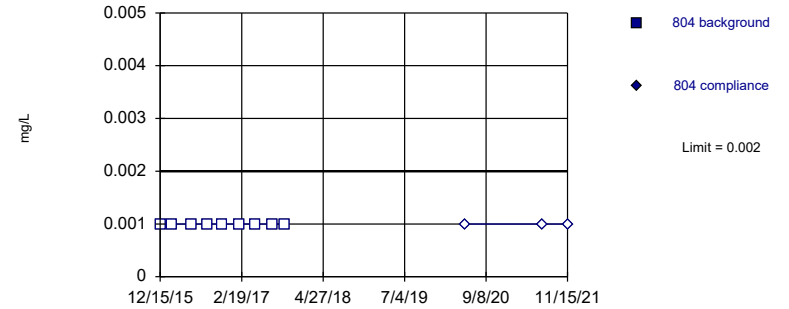


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

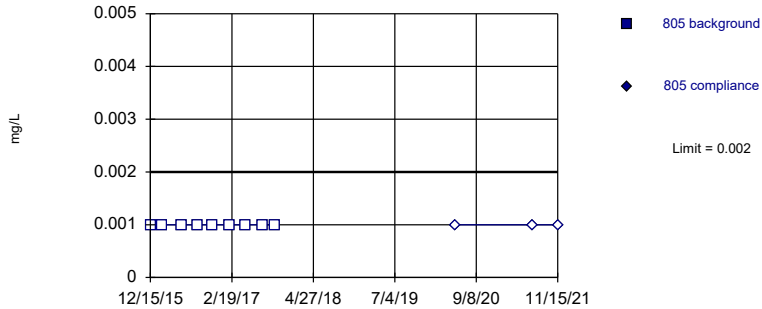


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

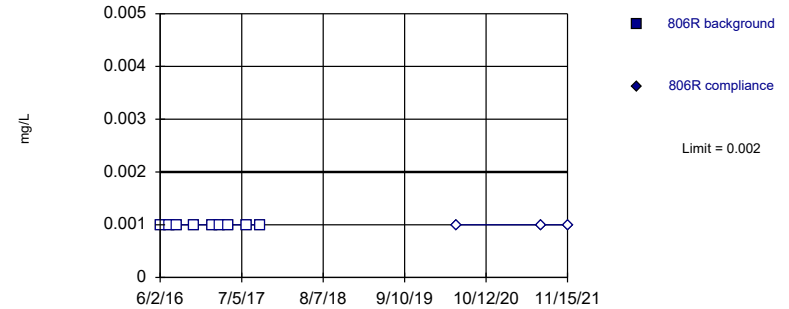


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 2/14/2022 4:57 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:57 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

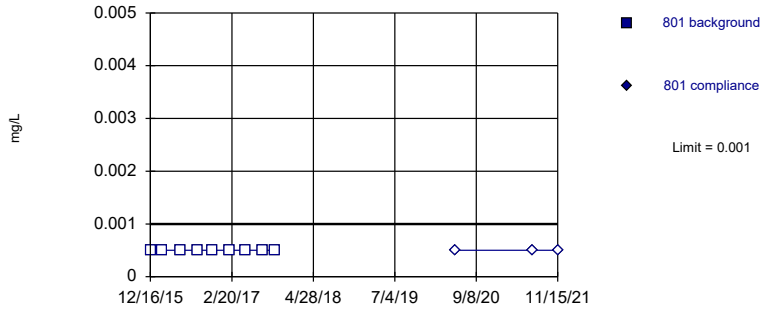
Constituent: Beryllium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

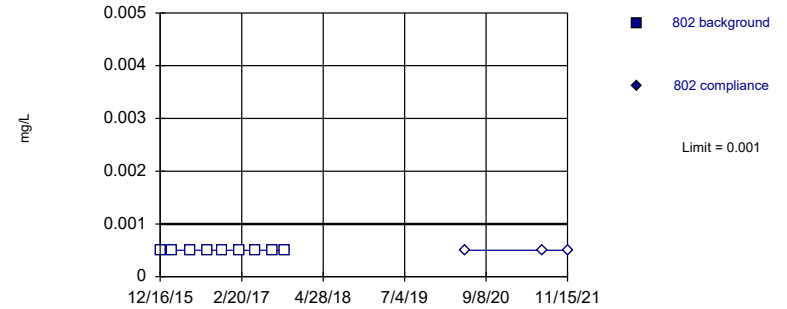


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

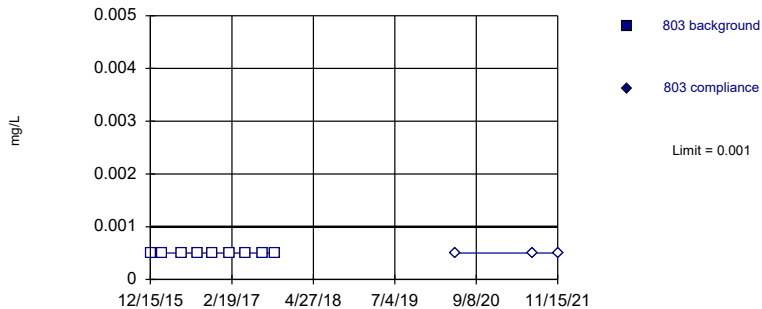


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

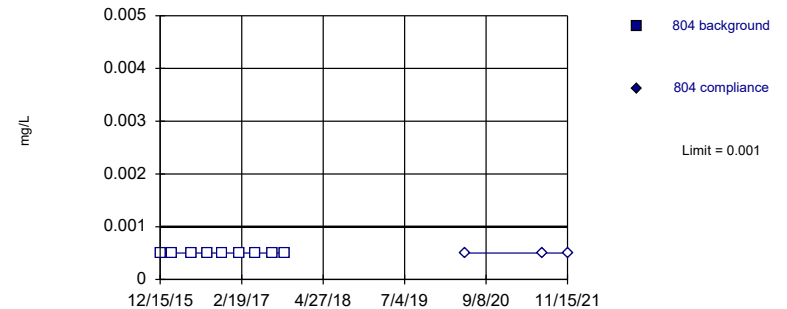


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

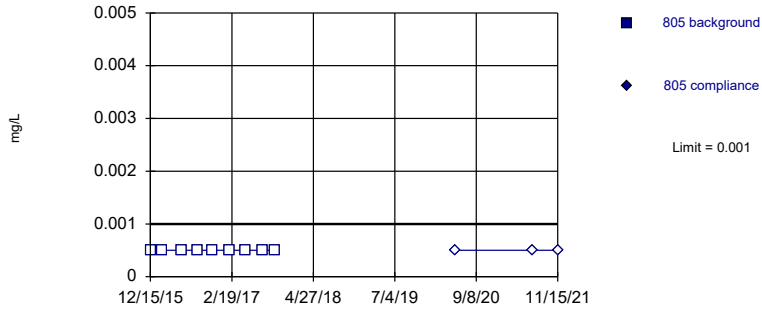
Constituent: Cadmium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

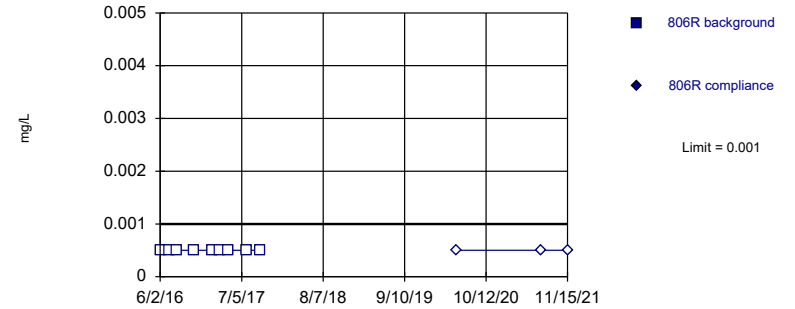


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

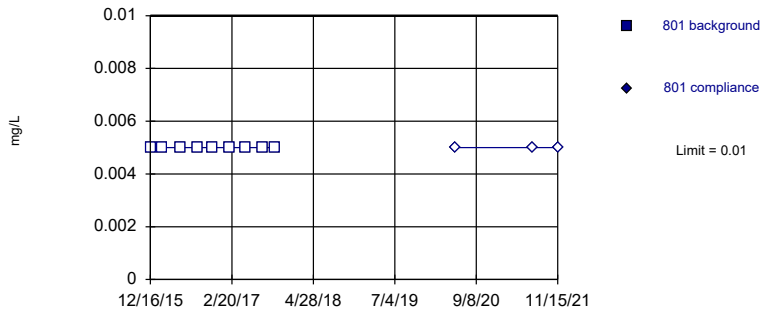


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

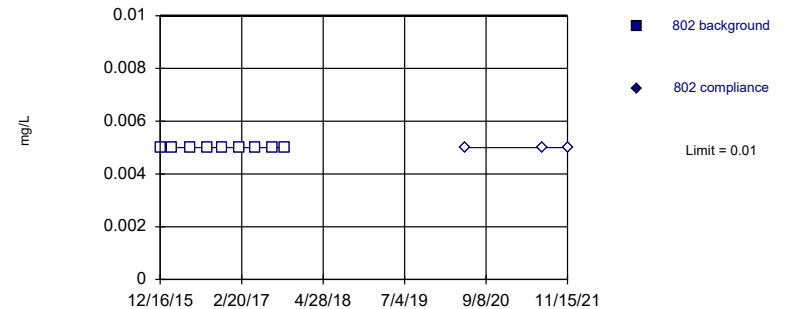


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

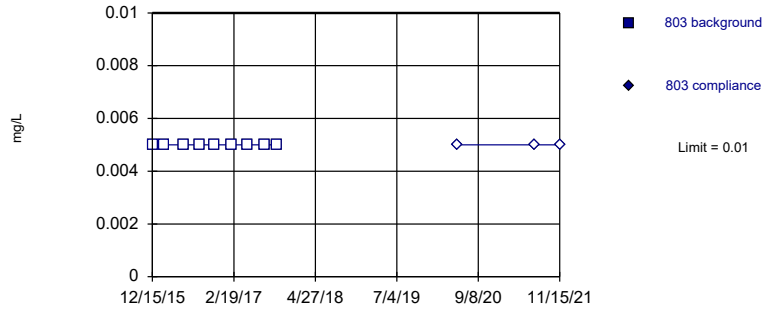
Constituent: Cadmium, Chromium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

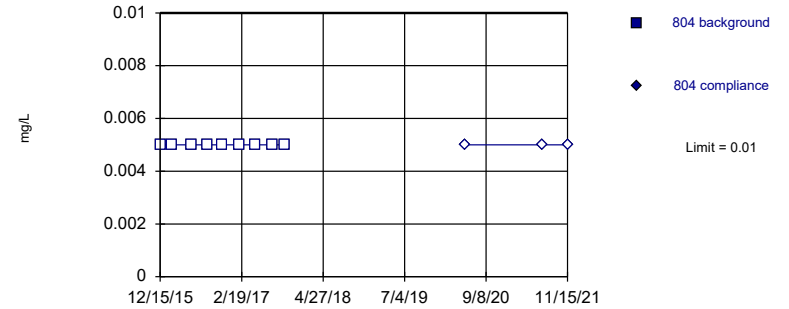


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

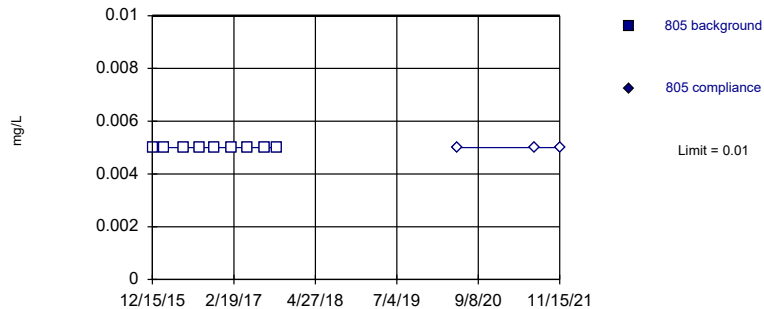


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

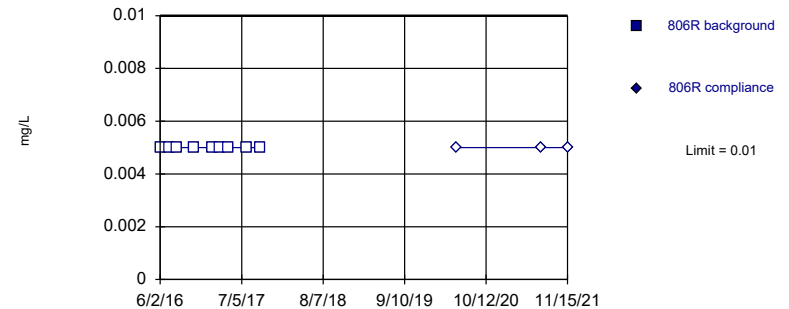


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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: Chromium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Chromium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Prediction Limit

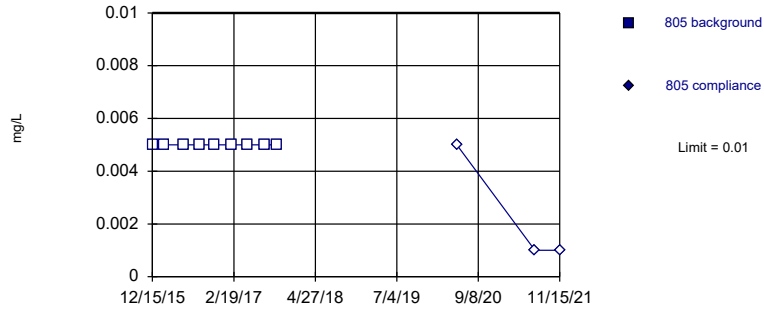
Constituent: Cobalt Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

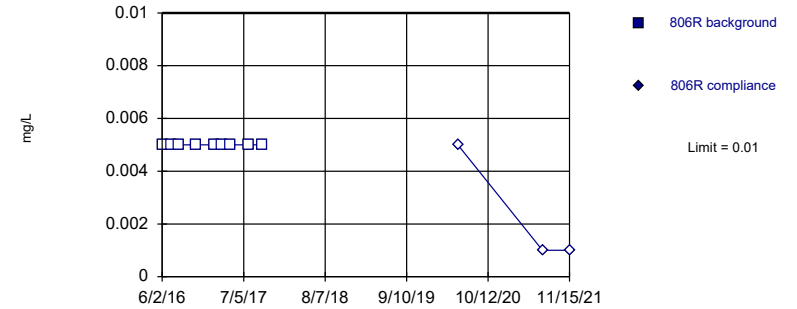


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

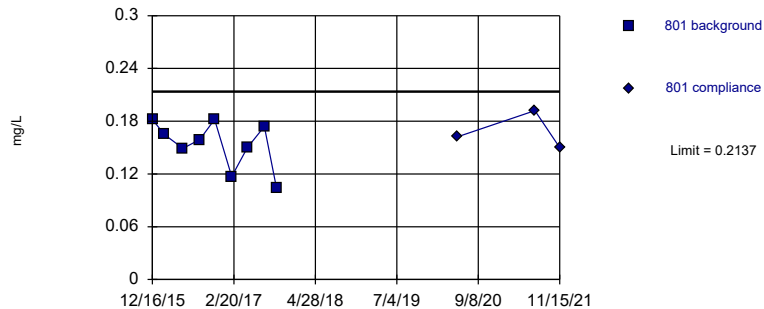


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

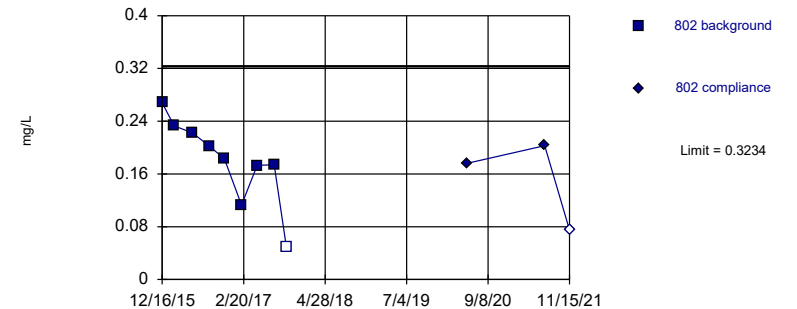


Background Data Summary: Mean=0.1536, Std. Dev.=0.02744, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.894, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

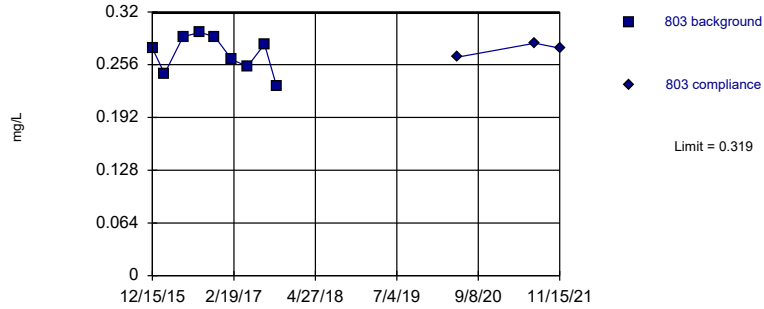
Constituent: Cobalt, Fluoride Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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	
5/18/2020		<0.01		<0.01		0.162		0.176
7/6/2021		<0.002		<0.002		0.192		0.203
11/15/2021		<0.002		<0.002		0.15		<0.15

Within Limit

Prediction Limit Intrawell Parametric

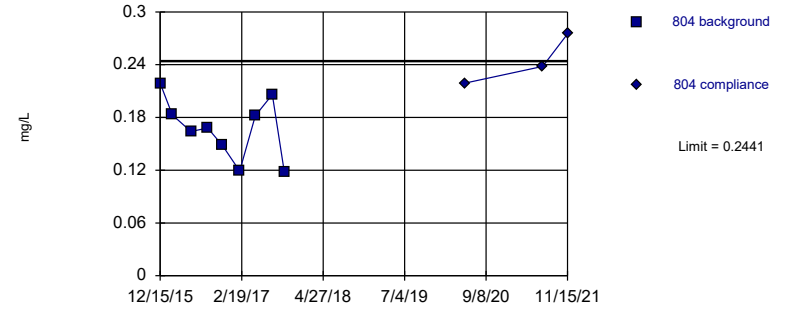


Background Data Summary: Mean=0.2692, Std. Dev.=0.0227, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9261, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Exceeds Limit

Prediction Limit Intrawell Parametric

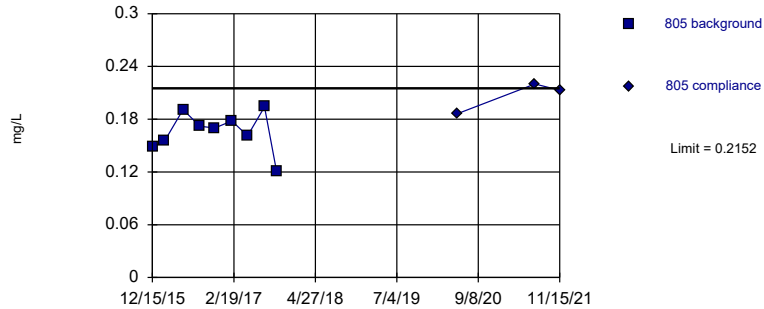


Background Data Summary: Mean=0.1674, Std. Dev.=0.03496, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9484, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric

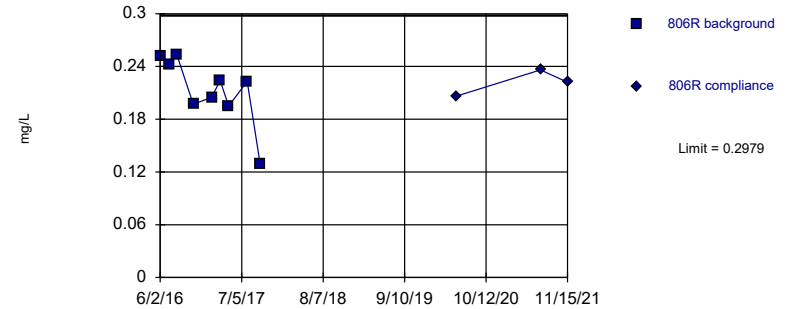


Background Data Summary: Mean=0.1656, Std. Dev.=0.02263, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9537, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

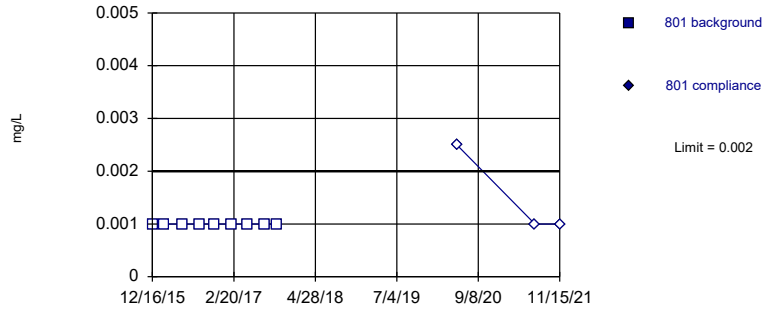
Constituent: Fluoride Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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	
5/18/2020		0.265		0.219		0.186		0.206
7/6/2021		0.282		0.238		0.22		0.236
11/15/2021		0.276		0.275		0.213		0.222

Within Limit

Prediction Limit
Intrawell Non-parametric

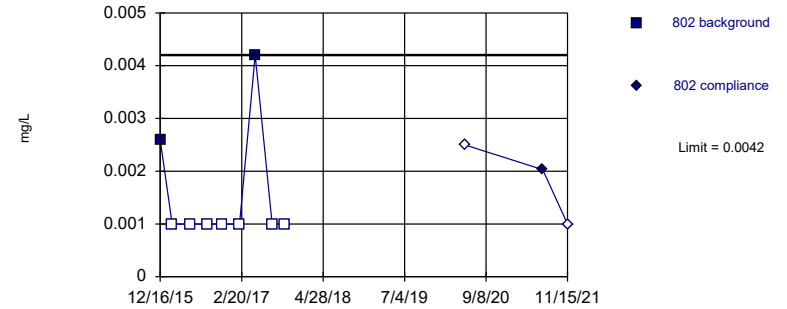


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

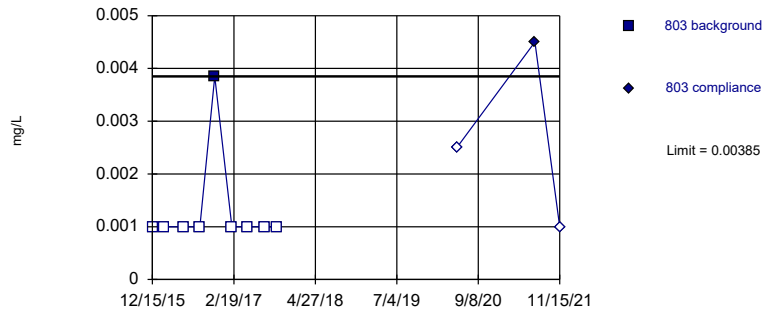


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

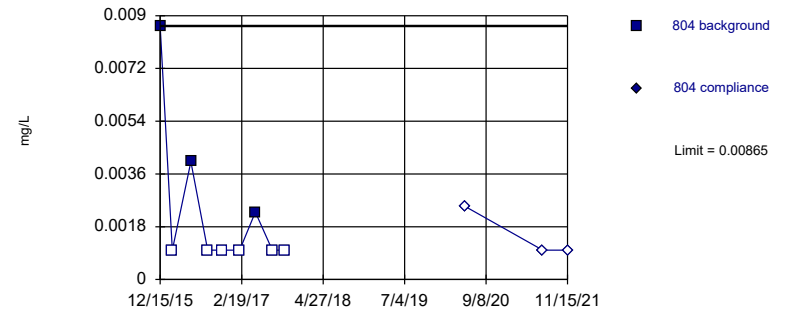


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

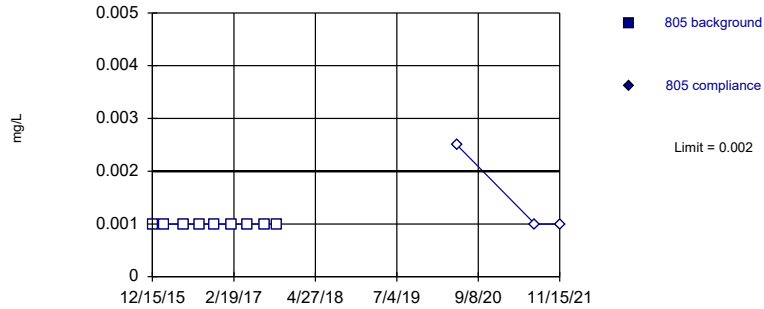
Constituent: Lead Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

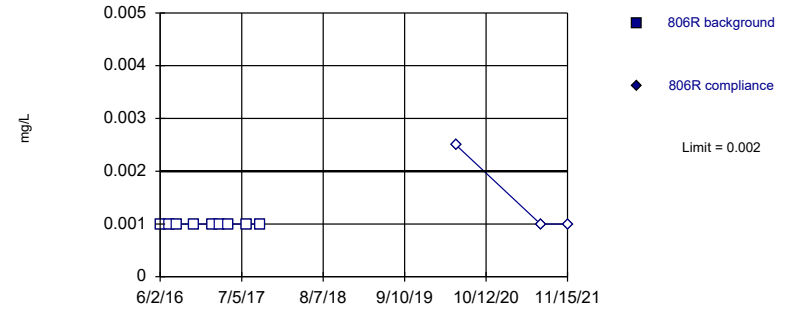


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

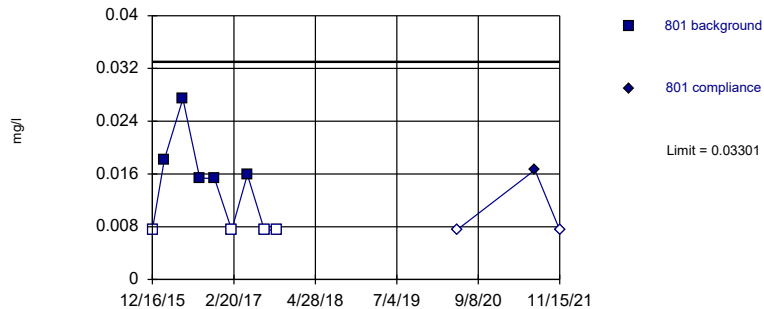


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

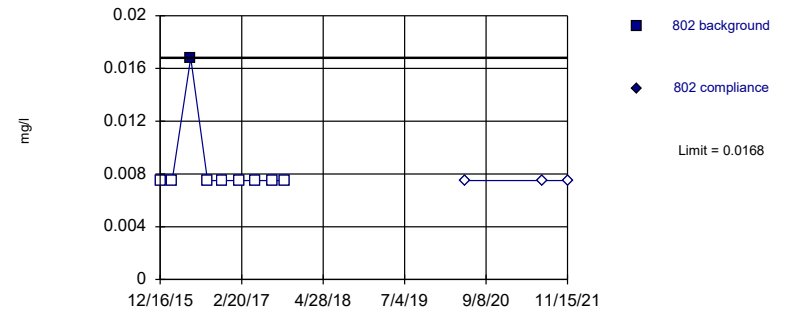


Background Data Summary (after Aitchison's Adjustment): Mean=0.01024, Std. Dev.=0.01038, n=9, 44.44% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8326, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Lithium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

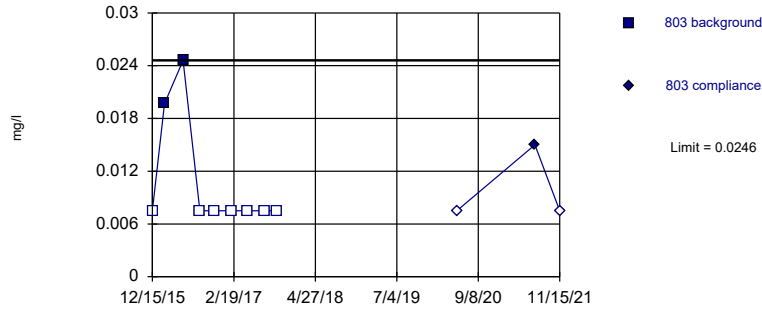
Prediction Limit

Constituent: Lead, Lithium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV
Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

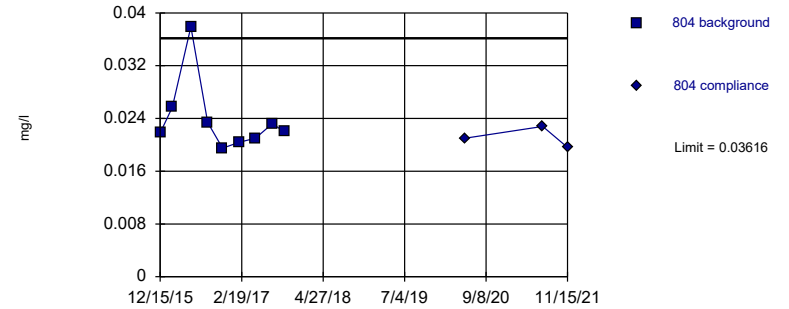


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

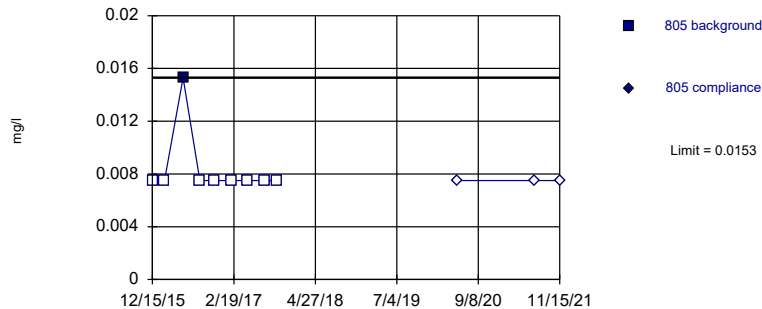


Background Data Summary (based on natural log transformation): Mean=-3.754, Std. Dev.=0.1981, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7756, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Lithium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

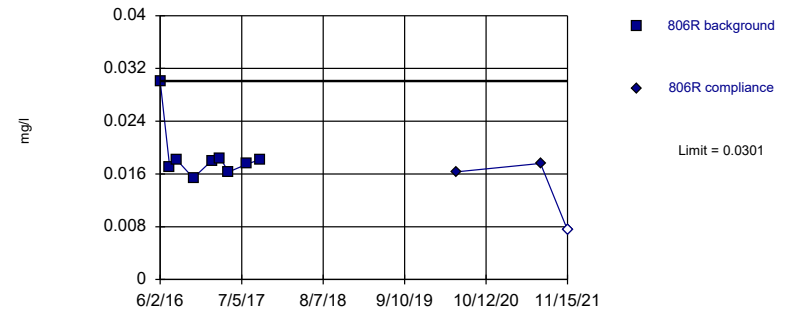


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

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 2/14/2022 4:58 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

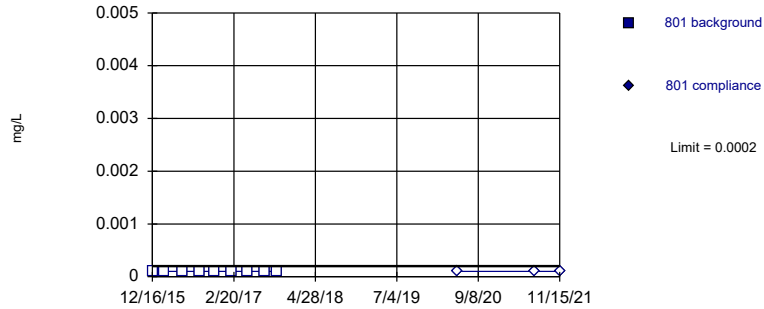
Constituent: Lithium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

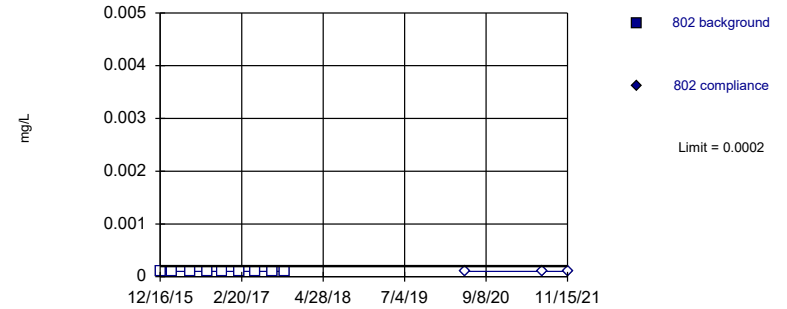


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

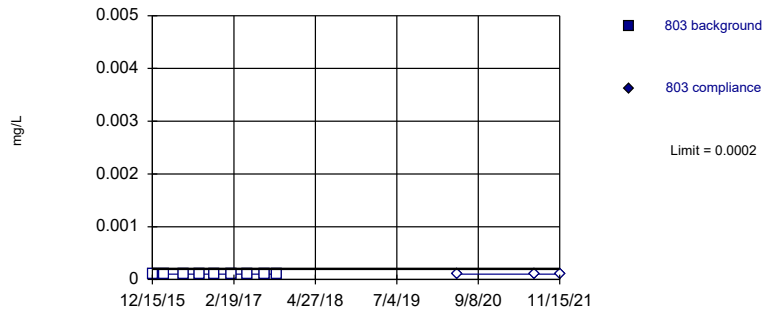


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

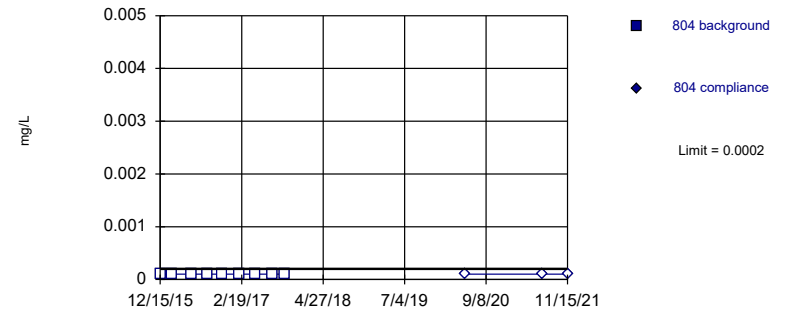


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

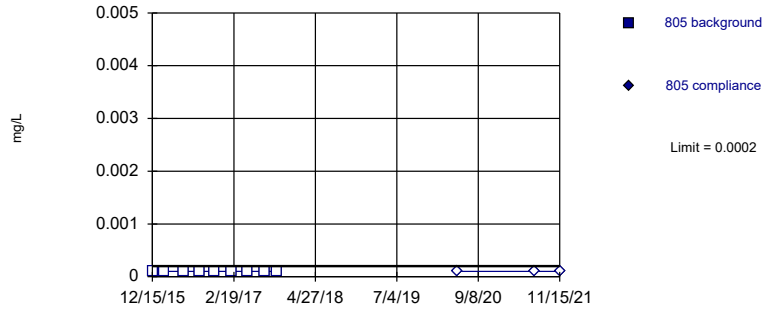
Constituent: Mercury Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

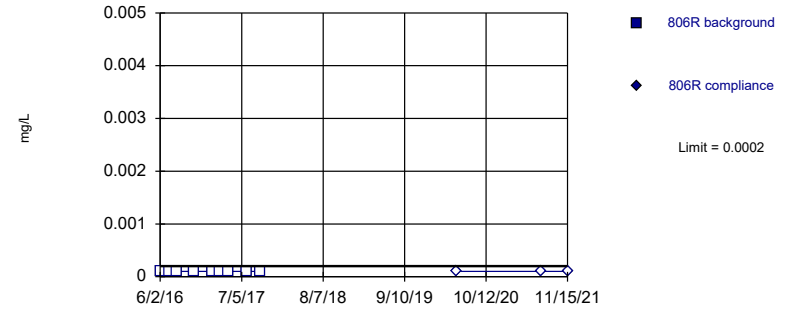


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

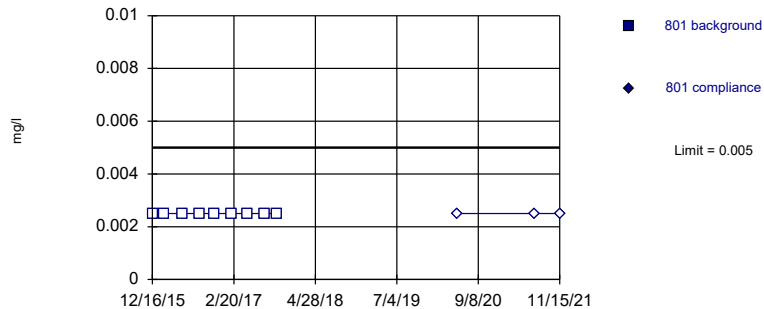


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

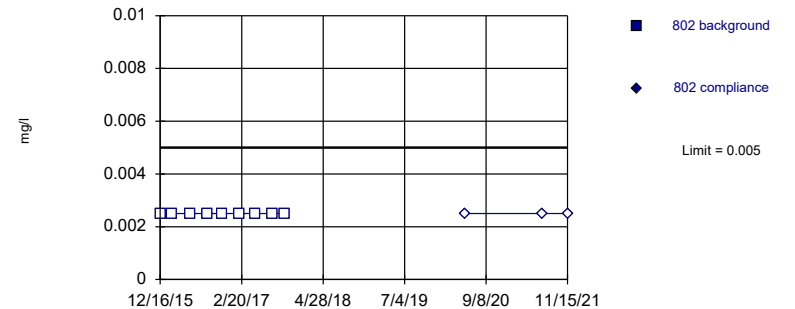


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

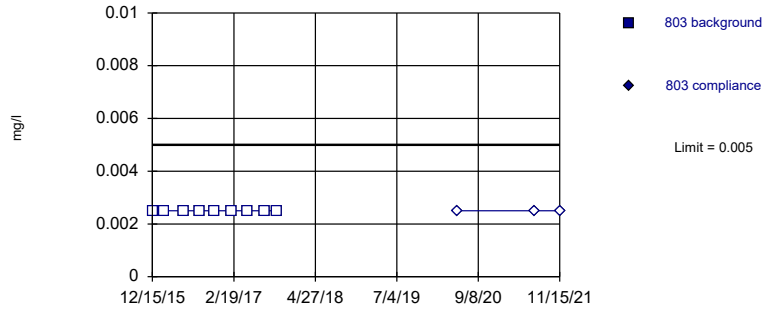
Prediction Limit

Constituent: Mercury, Molybdenum Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV
Sibley 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

Within Limit

Prediction Limit
Intrawell Non-parametric

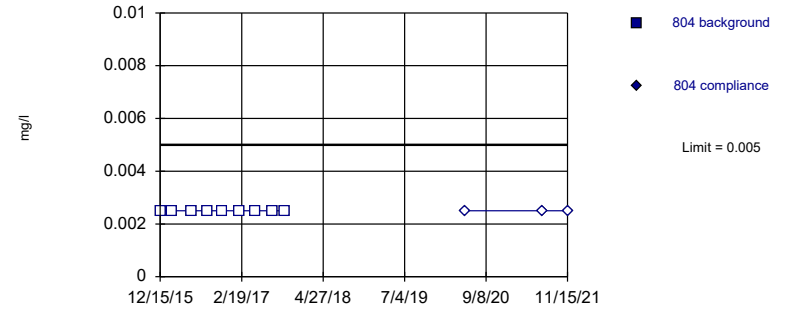


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

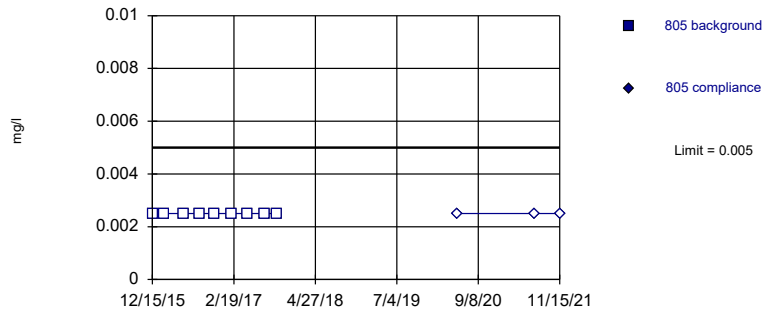


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

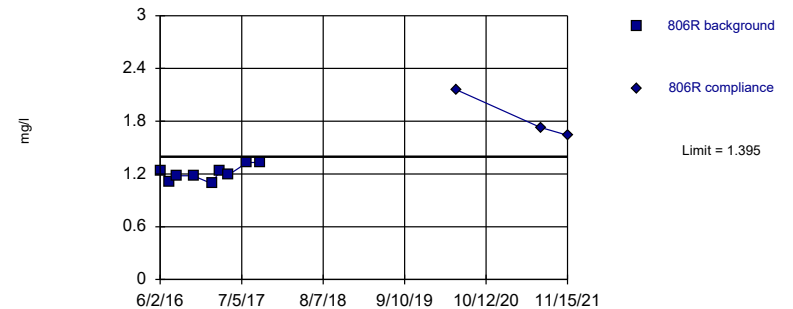


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

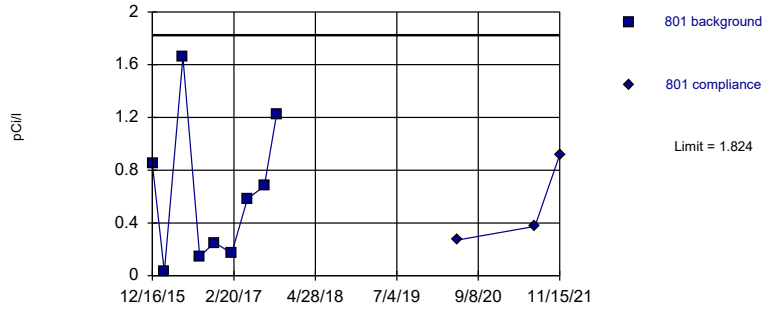
Constituent: Molybdenum Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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	
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

Within Limit

Prediction Limit Intrawell Parametric

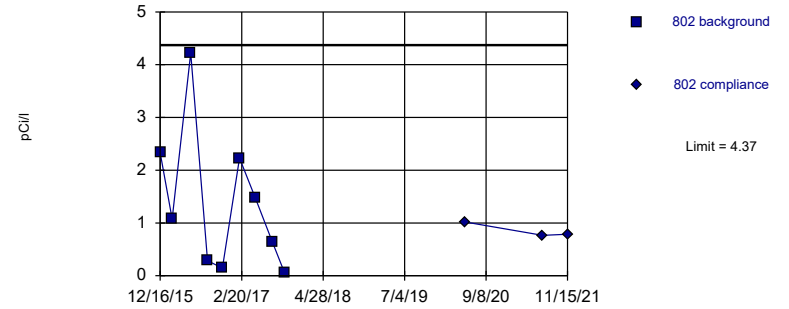


Background Data Summary: Mean=0.6204, Std. Dev.=0.5487, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.913, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric

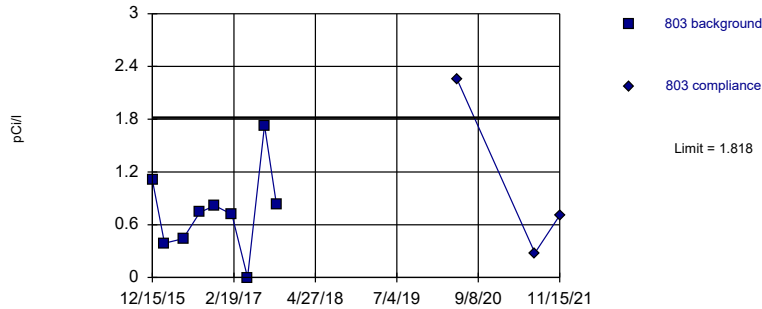


Background Data Summary: Mean=1.388, Std. Dev.=1.36, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8858, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Parametric

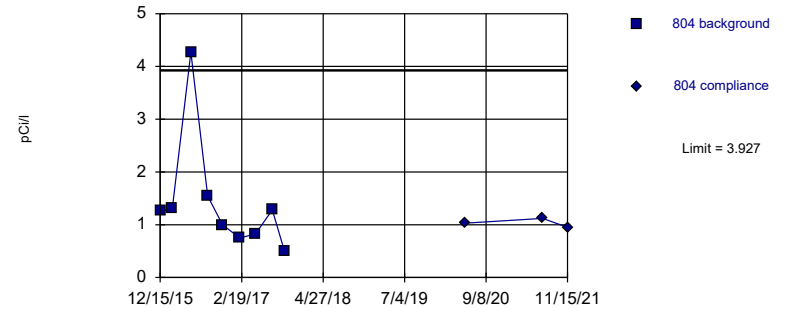


Background Data Summary: Mean=0.7523, Std. Dev.=0.486, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9475, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

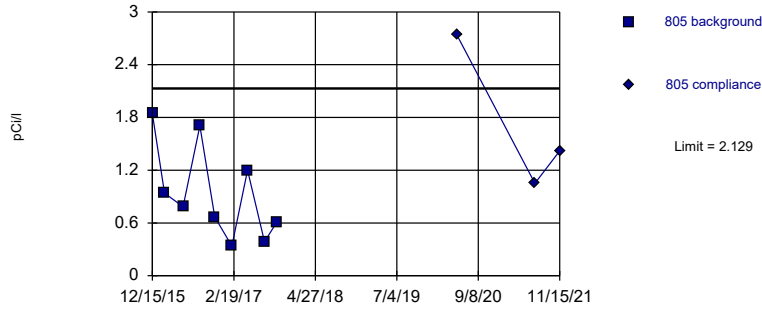
Constituent: Radium Combined Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit
Intrawell Parametric

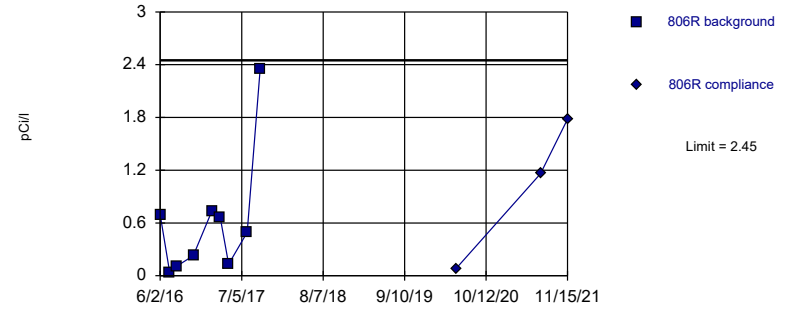


Background Data Summary: Mean=0.9412, Std. Dev.=0.5416, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9047, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

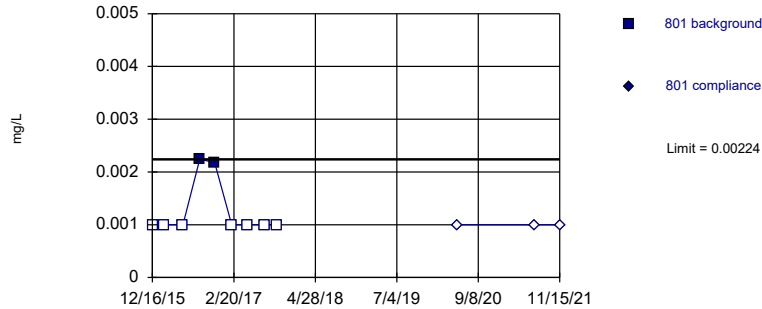


Background Data Summary (based on square root transformation): Mean=0.6773, Std. Dev.=0.4049, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9055, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

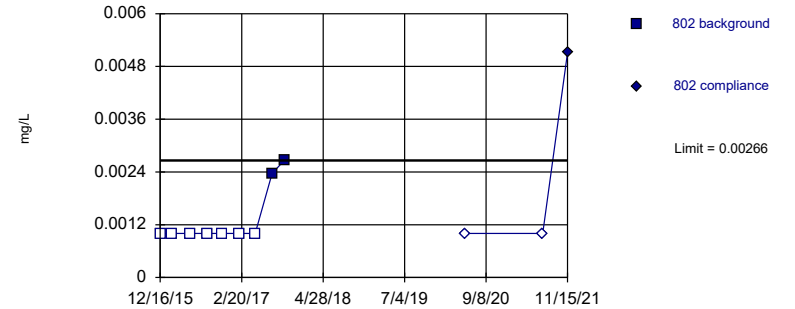


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

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 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Radium Combined, Selenium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV
 Sibley 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

Prediction Limit

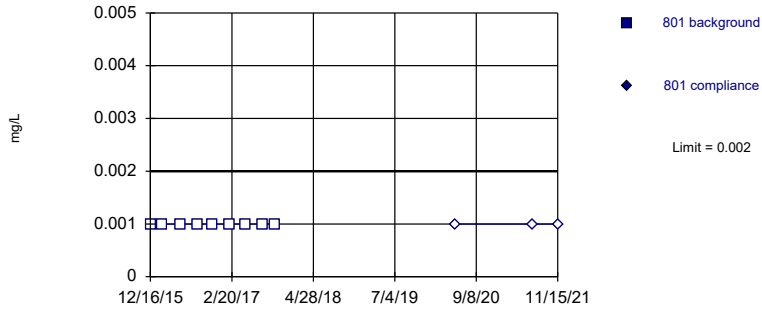
Constituent: Selenium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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

Within Limit

Prediction Limit Intrawell Non-parametric

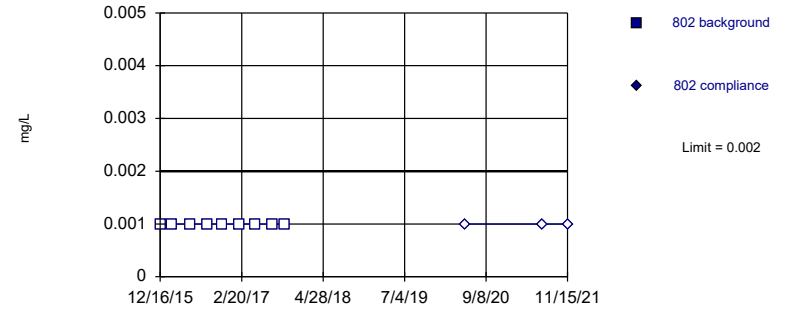


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

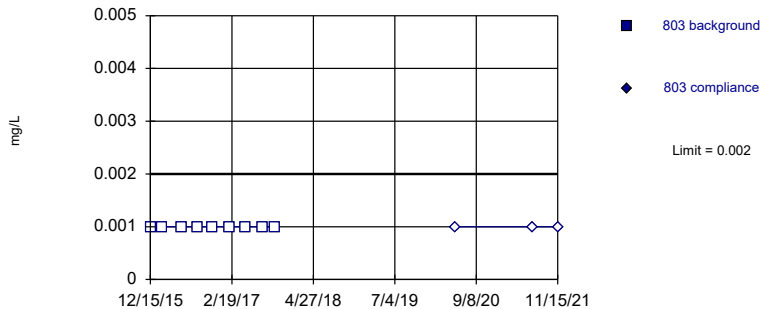


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

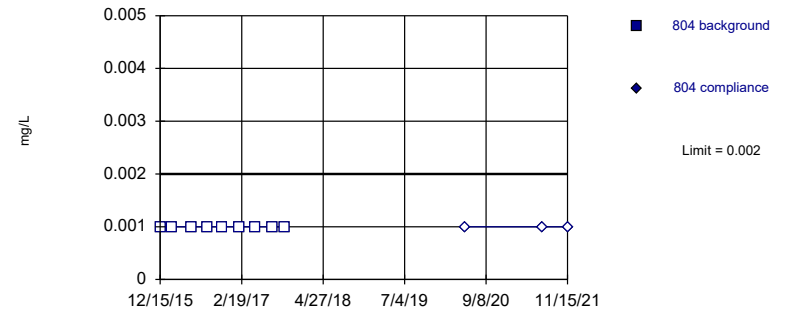


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

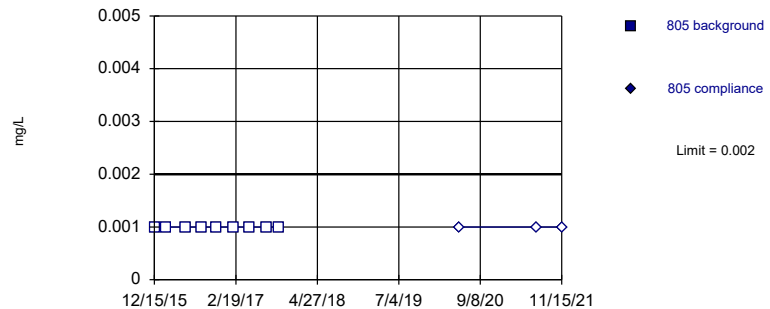
Constituent: Thallium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV

Sibley 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		<0.002		<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

Within Limit

Prediction Limit Intrawell Non-parametric

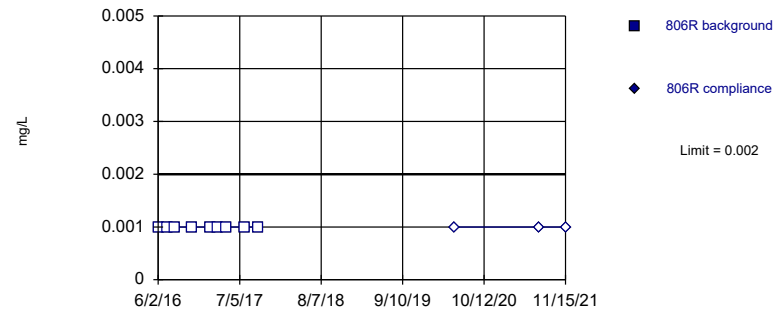


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley 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: Thallium Analysis Run 2/14/2022 4:59 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Thallium Analysis Run 2/14/2022 5:04 PM View: Ash Pond IV
Sibley Client: SCS Engineers Data: Sibley

	805	805	806R	806R
12/15/2015	<0.002			
2/17/2016	<0.002			
5/26/2016	<0.002			
6/2/2016			<0.002	
7/19/2016			<0.002	
8/23/2016	<0.002		<0.002	
11/10/2016	<0.002			
11/11/2016			<0.002	
2/9/2017	<0.002		<0.002	
3/22/2017			<0.002	
5/3/2017	<0.002		<0.002	
8/1/2017	<0.002		<0.002	
10/4/2017	<0.002		<0.002	
5/18/2020		<0.002		<0.002
7/6/2021		<0.002		<0.002
11/15/2021		<0.002		<0.002

Prediction Limit

Sibley Client: SCS Engineers Data: Sibley Printed 2/14/2022, 5:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	801	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	802	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	803	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	804	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	805	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	806R	0.002	n/a	11/15/2021	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	801	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	802	0.007646	n/a	11/15/2021	0.00267	No	9	11.11	x^(1/3)	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	803	0.004999	n/a	11/15/2021	0.00265	No	9	0	No	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	804	0.01078	n/a	11/15/2021	0.00205	No	9	0	No	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	805	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	806R	0.00776	n/a	11/15/2021	0.00362	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	801	0.146	n/a	11/15/2021	0.154	Yes	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	802	0.3056	n/a	11/15/2021	0.16	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	803	0.1509	n/a	11/15/2021	0.122	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	804	0.5223	n/a	11/15/2021	0.45	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	805	0.1854	n/a	11/15/2021	0.14	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	806R	0.1276	n/a	11/15/2021	0.0723	No	9	0	No	0.000...	Param Intra 1 of 3
Beryllium (mg/L)	801	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	802	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	803	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	804	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	805	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	806R	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	801	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	802	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	803	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	804	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	805	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	806R	0.001	n/a	11/15/2021	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	801	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	802	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	803	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	804	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	805	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	806R	0.01	n/a	11/15/2021	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	801	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	802	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	803	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	804	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	805	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	806R	0.01	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Fluoride (mg/L)	801	0.2137	n/a	11/15/2021	0.15	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	802	0.3234	n/a	11/15/2021	0.075ND	No	9	11.11	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	803	0.319	n/a	11/15/2021	0.276	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	804	0.2441	n/a	11/15/2021	0.275	Yes	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	805	0.2152	n/a	11/15/2021	0.213	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	806R	0.2979	n/a	11/15/2021	0.222	No	9	0	No	0.000...	Param Intra 1 of 3
Lead (mg/L)	801	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	802	0.0042	n/a	11/15/2021	0.001ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3

Prediction Limit

Sibley Client: SCS Engineers Data: Sibley Printed 2/14/2022, 5:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Lead (mg/L)	803	0.00385	n/a	11/15/2021	0.001ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	804	0.00865	n/a	11/15/2021	0.001ND	No	9	66.67	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	805	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	806R	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	801	0.03301	n/a	11/15/2021	0.0075ND	No	9	44.44	No	0.000...	Param Intra 1 of 3
Lithium (mg/l)	802	0.0168	n/a	11/15/2021	0.0075ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	803	0.0246	n/a	11/15/2021	0.0075ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	804	0.03616	n/a	11/15/2021	0.0196	No	9	0	ln(x)	0.000...	Param Intra 1 of 3
Lithium (mg/l)	805	0.0153	n/a	11/15/2021	0.0075ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	806R	0.0301	n/a	11/15/2021	0.0075ND	No	9	0	n/a	0.004675	NP Intra (normality) ...
Mercury (mg/L)	801	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	802	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	803	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	804	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	805	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	806R	0.0002	n/a	11/15/2021	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	801	0.005	n/a	11/15/2021	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	802	0.005	n/a	11/15/2021	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	803	0.005	n/a	11/15/2021	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	804	0.005	n/a	11/15/2021	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	805	0.005	n/a	11/15/2021	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	806R	1.395	n/a	11/15/2021	1.64	Yes	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	801	1.824	n/a	11/15/2021	0.916	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	802	4.37	n/a	11/15/2021	0.786	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	803	1.818	n/a	11/15/2021	0.707	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	804	3.927	n/a	11/15/2021	0.949	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	805	2.129	n/a	11/15/2021	1.42	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	806R	2.45	n/a	11/15/2021	1.78	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Selenium (mg/L)	801	0.00224	n/a	11/15/2021	0.001ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	802	0.00266	n/a	11/15/2021	0.00511	Yes	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	803	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	804	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	805	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	806R	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	801	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	802	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	803	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	804	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	805	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	806R	0.002	n/a	11/15/2021	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3

Sibley Generating Station
Determination of Statistically Significant Level
Groundwater Protection Standards
Fly Ash Impoundment
March 28, 2022

ATTACHMENT 3

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:
[Dropdown]
- 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

Automatically Remove Outliers (Parametric test only)

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)

Appendix E.4

Spring 2022 Semiannual and Annual Assessment Monitoring Statistical Analyses

MEMORANDUM

September 28, 2022
Revision 1: October 13, 2022



To: Sibley Generating Station
33200 E Johnson Road
Sibley, Missouri 64088
Evergy Missouri West, Inc.

From: SCS Engineers

RE: Determination of Statistically Significant Increases/Levels – Fly Ash Impoundment Spring 2022 Semi-Annual and 2022 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 12, 2022. Review and validation of the results from the May 2022 Assessment Monitoring Event was completed on July 1, 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. Two rounds of verification sampling were conducted for certain constituents on June 15, 2022 and August 18, 2022. Cobalt was detected above its GWPS in MW-802 during the May 12, 2022 detection monitoring sampling event but was not detected above the laboratory reporting limit for the June 15, 2022 first verification sampling event.

The completed statistical evaluation identified seven Appendix IV constituents above their prediction limits and one Appendix IV constituent above its GWPS at a SSL established for specific wells.

Constituent/Monitoring Well	*UPL/**GWPS	Observation May 12, 2022	1st Verification June 15, 2022	2nd Verification August 18, 2022
Arsenic				
MW-801	0.002/0.010	0.0026	NA	NA
Barium				
MW-801	0.146/2	0.161	NA	NA
MW-802	0.3056/2	0.476	NA	NA
Cadmium				
MW-802	0.001/0.005	0.00115	NA	NA

Constituent/Monitoring Well	*UPL/**GWPS	Observation May 12, 2022	1st Verification June 15, 2022	2nd Verification August 18, 2022
Chromium				
MW-802	0.01/0.100	0.0109	NA	NA
Lead				
MW-802	0.0042/0.015	0.0134	NA	NA
Molybdenum				
MW-806R	1.395/1.395	1.50	1.51	1.47
Selenium				
MW-805	0.002/0.050	0.00754	NA	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 arsenic in monitoring well MW-801, barium in monitoring wells MW-801 and MW-802, cadmium in monitoring well MW-802, chromium in monitoring well MW-802, lead in monitoring well MW-802, molybdenum in monitoring well MW-806R, and selenium 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.

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), 2nd verification re-sample results (when applicable), extra sample results for pH because pH is collected as part of the sampling procedure, 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
1	10/13/2022		Corrected "April 16, 2019", "May 2021" and "July 1, 2021" dates in the first paragraph to "October 12, 2017", "May 2022 and July 1, 2022", respectively.

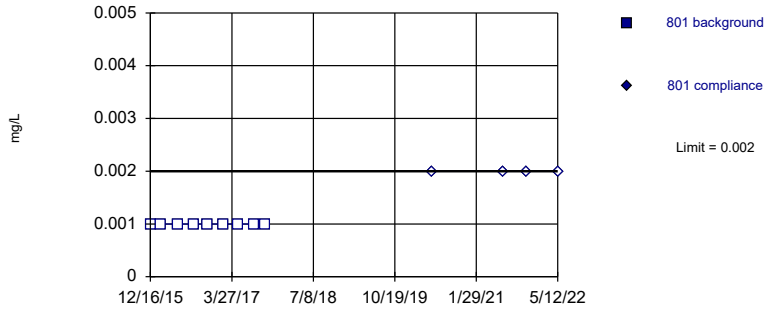
Sibley Generating Station
Determination of Statistically Significant Increases
Fly Ash Impoundment
September 28, 2022
Revision 1: October 13, 2022

ATTACHMENT 1

Sanitas™ Output

Within Limit

Prediction Limit Intrawell Non-parametric

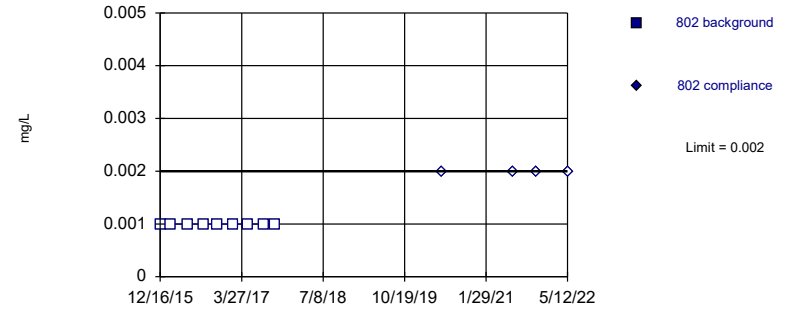


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 9/28/2022 6:27 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

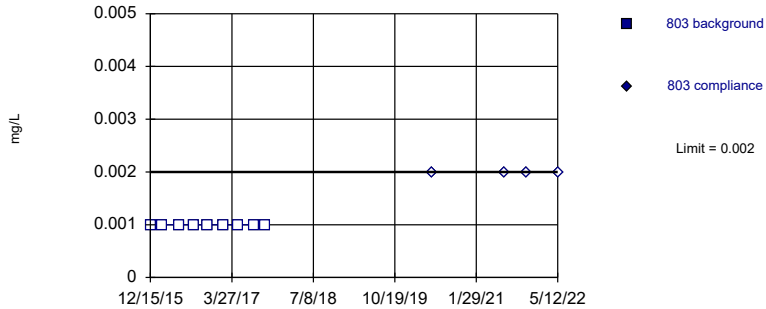


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 9/28/2022 6:27 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

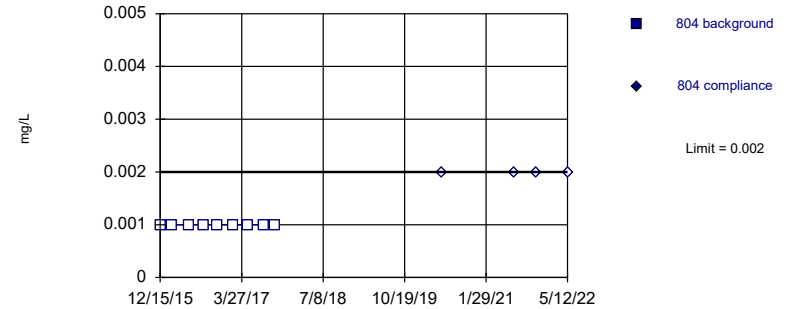


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Antimony Analysis Run 9/28/2022 6:27 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 9/28/2022 6:27 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

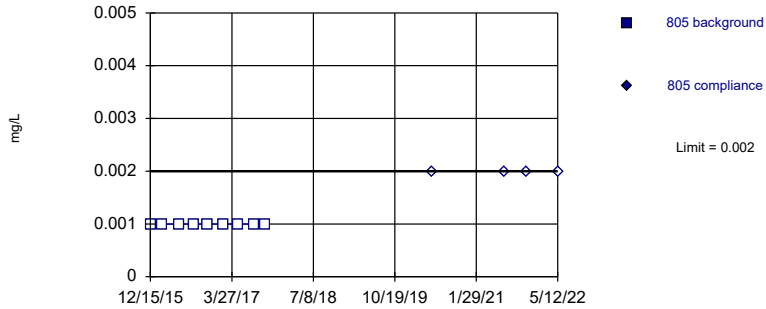
Prediction Limit

Constituent: Antimony Analysis Run 9/28/2022 6:36 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

Within Limit

Prediction Limit
Intrawell Non-parametric



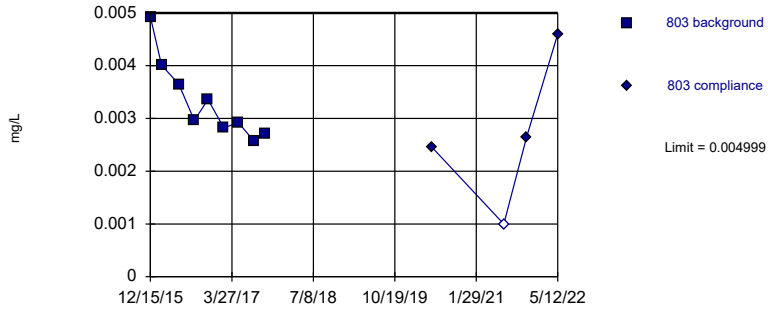
Prediction Limit

Constituent: Antimony, Arsenic Analysis Run 9/28/2022 6:36 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 1st Verification

Within Limit

Prediction Limit
Intrawell Parametric

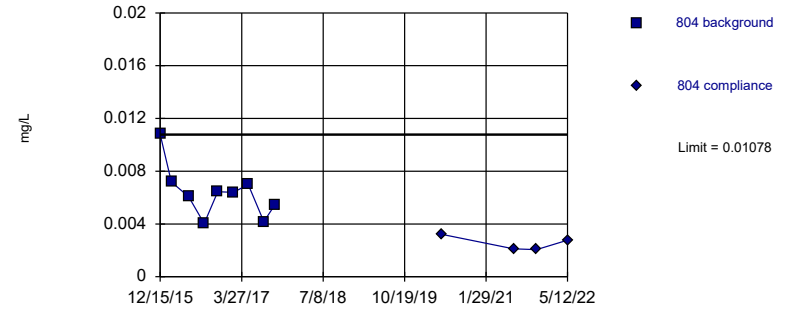


Background Data Summary: Mean=0.003324, Std. Dev.=0.0007636, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8749, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 9/28/2022 6:27 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

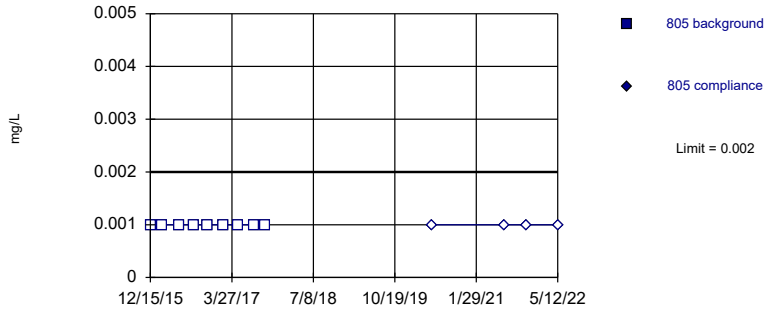


Background Data Summary: Mean=0.006396, Std. Dev.=0.001997, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8818, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Arsenic Analysis Run 9/28/2022 6:27 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

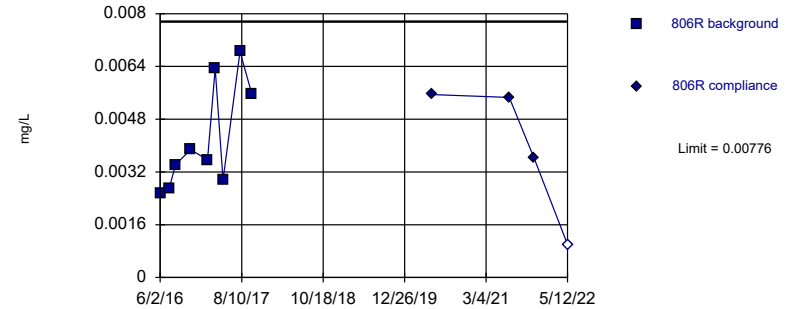


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Arsenic Analysis Run 9/28/2022 6:27 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 9/28/2022 6:27 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

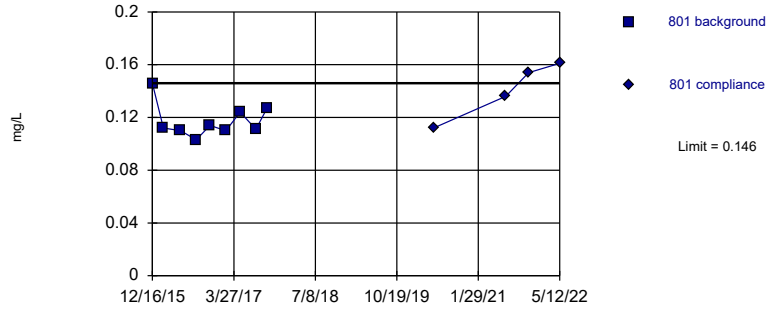
Prediction Limit

Constituent: Arsenic Analysis Run 9/28/2022 6:36 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

Exceeds Limit

Prediction Limit
Intrawell Parametric

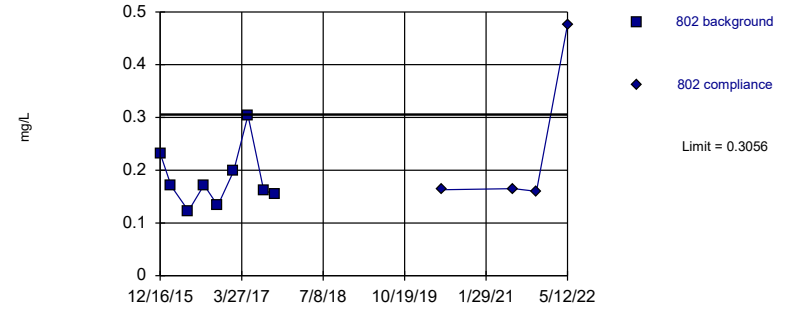


Background Data Summary: Mean=0.1174, Std. Dev.=0.013, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8491, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 9/28/2022 6:27 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Exceeds Limit

Prediction Limit
Intrawell Parametric

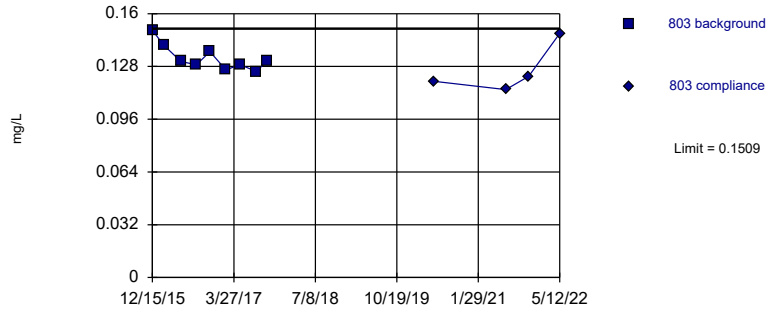


Background Data Summary: Mean=0.1831, Std. Dev.=0.05583, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8822, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 9/28/2022 6:27 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

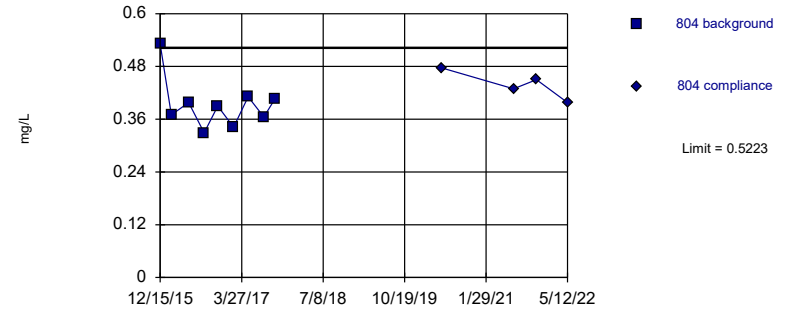


Background Data Summary: Mean=0.1332, Std. Dev.=0.008074, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8745, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 9/28/2022 6:27 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 9/28/2022 6:27 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

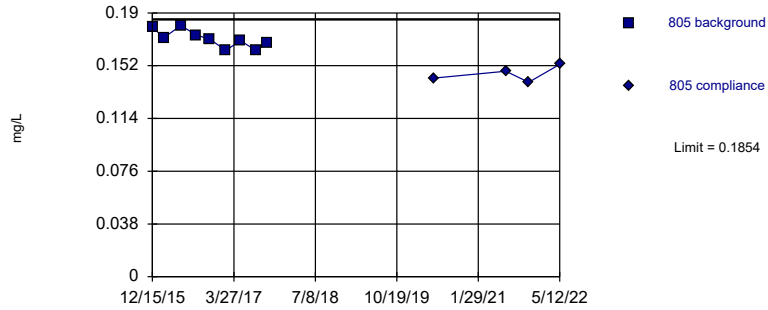
Prediction Limit

Constituent: Barium Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit
Intrawell Parametric

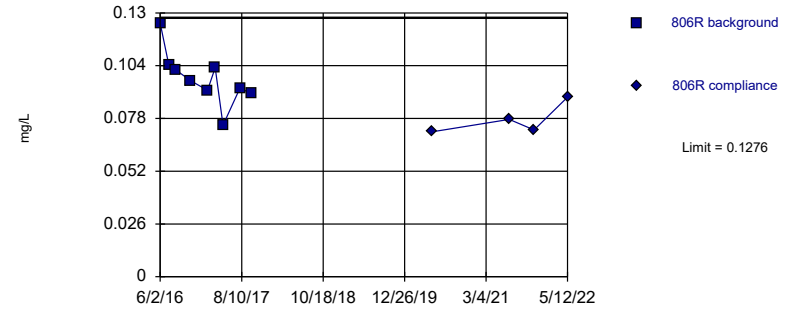


Background Data Summary: Mean=0.1713, Std. Dev.=0.006403, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9324, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 9/28/2022 6:28 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric



Prediction Limit

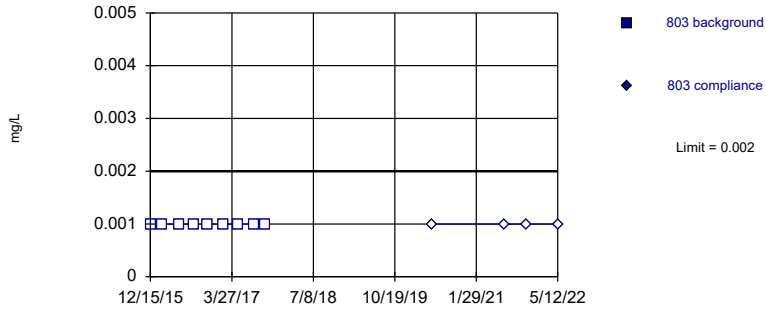
Constituent: Barium, Beryllium Analysis Run 9/28/2022 6:37 PM View: Ash Pond IV

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

Within Limit

Prediction Limit Intrawell Non-parametric

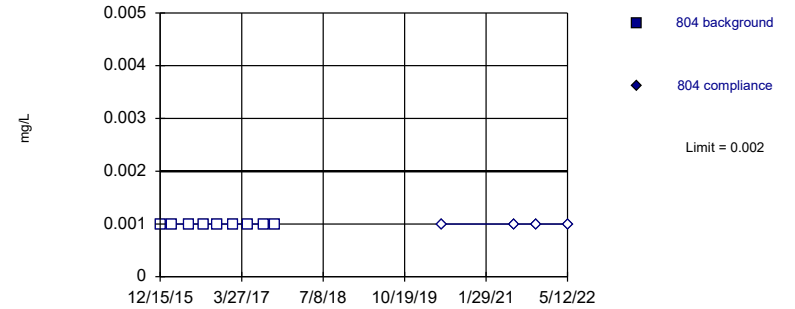


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 9/28/2022 6:28 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

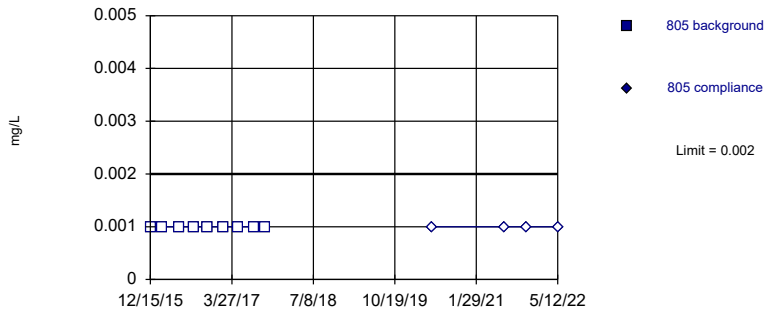


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 9/28/2022 6:28 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

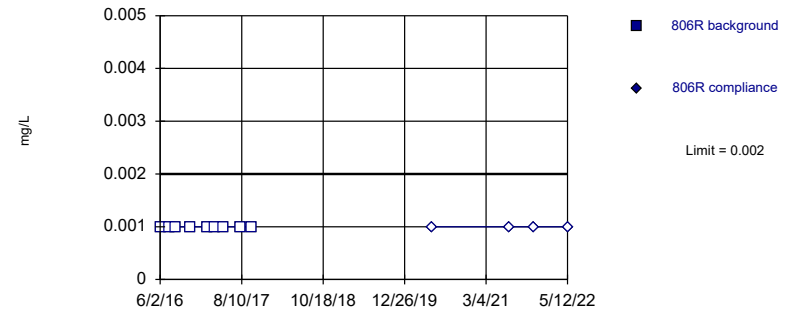


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Beryllium Analysis Run 9/28/2022 6:28 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 9/28/2022 6:28 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

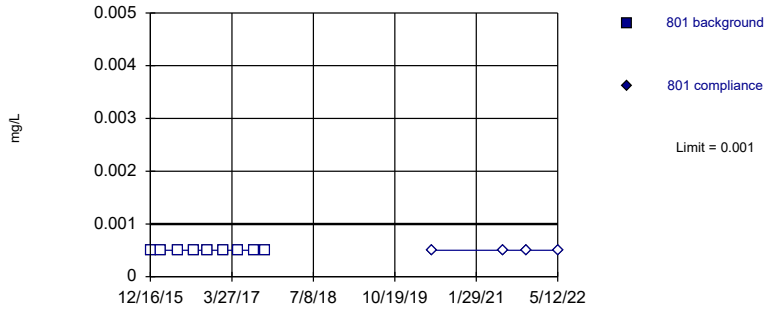
Prediction Limit

Constituent: Beryllium Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit Intrawell Non-parametric

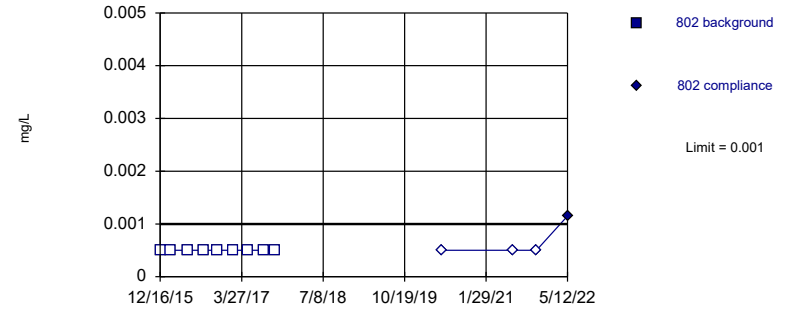


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 9/28/2022 6:28 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Exceeds Limit

Prediction Limit Intrawell Non-parametric

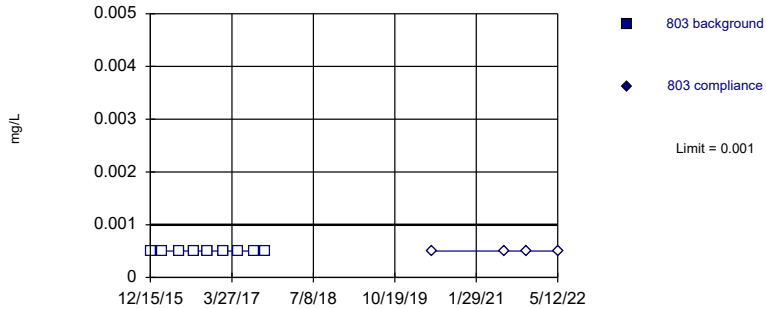


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 9/28/2022 6:28 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

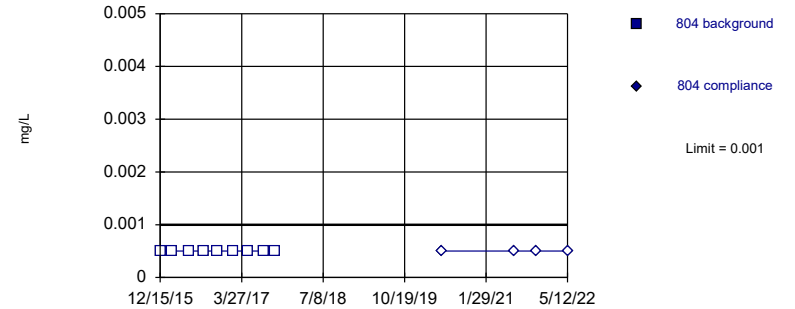


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cadmium Analysis Run 9/28/2022 6:28 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 9/28/2022 6:28 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Cadmium Analysis Run 9/28/2022 6:37 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

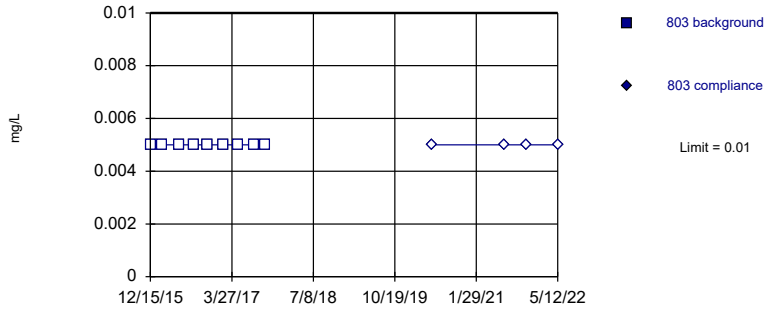
Prediction Limit

Constituent: Cadmium, Chromium Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit Intrawell Non-parametric

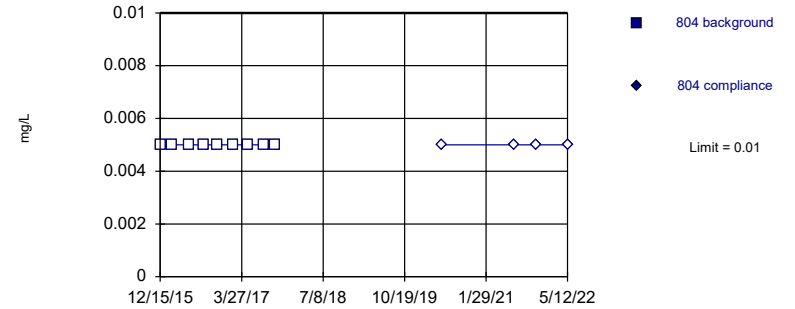


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 9/28/2022 6:28 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

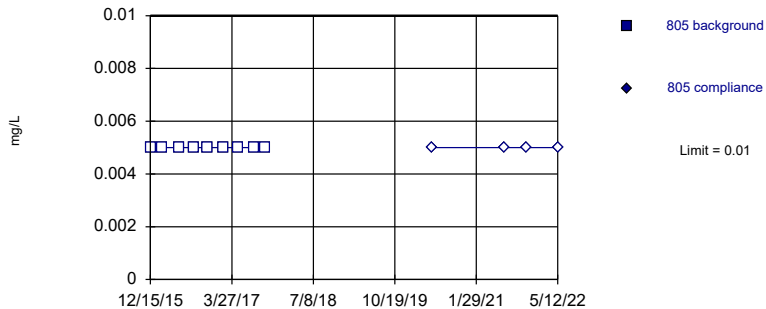


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 9/28/2022 6:28 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

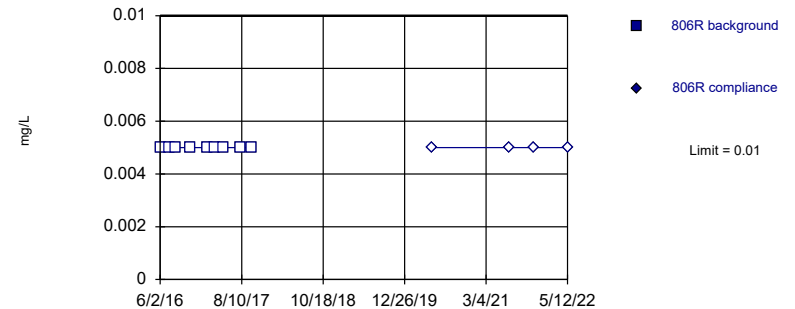


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium Analysis Run 9/28/2022 6:28 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: Chromium Analysis Run 9/28/2022 6:28 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

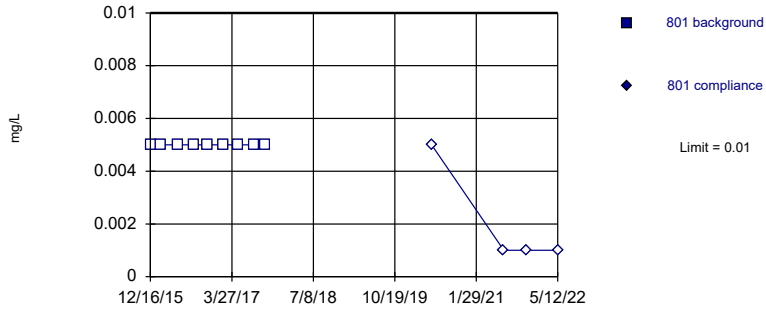
Prediction Limit

Constituent: Chromium Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit
Intrawell Non-parametric



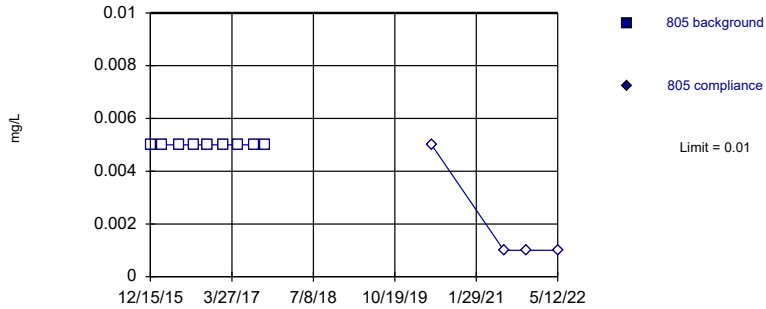
Prediction Limit

Constituent: Cobalt Analysis Run 9/28/2022 6:37 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	1st Verification			

Within Limit

Prediction Limit
Intrawell Non-parametric

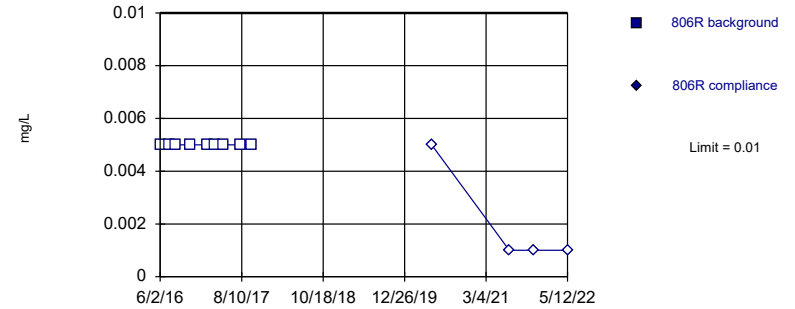


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

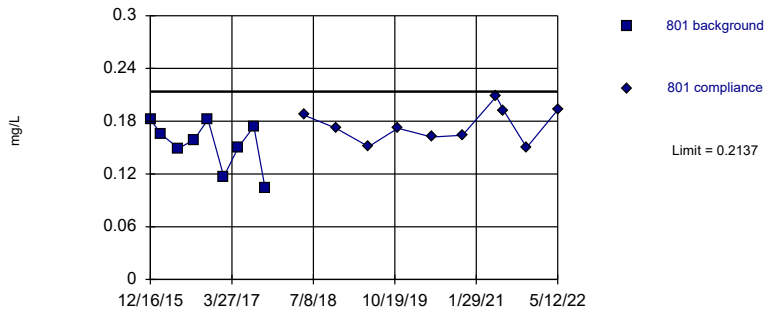


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Cobalt Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

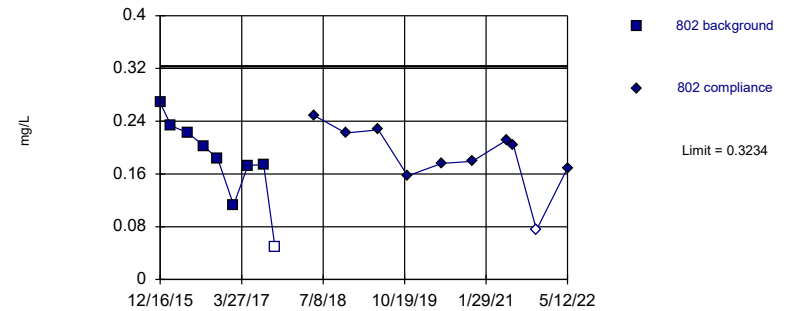


Background Data Summary: Mean=0.1536, Std. Dev.=0.02744, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.894, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 9/28/2022 6:29 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 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

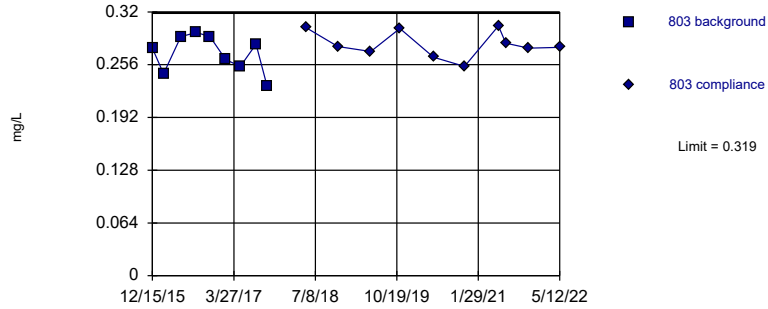
Prediction Limit

Constituent: Cobalt, Fluoride Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit
Intrawell Parametric

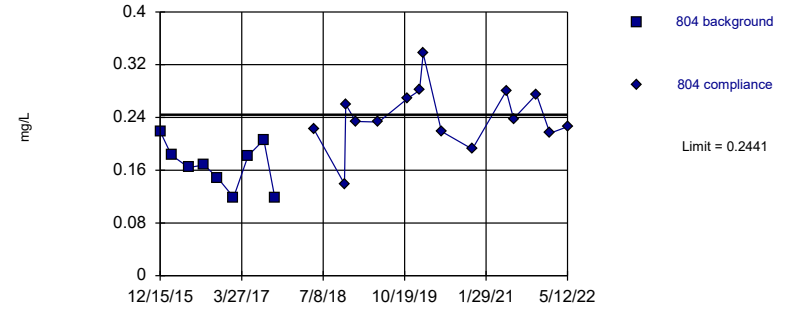


Background Data Summary: Mean=0.2692, Std. Dev.=0.0227, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9261, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

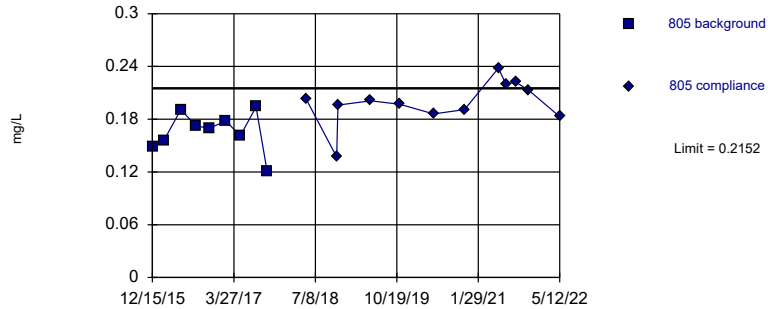


Background Data Summary: Mean=0.1674, Std. Dev.=0.03496, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9484, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

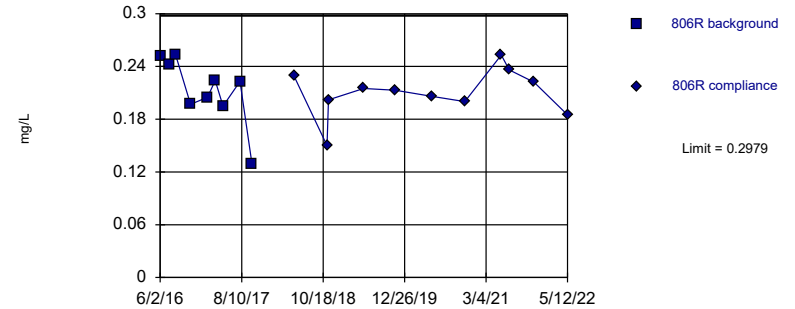


Background Data Summary: Mean=0.1656, Std. Dev.=0.02263, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9537, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Fluoride Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric



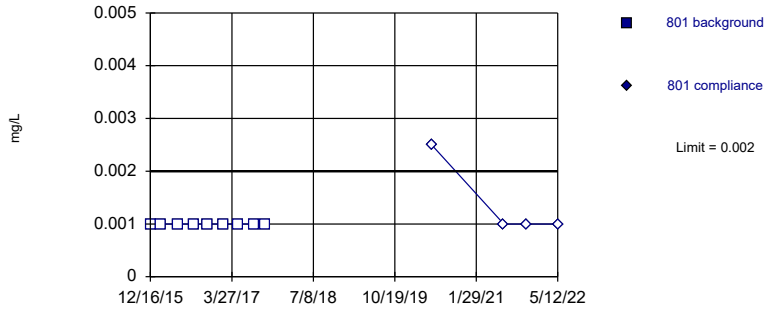
Prediction Limit

Constituent: Fluoride Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit
Intrawell Non-parametric



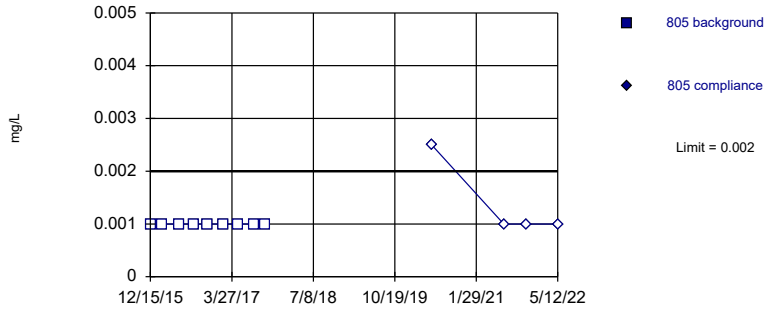
Prediction Limit

Constituent: Lead Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit
Intrawell Non-parametric

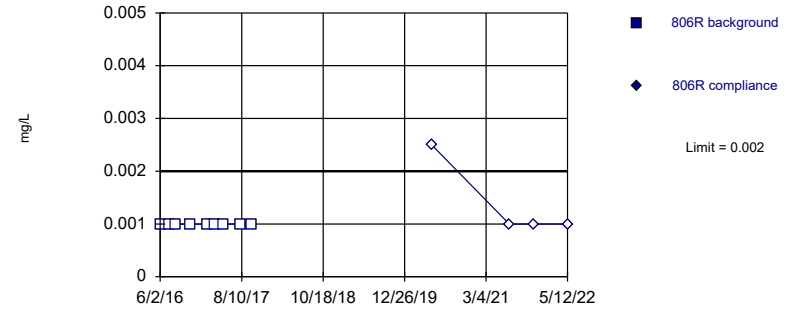


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

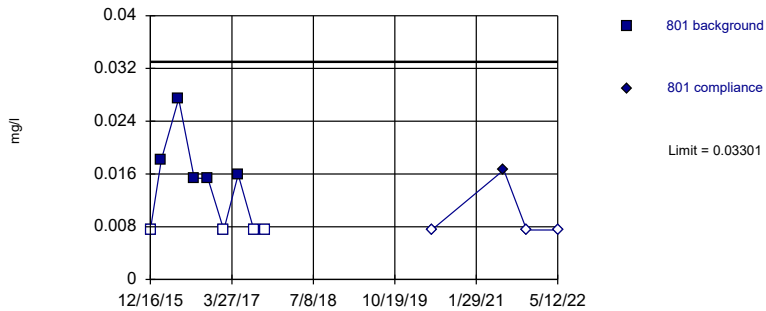


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lead Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

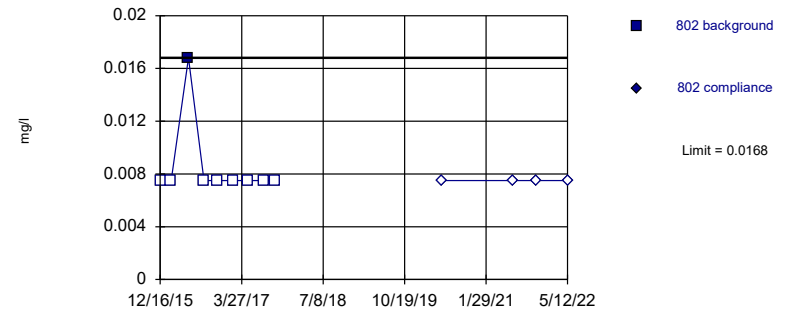


Background Data Summary (after Aitchison's Adjustment): Mean=0.01024, Std. Dev.=0.01038, n=9, 44.44% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8326, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Lithium Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric



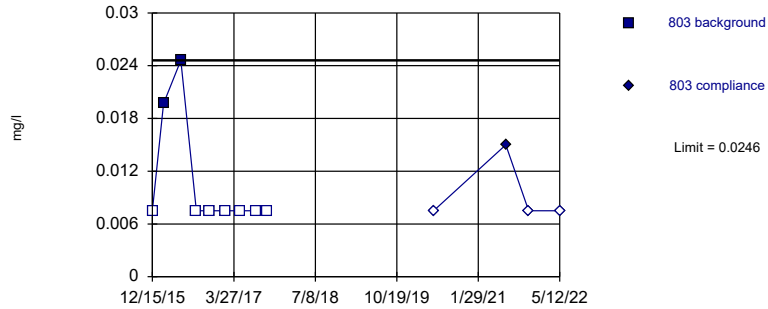
Prediction Limit

Constituent: Lead, Lithium Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit
Intrawell Non-parametric

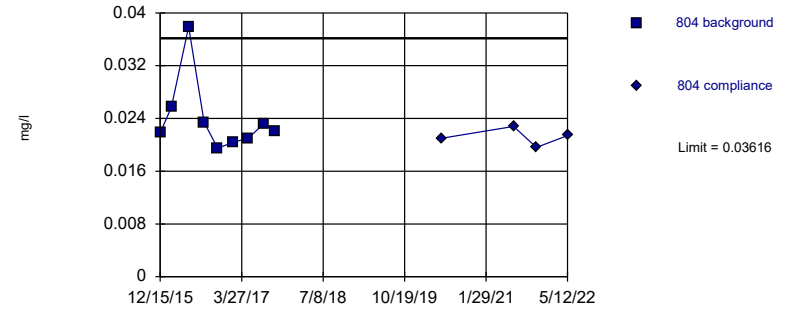


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intradwell Parametric

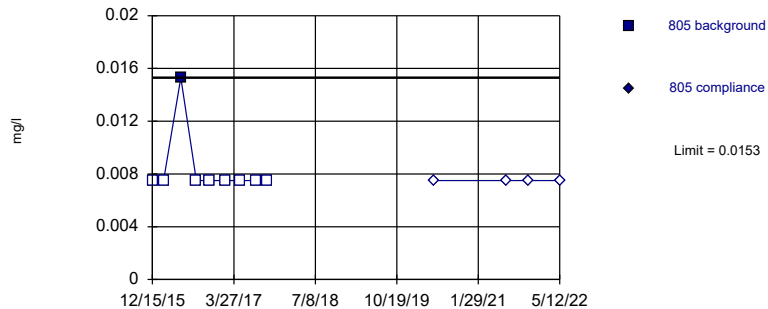


Background Data Summary (based on natural log transformation): Mean=-3.754, Std. Dev.=0.1981, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7756, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Lithium Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intradwell Non-parametric

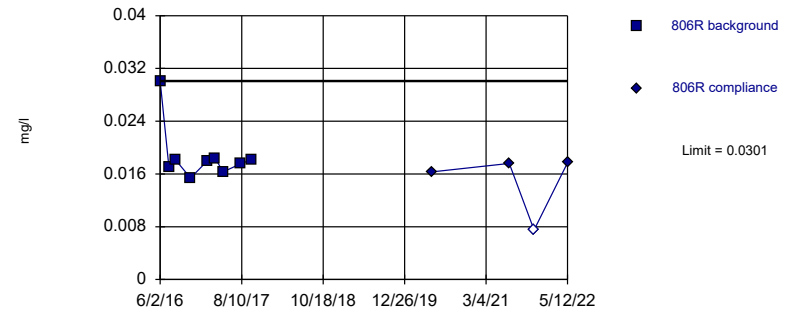


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Lithium Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intradwell 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 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

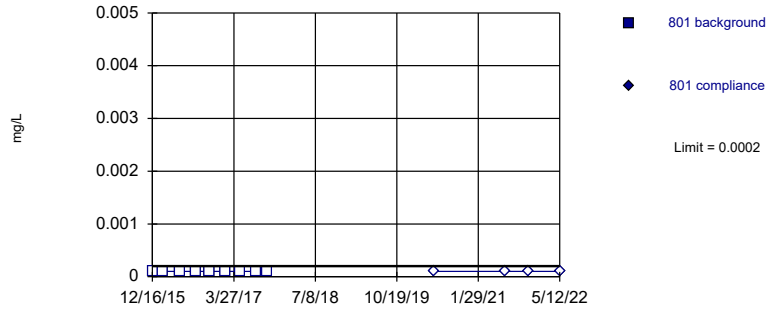
Constituent: Lithium Analysis Run 9/28/2022 6:37 PM View: Ash Pond IV

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

Within Limit

Prediction Limit Intrawell Non-parametric

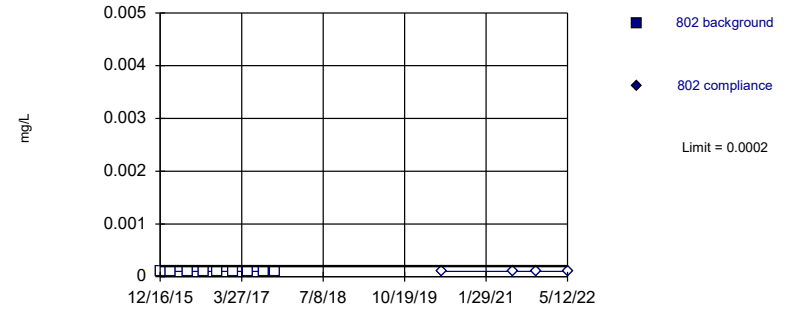


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

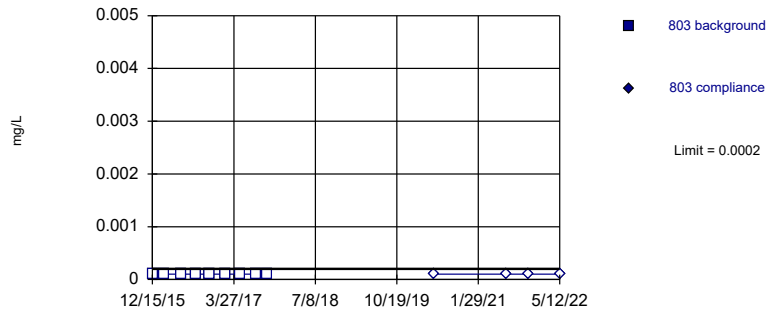


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

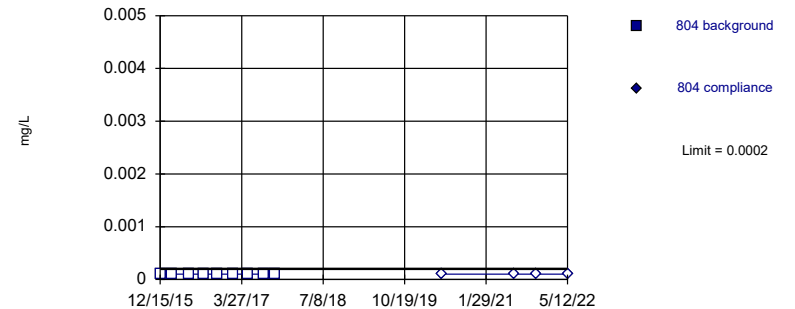


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 9/28/2022 6:29 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 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

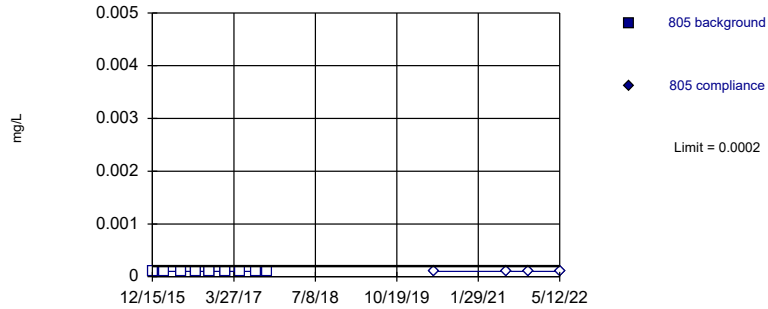
Prediction Limit

Constituent: Mercury Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit Intrawell Non-parametric

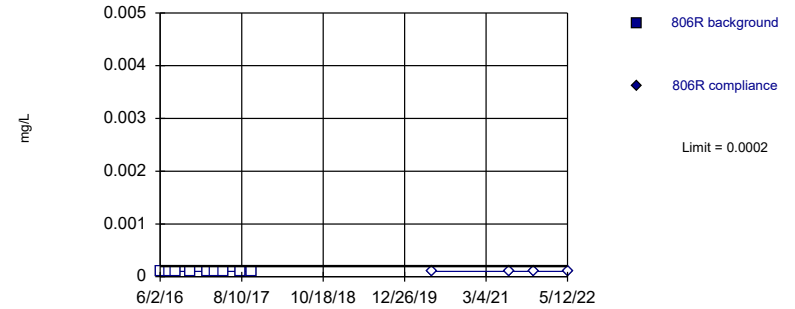


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

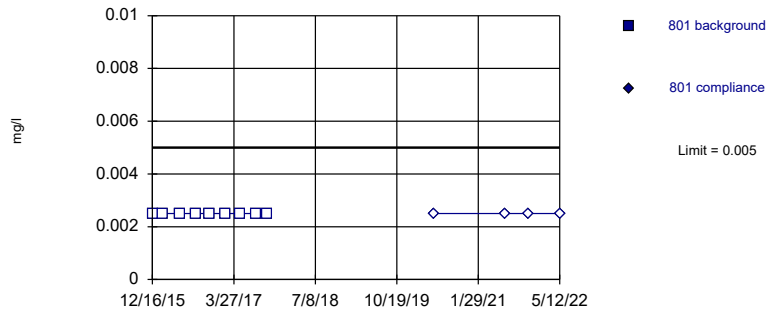


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Mercury Analysis Run 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit Intrawell Non-parametric

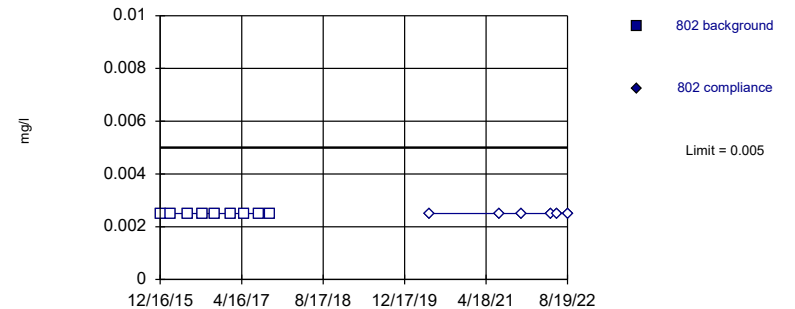


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Molybdenum Analysis Run 9/28/2022 6:29 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 9/28/2022 6:29 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Mercury, Molybdenum Analysis Run 9/28/2022 6:37 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	Extra Sample
8/19/2022								<0.005	Extra Sample

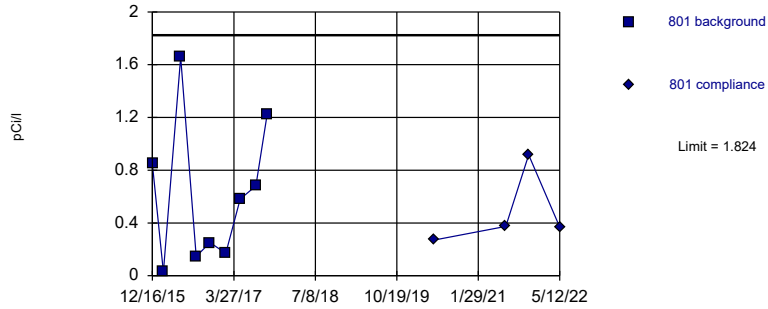
Prediction Limit

Constituent: Molybdenum Analysis Run 9/28/2022 6:37 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 1st Verification
8/18/2022								1.47 2nd Verification
9/1/2022								1.51 Extra Sample

Within Limit

Prediction Limit
Intrawell Parametric

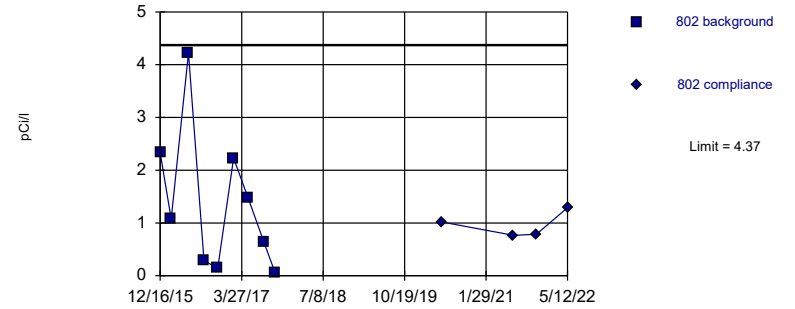


Background Data Summary: Mean=0.6204, Std. Dev.=0.5487, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.913, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 9/28/2022 6:30 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

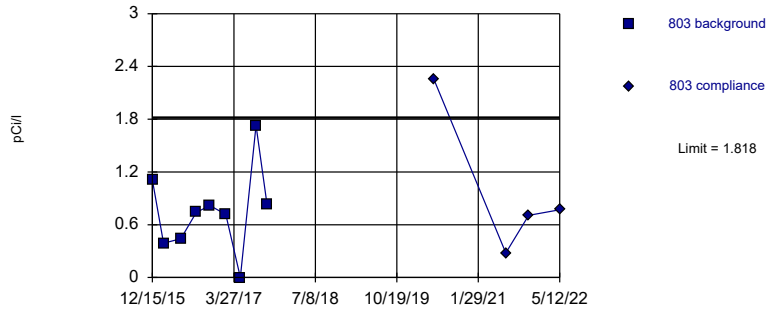


Background Data Summary: Mean=1.388, Std. Dev.=1.36, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8858, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 9/28/2022 6:30 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

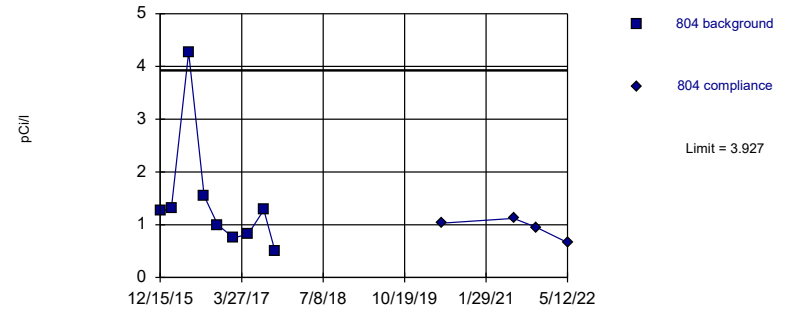


Background Data Summary: Mean=0.7523, Std. Dev.=0.486, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9475, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 9/28/2022 6:30 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 9/28/2022 6:30 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

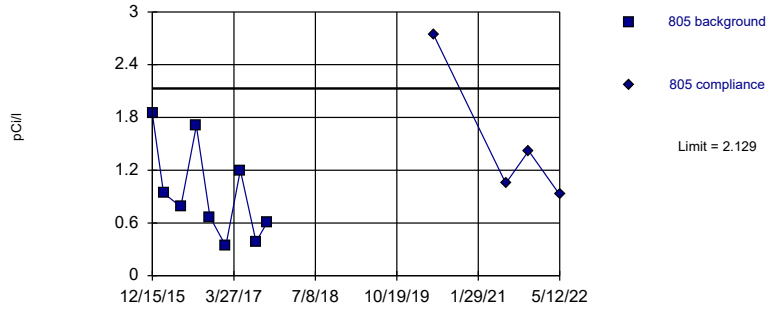
Prediction Limit

Constituent: Radium Combined Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit
Intrawell Parametric

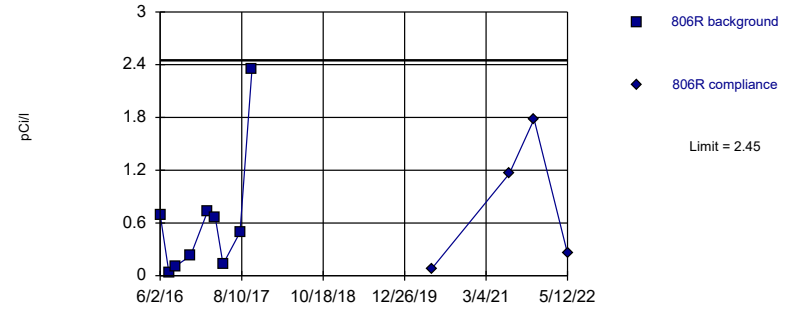


Background Data Summary: Mean=0.9412, Std. Dev.=0.5416, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9047, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 9/28/2022 6:30 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Parametric

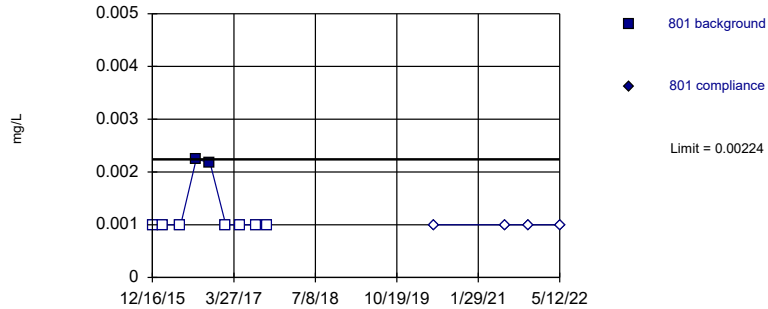


Background Data Summary (based on square root transformation): Mean=0.6773, Std. Dev.=0.4049, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9055, critical = 0.764. Kappa = 2.193 (c=15, w=6, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Radium Combined Analysis Run 9/28/2022 6:30 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Within Limit

Prediction Limit
Intrawell Non-parametric

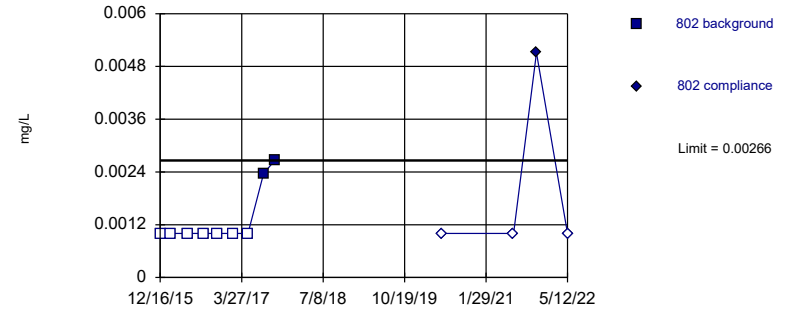


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Selenium Analysis Run 9/28/2022 6:30 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 9/28/2022 6:30 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

Prediction Limit

Constituent: Radium Combined, Selenium Analysis Run 9/28/2022 6:37 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

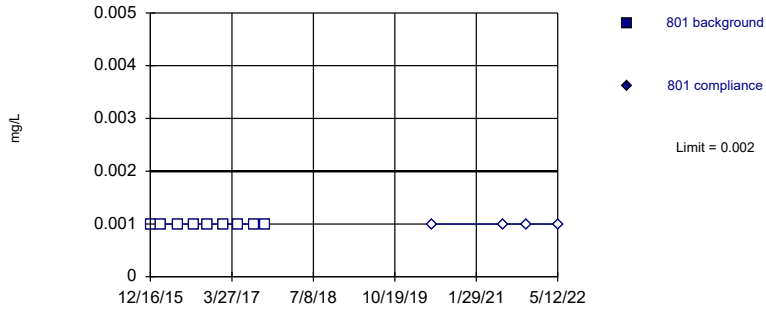
Prediction Limit

Constituent: Selenium Analysis Run 9/28/2022 6:37 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

Within Limit

Prediction Limit Intrawell Non-parametric



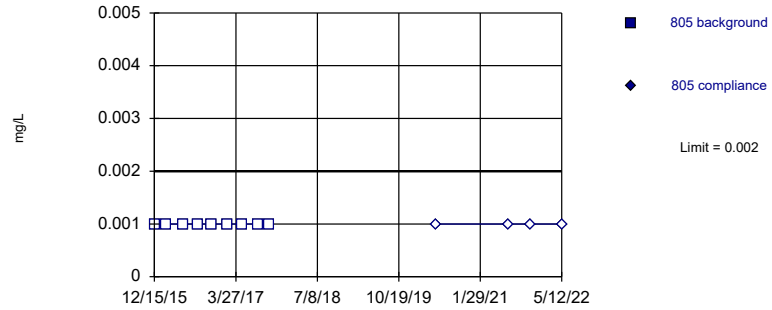
Prediction Limit

Constituent: Thallium Analysis Run 9/28/2022 6:37 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		<0.002		<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

Within Limit

Prediction Limit Intrawell Non-parametric



Prediction Limit

Constituent: Thallium Analysis Run 9/28/2022 6:37 PM View: Ash Pond IV
Sibley Generating Station UWL Client: SCS Engineers Data: Sibley

	805	805	806R	806R
12/15/2015	<0.002			
2/17/2016	<0.002			
5/26/2016	<0.002			
6/2/2016			<0.002	
7/19/2016			<0.002	
8/23/2016	<0.002		<0.002	
11/10/2016	<0.002			
11/11/2016			<0.002	
2/9/2017	<0.002		<0.002	
3/22/2017			<0.002	
5/3/2017	<0.002		<0.002	
8/1/2017	<0.002		<0.002	
10/4/2017	<0.002		<0.002	
5/18/2020		<0.002		<0.002
7/6/2021		<0.002		<0.002
11/15/2021		<0.002		<0.002
5/12/2022		<0.002		<0.002

Prediction Limit

Sibley Generating Station UWL Client: SCS Engineers Data: Sibley Printed 9/28/2022, 6:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	801	0.002	n/a	5/12/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	802	0.002	n/a	5/12/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	803	0.002	n/a	5/12/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	804	0.002	n/a	5/12/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	805	0.002	n/a	5/12/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Antimony (mg/L)	806R	0.002	n/a	5/12/2022	0.002ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	801	0.002	n/a	5/12/2022	0.0026	Yes	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	802	0.007646	n/a	6/15/2022	0.001ND	No	9	11.11	x^(1/3)	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	803	0.004999	n/a	5/12/2022	0.0046	No	9	0	No	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	804	0.01078	n/a	5/12/2022	0.00277	No	9	0	No	0.000...	Param Intra 1 of 3
Arsenic (mg/L)	805	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Arsenic (mg/L)	806R	0.00776	n/a	5/12/2022	0.001ND	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	801	0.146	n/a	5/12/2022	0.161	Yes	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	802	0.3056	n/a	5/12/2022	0.476	Yes	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	803	0.1509	n/a	5/12/2022	0.148	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	804	0.5223	n/a	5/12/2022	0.398	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	805	0.1854	n/a	5/12/2022	0.153	No	9	0	No	0.000...	Param Intra 1 of 3
Barium (mg/L)	806R	0.1276	n/a	5/12/2022	0.0885	No	9	0	No	0.000...	Param Intra 1 of 3
Beryllium (mg/L)	801	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	802	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	803	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	804	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	805	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Beryllium (mg/L)	806R	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	801	0.001	n/a	5/12/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	802	0.001	n/a	5/12/2022	0.00115	Yes	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	803	0.001	n/a	5/12/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	804	0.001	n/a	5/12/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	805	0.001	n/a	5/12/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cadmium (mg/L)	806R	0.001	n/a	5/12/2022	0.0005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	801	0.01	n/a	5/12/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	802	0.01	n/a	5/12/2022	0.0109	Yes	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	803	0.01	n/a	5/12/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	804	0.01	n/a	5/12/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	805	0.01	n/a	5/12/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium (mg/L)	806R	0.01	n/a	5/12/2022	0.005ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	801	0.01	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	802	0.01	n/a	6/15/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	803	0.01	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	804	0.01	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	805	0.01	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Cobalt (mg/L)	806R	0.01	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Fluoride (mg/L)	801	0.2137	n/a	5/12/2022	0.193	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	802	0.3234	n/a	5/12/2022	0.169	No	9	11.11	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	803	0.319	n/a	5/12/2022	0.277	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	804	0.2441	n/a	5/12/2022	0.226	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	805	0.2152	n/a	5/12/2022	0.183	No	9	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	806R	0.2979	n/a	5/12/2022	0.185	No	9	0	No	0.000...	Param Intra 1 of 3
Lead (mg/L)	801	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	802	0.0042	n/a	5/12/2022	0.0134	Yes	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 9/28/2022, 6:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Lead (mg/L)	803	0.00385	n/a	5/12/2022	0.001ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	804	0.00865	n/a	5/12/2022	0.001ND	No	9	66.67	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	805	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lead (mg/L)	806R	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	801	0.03301	n/a	5/12/2022	0.0075ND	No	9	44.44	No	0.000...	Param Intra 1 of 3
Lithium (mg/l)	802	0.0168	n/a	5/12/2022	0.0075ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	803	0.0246	n/a	5/12/2022	0.0075ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	804	0.03616	n/a	5/12/2022	0.0214	No	9	0	ln(x)	0.000...	Param Intra 1 of 3
Lithium (mg/l)	805	0.0153	n/a	5/12/2022	0.0075ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Lithium (mg/l)	806R	0.0301	n/a	5/12/2022	0.0177	No	9	0	n/a	0.004675	NP Intra (normality) ...
Mercury (mg/L)	801	0.0002	n/a	5/12/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	802	0.0002	n/a	5/12/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	803	0.0002	n/a	5/12/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	804	0.0002	n/a	5/12/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	805	0.0002	n/a	5/12/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Mercury (mg/L)	806R	0.0002	n/a	5/12/2022	0.0001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	801	0.005	n/a	5/12/2022	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	802	0.005	n/a	8/19/2022	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	803	0.005	n/a	5/12/2022	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	804	0.005	n/a	5/12/2022	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	805	0.005	n/a	5/12/2022	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Molybdenum (mg/l)	806R	1.395	n/a	9/1/2022	1.51	Yes	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	801	1.824	n/a	5/12/2022	0.369J	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	802	4.37	n/a	5/12/2022	1.29	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	803	1.818	n/a	5/12/2022	0.77	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	804	3.927	n/a	5/12/2022	0.661	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	805	2.129	n/a	5/12/2022	0.922	No	9	0	No	0.000...	Param Intra 1 of 3
Radium Combined (pCi/l)	806R	2.45	n/a	5/12/2022	0.253J	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Selenium (mg/L)	801	0.00224	n/a	5/12/2022	0.001ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	802	0.00266	n/a	5/12/2022	0.001ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	803	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	804	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	805	0.002	n/a	5/12/2022	0.00751	Yes	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Selenium (mg/L)	806R	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	801	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	802	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	803	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	804	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	805	0.002	n/a	5/12/2022	0.001ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Thallium (mg/L)	806R	0.002	n/a	5/12/2022	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
September 28, 2022
Revision 1: October 13, 2022

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)