

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

UPPER AQC IMPOUNDMENT LA CYGNE GENERATING STATION LA CYGNE, KANSAS

Presented To:
Eversource Energy, Inc.

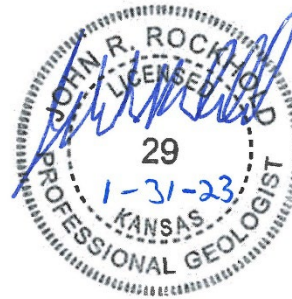
SCS ENGINEERS

27217233.22 | 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 Professional Geologist in the State of Kansas, do hereby certify that the 2022 Annual Groundwater Monitoring and Corrective Action Report for the Upper AQC Impoundment at the La Cygne Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).



John R. Rockhold, P.G.

SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Kansas, do hereby certify that the 2022 Annual Groundwater Monitoring and Corrective Action Report for the Upper AQC Impoundment at the La Cygne 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.....	2
2 § 257.90(e) ANNUAL REPORT REQUIREMENTS	2
2.1 § 257.90(e)(1) Site Map.....	3
2.2 § 257.90(e)(2) Monitoring System Changes.....	3
2.3 § 257.90(e)(3) Summary of Sampling Events.....	3
2.4 § 257.90(e)(4) Monitoring Transition Narrative.....	4
2.5 § 257.90(e)(5) Other Requirements.....	4
2.5.1 § 257.90(e) Program Status	4
2.5.2 § 257.94(d)(3) Demonstration for Alternative Detection Monitoring Frequency... 5	5
2.5.3 § 257.94(e)(2) Detection Monitoring Alternate Source Demonstration..... 5	5
2.5.4 § 257.95(c)(3) Demonstration for Alternative Assessment Monitoring Frequency	6
2.5.5 § 257.95(d)(3) Assessment Monitoring Concentrations and Groundwater Protection Standards	6
2.5.6 § 257.95(g)(3)(ii) Assessment Monitoring Alternate Source Demonstration	6
2.5.7 § 257.96(a) Demonstration for Additional Time for Assessment of Corrective Measures	6
2.6 § 257.90(e)(6) Overview Summary.....	7
3 GENERAL COMMENTS	8

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 III Detection Monitoring Results

Table 2: Detection Monitoring Field Measurements

Appendix C Alternative Source Demonstration

C.1 CCR Groundwater Monitoring Alternative Source Demonstration Report
November 2021 Groundwater Monitoring Event, Upper AQC Impoundment, La Cygne Generating Station (May 2022)

2022 Groundwater Monitoring and Corrective Action Report

- C.2 CCR Groundwater Monitoring Alternative Source Demonstration Report May 2022
Groundwater Monitoring Event, CCR Landfill and Upper AQC Impoundment,
La Cygne Generating Station (December 2022)

Appendix D Laboratory Analytical Reports

Appendix E Statistical Analyses

- E.1 Fall 2021 Semiannual Detection Monitoring Statistical Analyses
- E.2 Spring 2022 Semiannual Detection 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 Metro, 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 Upper AQC Impoundment at the La Cygne 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 a detection monitoring program in compliance with § 257.94.

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

Monitoring Event	Monitoring Well	Constituent	ASD
Fall 2021	MW-706	Sulfate	Successful
Spring 2022	MW-704	Chloride	Successful

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

Not applicable because an assessment monitoring program was not initiated.

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;

Not applicable because there was no assessment monitoring conducted.

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

Not applicable because there was no assessment of corrective measures initiated for the CCR Unit.

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

Not applicable because there was no assessment of corrective measures initiated for the CCR Unit.

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

Not applicable because there was no assessment of corrective measures initiated for the CCR Unit.

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

Not applicable because corrective measures are not required.

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.

Not applicable because corrective measures are not required.

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 Upper AQC Impoundment and all background (or upgradient) and downgradient monitoring wells with identification numbers for the Upper AQC Impoundment groundwater monitoring program is provided as **Figure 1** in **Appendix A**.

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

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

No new monitoring wells were installed and no wells were decommissioned as part of the CCR groundwater monitoring program for the Upper AQC 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;

Only detection monitoring was required to be conducted during the reporting period (2022). Samples collected in 2022 were collected and analyzed for Appendix III detection monitoring constituents. Results of the sampling events are provided in **Appendix B, Table 1** (Appendix III Detection Monitoring Results), and **Table 2** (Detection Monitoring Field Measurements). These tables include Fall 2021 semiannual detection monitoring event verification sample data collected and analyzed in 2022; Spring 2022 semiannual detection monitoring data and verification sample data; and the initial Fall 2022 semiannual detection monitoring data. 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

There was no transition between monitoring programs in 2022. Only detection monitoring was conducted in 2022.

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 detection monitoring.

Summary of Key Actions Completed.

- a. completion of the Fall 2021 verification sampling and analyses per the certified statistical method,
- b. completion of the statistical evaluation of the Fall 2021 semiannual detection monitoring sampling and analysis event per the certified statistical method,
- c. completion of the 2021 Annual Groundwater Monitoring and Corrective Action Report,
- d. completion of a successful alternative source demonstration for the Fall 2021 semiannual detection monitoring sampling and analysis event,
- e. completion of the Spring 2022 semiannual detection monitoring sampling and analysis event with subsequent verification sampling per the certified statistical method,
- f. completion of the statistical evaluation of the Spring 2022 semiannual detection monitoring sampling and analysis event per the certified statistical method,
- g. initiation of the Fall 2022 semiannual detection monitoring sampling and analysis event, and
- h. completion of a successful alternative source demonstration for the Spring 2022 semiannual detection monitoring sampling and analysis event.

2022 Groundwater Monitoring and Corrective Action Report

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 detection monitoring sampling and analysis event, and, if required, alternative source demonstration(s). Semiannual Spring and Fall 2023 groundwater sampling and analysis. Completion of the statistical evaluation of the Spring 2023 detection monitoring sampling and analysis event, and, if required, alternative source demonstration(s).

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 following demonstration reports are included as **Appendix C**:

- C1 CCR Groundwater Monitoring Alternative Source Demonstration Report
November 2021 Groundwater Monitoring Event, Upper AQC Impoundment, La Cygne
Generating Station (May 2022)
- C2 CCR Groundwater Monitoring Alternative Source Demonstration Report May 2022
Groundwater Monitoring Event, Upper AQC Impoundment, La Cygne Generating
Station (December 2022)

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).

Not applicable because there was no assessment monitoring conducted.

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.

Not applicable because there was no assessment monitoring conducted.

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 there was no assessment monitoring conducted.

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.

Not applicable because there was no assessment monitoring conducted.

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 Fall 2021 detection monitoring event.
- March 2022 – Second verification sampling for the Fall 2021 detection monitoring event.
- May 2022 – Spring 2022 semiannual detection monitoring sampling event.
- July 2022 – First verification sampling for the Spring 2022 detection monitoring sampling event.
- August 2022 - Second verification sampling for Spring 2022 detection monitoring sampling event.
- November 2022 - Fall 2022 semiannual detection 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.
- Spring 2022 semiannual detection monitoring statistical analyses.

- **Groundwater Potentiometric Surface Maps (Appendix A):**

Includes revised 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 detection monitoring sampling event.
- Figure 3 - Fall 2022 semiannual detection 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 La Cygne Generating Station at the time of fieldwork. This report includes a review and compilation of the required information and does not reflect any variations of the subsurface, which may occur between sampling locations. Actual subsurface conditions may vary and the extent of such variations may not become evident without further investigation.

Conclusions drawn by others from the result of this work should recognize the limitation of the methods used. Please note that SCS Engineers does not warrant the work of regulatory agencies or other third parties supplying information used in the assimilation of this report. This report is prepared in accordance with generally accepted environmental engineering and geological practices, within the constraints of the client's directives. It is intended for the exclusive use of Evergy Metro, Inc. for specific application to the La Cygne Generating Station Upper AQC 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\La Cygne\CCR Annual Report\2021\Upper\La Cygne LF UAOC Fig 1_2021.dwg Jan 23, 2023 - 11:38am Layout Name: Fig 1 Upper By: swjly

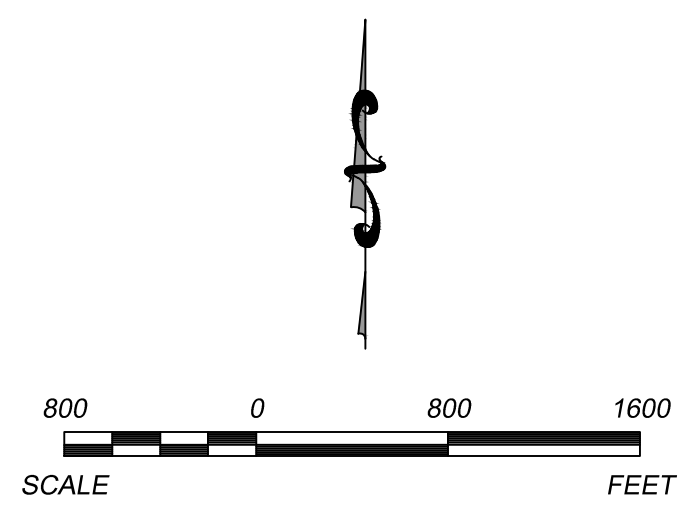


LEGEND

 CCR UNIT BOUNDARY
 (APPROXIMATE LIMITS OF UPPER AQC IMPOUNDMENT)

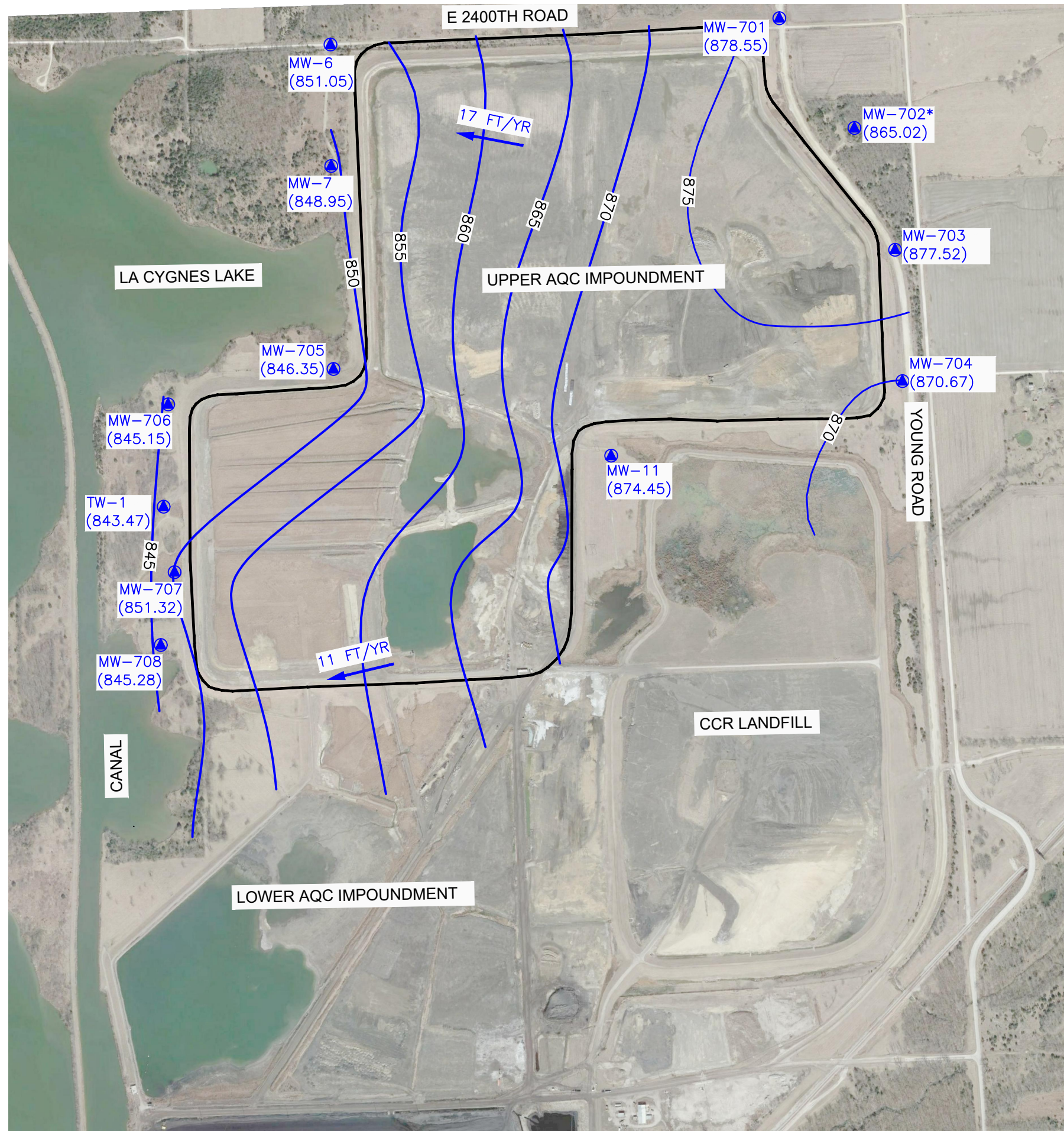
 MW-703 CCR GROUNDWATER MONITORING SYSTEM WELLS

- NOTES:**
1. KDHE FACILITY PERMIT AND LANDFILL PERMIT BOUNDARIES VARY FROM THAT SHOWN.
 2. GOOGLE EARTH IMAGE DATED MARCH 2020. BOUNDARY AND MONITOR WELL LOCATIONS ARE APPROXIMATE.
 3. BOUNDARY AND MONITOR WELL LOCATIONS ARE PROVIDED BY AECOM.



SCS ENGINEERS 8575 W. 110th St., Ste. 100 Overland Park, MO 66210 PH: (913) 681-0030 FAX: (913) 681-0012 PROJ. NO. 27517233.20 DSK: BT ALR	CLIENT EVERGY METRO, INC LA CYGNE GENERATING STATION LA CYGNE, KANSAS	SHEET TITLE SITE MAP UPPER AQC IMPOUNDMENT CCR GROUNDWATER MONITORING SYSTEM	REV.	DATE	CK.	BY
			△	-	-	-
CADD FILE: LA CYGNE LF UAOC FIG 1_2021.DWG		PROJECT TITLE 2022 CCR GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT	△	-	-	-
DATE: 1/23/2023			△	-	-	-
FIGURE NO. 1				△	-	-
				△	-	-

N:\KCP\Projects\Groundwater\2022\La Cygne LF_May 2022.dwg Jan 23, 2023 - 8:04am Layout Name: Fig 1 Upper By: swfly



LEGEND

- CCR UNIT BOUNDARY (APPROXIMATE LIMITS OF UPPER AQC IMPOUNDMENT)
- MW-703 CCR GROUNDWATER MONITORING SYSTEM WELLS (GROUNDWATER ELEVATION)
- 875- GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE FOR THIS UNIT)
- MW-702* INDICATES WELL NOT USED IN POTENTIOMETRIC SURFACE MAP CREATION
- 17 FT/YR DIRECTION OF GROUNDWATER FLOW AND CALCULATED GROUNDWATER FLOW RATE (FEET/YEAR)

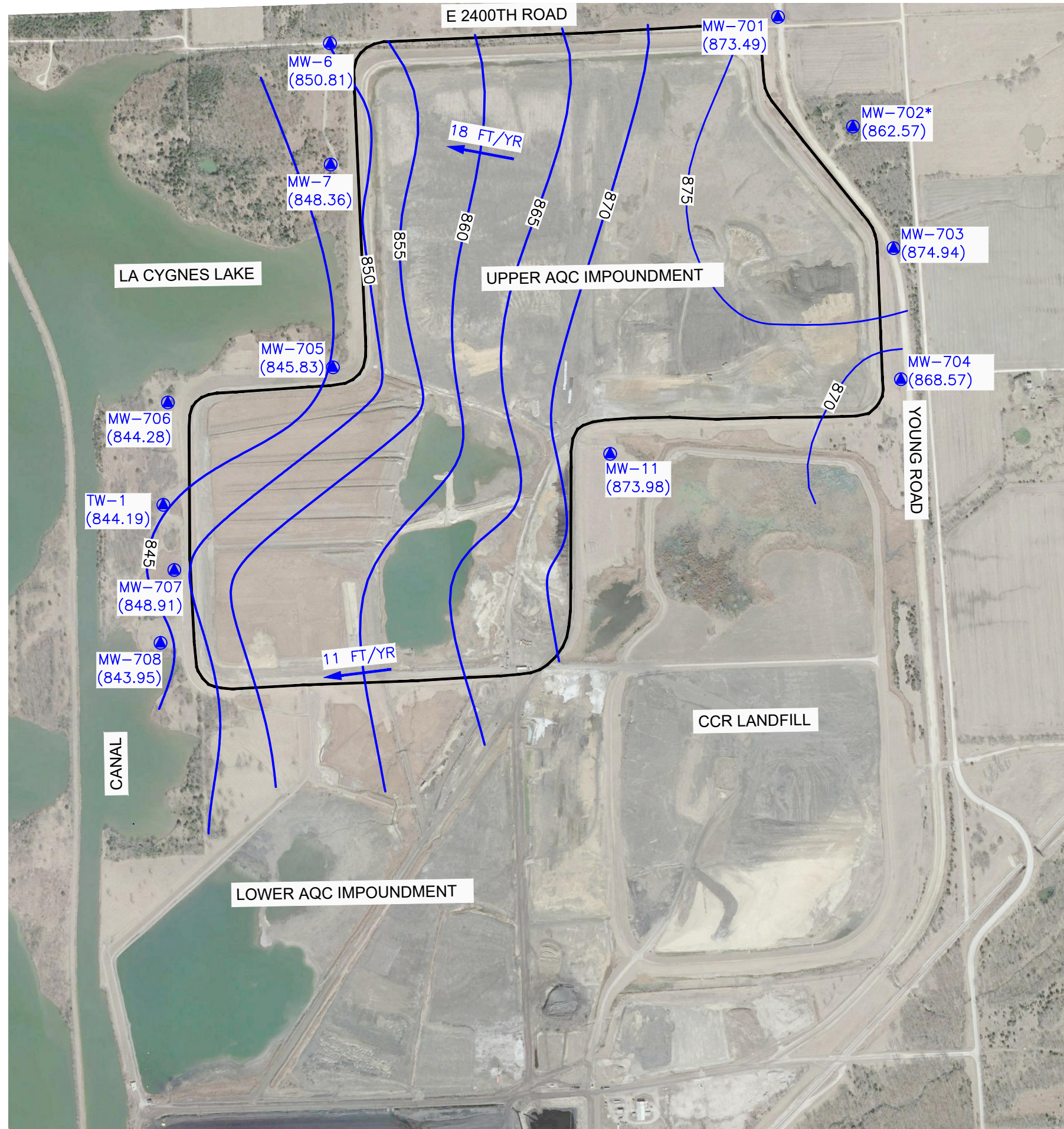
NOTES:

1. KDHE FACILITY PERMIT AND LANDFILL PERMIT BOUNDARIES VARY FROM THAT SHOWN.
2. GOOGLE EARTH IMAGE DATED MARCH 2020. BOUNDARY AND MONITOR WELL LOCATIONS ARE APPROXIMATE.
3. BOUNDARY AND MONITOR WELL LOCATIONS ARE PROVIDED BY AECOM.
4. WATER LEVEL MEASUREMENTS COMPLETED ON MAY 9, 2022.



CK: BY	-	REV	-	DATE	SHEET TITLE	POTENTIOMETRIC SURFACE MAP
	-		-			-
PROJECT TITLE						2022 GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT						
CLIENT						
EVERGY METRO, INC						
LA CYGNE GENERATING STATION						
LA CYGNE, KANSAS						
SCS ENGINEERS						
8575 W. 110th St., Ste. 100						
Clyde, MO 64830						
PH: (813) 681-0030 FAX: (813) 681-0012						
PROJ. NO.	DWN. BY:	MRB	Q/A RW BY:	JRR		
27217233.22	CHK. BY:	JF	PROJ. MGR.	JRR		
DISK BY:	DAW					
CADD FILE:						
LA CYGNE LF_MAY 2022.dwg						
DATE:						
1/23/2023						
FIGURE NO.						
2						

N:\KCPL\Projects\Groundwater\DWG\La Cygne\2022\La Cygne LF_ Nov 2022.dwg - Jan 23, 2023 - 8:23am Layout Name: Fig 1 Upper By: swly

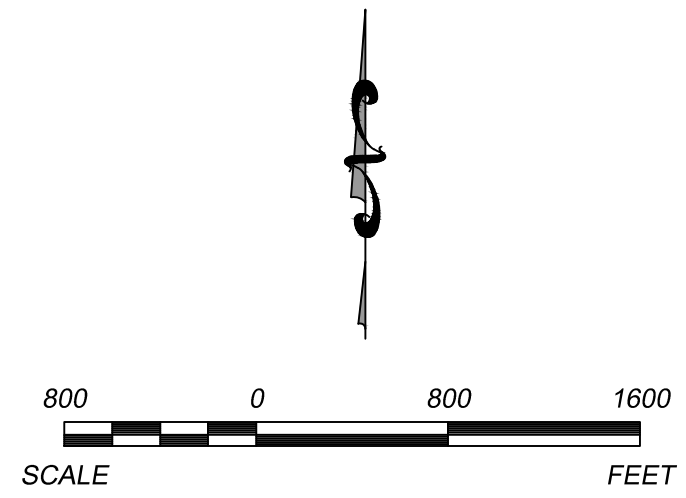


LEGEND

- CCR UNIT BOUNDARY (APPROXIMATE LIMITS OF UPPER AQC IMPOUNDMENT)
- MW-703 (877.00) CCR GROUNDWATER MONITORING SYSTEM WELLS (GROUNDWATER ELEVATION)
- 875- GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE FOR THIS UNIT)
- MW-702* INDICATES WELL NOT USED IN POTENTIOMETRIC SURFACE MAP CREATION
- 18 FT/YR DIRECTION OF GROUNDWATER FLOW AND CALCULATED GROUNDWATER FLOW RATE (FEET/YEAR)

NOTES:

1. KDHE FACILITY PERMIT AND LANDFILL PERMIT BOUNDARIES VARY FROM THAT SHOWN.
2. GOOGLE EARTH IMAGE DATED MARCH 2020. BOUNDARY AND MONITOR WELL LOCATIONS ARE APPROXIMATE.
3. BOUNDARY AND MONITOR WELL LOCATIONS ARE PROVIDED BY AECOM.
4. WATER LEVEL MEASUREMENTS COLLECTED ON NOVEMBER 9, 2022.



	CK:						
	BY:						
	REV:	△	△	△	△	△	△
	DATE:	-	-	-	-	-	-
SHEET TITLE		POTENTIOMETRIC SURFACE MAP (NOVEMBER 2022) UPPER AQC IMPOUNDMENT					
PROJECT TITLE		2022 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT					
CLIENT		EVERGY METRO, INC LA CYGNE GENERATING STATION LA CYGNE, KANSAS					
SCS ENGINEERS		8575 W. 110th St., Ste. 100 PH. (913) 681-0030 FAX: (913) 681-0012 DWN. BY: MRB Q/A RW BY: JRR CHK. BY: JF PROJ. MGR: JRR DSK. BY: DAW					
CADD FILE:		LA CYGNE LF_ NOV 2022.DWG					
DATE:		1/23/2023					
FIGURE NO.		3					

APPENDIX B

TABLES

Table 1: Appendix III Detection Monitoring Results

Table 2: Detection Monitoring Field Measurements

Table 1
Upper AQC Impoundment
Appendix III Detection Monitoring Results
Evergy LaCygne Generating Station

Well Number	Sample Date	Appendix III Constituents						Total Dissolved Solids (mg/L)
		Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	pH (S.U.)	Sulfate (mg/L)	
MW-6	5/9/2022	1.09	68.2	189	0.543	7.34	110	1010
MW-6	11/9/2022	1.14	75.3	195	0.525	6.86	109	1000
MW-7	5/9/2022	1.49	20.7	97.3	1.17	7.79	1.98 (J)	816
MW-7	11/9/2022	1.56	20.2	94.7	1.14	7.49	2.29 (J)	882
MW-11	5/9/2022	1.16	54.3	70.0	0.505	7.30	196	848
MW-11	11/9/2022	1.12	55.5	68.5	0.479	7.52	208	918
MW-701	1/27/2022	---	*42.9	---	---	**7.51	---	---
MW-701	5/9/2022	0.883	41.6	48.5	0.574	7.47	89.1	542
MW-701	7/15/2022	---	---	---	---	**7.43	*90.2	---
MW-701	8/17/2022	---	---	---	---	**7.52	*84.5	---
MW-701	11/9/2022	0.905	42.4	46.4	0.594	7.42	87.8	545
MW-702	5/9/2022	1.74	12.1	47.8	1.27	7.70	0.808 (J)	601
MW-702	11/9/2022	1.79	14.6	47.2	1.26	7.95	1.47 (J)	620
MW-703	5/9/2022	1.79	19.8	111	1.42	7.64	0.784 (J)	865
MW-703	11/9/2022	1.81	18.6	111	1.31	7.80	1.24 (J)	870
MW-704	5/9/2022	1.97	20.6	94.5	0.815	7.44	154	1110
MW-704	7/15/2022	---	---	*95.2	---	**7.45	---	---
MW-704	8/17/2022	---	---	*93.9	---	**7.39	---	---
MW-704	11/9/2022	2.02	22.0	91.1	0.742	7.66	163	1090
MW-705	5/9/2022	2.00	27.6	136	0.939	7.28	40.7	917
MW-705	11/9/2022	2.11	26.9	138	0.878	7.11	39.0	930
MW-706	1/27/2022	---	---	---	---	**7.43	*15.8	---
MW-706	3/3/2022	---	---	---	---	**7.64	*16.7	---
MW-706	5/9/2022	1.98	23.7	255	1.01	7.51	11.7	1190
MW-706	11/9/2022	2.08	23.2	250	0.923	7.24	12.7	1060
MW-707B	1/27/2022	---	*408	---	---	**6.75	*4890	---
MW-707B	5/9/2022	1.86	438	163	<1.50	6.72	5870	5460
MW-707B	7/15/2022	---	*399	---	*0.328	*6.73	*5390	---
MW-707B	8/17/2022	---	---	---	---	*6.75	*4440	---
MW-707B	11/9/2022	1.88	377	161	1.31 (J)	6.67	5060	6160
MW-708	1/27/2022	---	---	---	---	**7.49	*9.26	---
MW-708	5/9/2022	1.27	28.6	46.7	0.530	7.44	9.34	628
MW-708	11/9/2022	1.39	28.3	46.4	0.595	7.20	9.47	1590
TW-1	1/27/2022	---	---	---	---	**7.53	*62.2	---
TW-1	5/9/2022	1.37	24.3	41.2	0.355	7.73	72.9	951
TW-1	11/9/2022	1.42	23.8	40.3	0.377	7.36	72.2	908

* 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

S.U. - Standard Units

(J) - Reported concentration is below the laboratory reporting limit - concentration is estimated.

--- Not Sampled

Table 2
Upper AQC Impoundment
Detection Monitoring Field Measurements
Energry LaCygne 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-6	5/9/2022	7.34	1810	15.30	0.0	7	0.00	9.10	851.58
MW-6	11/9/2022	6.86	1870	16.00	0.0	-161	0.00	9.87	850.81
MW-7	5/9/2022	7.79	1470	14.33	0.0	15	0.00	6.34	849.32
MW-7	11/9/2022	7.49	1520	15.54	0.0	-207	0.46	7.30	848.36
MW-11	5/9/2022	7.30	3760	19.92	0.0	-169	0.00	0.60	876.38
MW-11	11/9/2022	7.52	1630	16.40	0.0	-100	0.00	3.00	873.98
MW-701	1/27/2022	**7.51	971	12.69	0.0	-56	0.00	10.76	874.47
MW-701	5/9/2022	7.47	1050	16.62	0.0	-120	5.53	7.69	877.54
MW-701	7/15/2022	**7.43	986	21.79	0.0	-27	0.24	11.45	873.78
MW-701	8/17/2022	**7.52	961	19.35	2.0	1	0.00	11.32	873.91
MW-701	11/9/2022	7.42	991	16.09	0.0	-37	0.27	11.74	873.49
MW-702	5/9/2022	7.70	1040	16.93	0.0	-21	0.00	18.66	864.51
MW-702	11/9/2022	7.95	1120	15.53	0.0	-36	2.46	20.60	862.57
MW-703	5/9/2022	7.64	1570	19.66	3.1	29	2.33	9.06	874.78
MW-703	11/9/2022	7.80	1560	17.03	0.0	-111	0.00	8.90	874.94
MW-704	5/9/2022	7.44	2000	21.68	1.2	47	7.28	13.21	869.96
MW-704	7/15/2022	**7.45	2050	23.69	0.0	118	0.89	13.58	869.59
MW-704	8/17/2022	**7.39	1970	19.88	0.0	96	0.00	15.18	867.99
MW-704	11/9/2022	7.66	2060	16.87	0.0	4	0.15	14.60	868.57
MW-705	5/9/2022	7.28	1670	15.84	0.0	-29	0.00	9.65	846.30
MW-705	11/9/2022	7.11	1690	16.47	0.0	-89	0.00	10.12	845.83
MW-706	1/27/2022	**7.43	2140	13.13	0.0	-63	0.00	8.87	845.41
MW-706	3/3/2022	**7.64	2250	14.35	10.3	-38	2.09	8.56	845.72
MW-706	5/9/2022	7.51	2090	16.56	0.0	-71	0.00	8.70	845.58
MW-706	11/9/2022	7.24	2080	16.88	9.6	-88	0.55	10.00	844.28
MW-707B	1/27/2022	**6.75	8020	13.79	25.7	44	0.00	7.80	851.00
MW-707B	5/9/2022	6.72	8200	17.98	8.7	-18	0.00	6.97	851.83
MW-707B	7/15/2022	*6.73	8210	19.66	18.6	65	0.00	7.95	850.85
MW-707B	8/17/2022	*6.75	8220	18.25	18.6	117	0.00	10.75	848.05
MW-707B	11/9/2022	6.67	7250	18.48	20.5	48	0.00	9.89	848.91
MW-708	1/27/2022	**7.49	1160	14.20	0.0	48	0.61	8.02	845.01
MW-708	5/9/2022	7.44	1120	16.87	0.0	52	0.00	7.46	845.57
MW-708	11/9/2022	7.20	1130	17.03	7.7	15	0.00	9.08	843.95
TW-1	1/27/2022	**7.53	1700	14.26	0.0	5	0.00	15.95	846.15
TW-1	5/9/2022	7.73	1670	17.54	0.0	62	0.00	16.72	845.38
TW-1	11/9/2022	7.36	1650	16.67	0.0	-30	1.44	17.91	844.19

* 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

***Depth to water measured in all monitoring wells within 24 hour period prior to the sampling event

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

APPENDIX C

ALTERNATIVE SOURCE DEMONSTRATIONS

- C1 CCR Groundwater Monitoring Alternative Source Demonstration Report November 2021 Groundwater Monitoring Event, Upper AQC Impoundment, La Cygne Generating Station (May 2022)
- C2 CCR Groundwater Monitoring Alternative Source Demonstration Report May 2022 Groundwater Monitoring Event, Upper AQC Impoundment, La Cygne Generating Station (December 2022)

APPENDIX C. 1

CCR Groundwater Monitoring Alternative Source Demonstration Report November 2021
Groundwater Monitoring Event, Upper AQC Impoundment, La Cygne Generating Station
(May 2022)

CCR GROUNDWATER MONITORING
ALTERNATIVE SOURCE DEMONSTRATION REPORT
NOVEMBER 2021 GROUNDWATER MONITORING
EVENT

UPPER AQC IMPOUNDMENT

La Cygne Generating Station
Energys Metro, Inc.
La Cygne, Kansas

SCS ENGINEERS

May 2022
File No. 27217233.22

8575 W. 110th Suite 100
Overland Park, KS 66210
913-749-0700

CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and licensed Professional Geologist in the State of Kansas, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the Upper AQC Impoundment at the La Cygne Generating Station. The Alternative Source Demonstration was prepared by me or under my direct supervision in accordance with generally accepted hydrogeological practices and the local standard of care.



John R. Rockhold, P.G.
SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Kansas, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the Upper AQC Impoundment at the La Cygne Generating Station. The Alternative Source Demonstration was prepared by me or under my direct supervision in accordance with generally accepted engineering practices and the local standard of care.



Douglas L. Doerr, P.E.
SCS Engineers

Table of Contents

Section	Page
CERTIFICATIONS	i
1 Regulatory Framework	1
2 Statistical Results.....	1
3 Alternative Source Demonstration.....	2
3.1 Box and Whiskers Plots	2
3.2 Time Series Plots	2
3.3 Piper Diagram Plots	3
4 Conclusion	3
5 General Comments	3

Appendices

Appendix A	Box and Whiskers Plots
Appendix B	Time Series Plots
Appendix C	Piper Diagram Plots and Analytical Results

1 REGULATORY FRAMEWORK

Certain owners or operators of Coal Combustion Residuals (CCR) units are required to complete groundwater monitoring activities to evaluate whether a release from the unit has occurred. Included in the activities is the completion of a statistical analysis of the groundwater quality data as prescribed in § 257.93(h) of the CCR Final Rule. If the initial analysis indicates a statistically significant increase (SSI) over background levels, the owner or operator may perform an alternative source demonstration (ASD). In accordance with § 257.94(e)(2), the owner or operator of the CCR unit may demonstrate that a source other than the CCR unit caused the 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. The owner or operator must complete the written demonstration within 90 days of detecting a SSI over background levels to include obtaining a certification from a qualified professional engineer verifying the accuracy of the information in the report. If a successful demonstration is completed within the 90-day period, the owner or operator of the CCR unit may continue with a detection monitoring program under § 257.94. If a successful demonstration is not completed within the 90-day period, the owner or operator of the CCR unit must initiate an assessment monitoring program as required under § 257.95. 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.

2 STATISTICAL RESULTS

Statistical analysis of monitoring data from the groundwater monitoring system for the Upper AQC Impoundment at the La Cygne 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 18, 2021. Review and validation of the results from the November 2021 Detection Monitoring Event was completed on January 5, 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. Two rounds of verification sampling were conducted for certain constituents on January 27, 2022 and March 3, 2022.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-706.

Constituent/Monitoring Well	*UPL	Observation November 18, 2021	1st Verification January 27, 2022	2nd Verification March 3, 2022
MW-706				
Sulfate	8.79	16.8	15.8	16.7

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified an SSI above the background prediction limit for sulfate at monitoring well MW-706.

3 ALTERNATIVE SOURCE DEMONSTRATION

An Alternative Source Demonstration is a means to provide supporting lines of evidence that something other than a release from a regulated CCR unit caused an SSI. For the above identified SSI for the Upper AQC Impoundment at the La Cygne Generating Station, there are multiple lines of supporting evidence to indicate they are not caused by a release from the Upper AQC Impoundment. Select multiple lines of supporting evidence are described as follows.

3.1 BOX AND WHISKERS PLOTS

A commonly accepted method to demonstrate and visualize the distribution of data in a given data set is to construct box and whiskers plots. The basic box plotted graphically locates the median, 25th and 75th percentiles of the data set; the "whiskers" extend to the minimum and maximum values of the data set. The range between the ends of a box plot represents the Interquartile Range, which can be used as an estimate of spread or variability. The mean is denoted by a "+".

When comparing multiple wells or well groups, box plots for each well can be lined up on the same axis to roughly compare the variability in each well. This may be used as an exploratory screening for the test of homogeneity of variance across multiple wells.

Box and whiskers plots were prepared for sulfate for upgradient wells MW-701, MW-702, and MW-703 and downgradient well MW-706. Although the sulfate SSI was only identified in downgradient well MW-706, the box and whiskers plots show that the concentration in MW-706 is below the sulfate range for upgradient well MW-701. In addition, there is significant variability of the sulfate concentrations between upgradient wells (e.g., MW-701 and MW702/MW-703). This demonstrates that a source other than the Upper AQC Impoundment caused the SSI above the background level for sulfate in MW-706, or that the SSI resulted from natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix A**.

3.2 TIME SERIES PLOTS

Time series plots provide a graphical method to view changes in data at a particular well (monitoring point) or wells over time. Time series plots display the variability in concentration levels over time and can be used to indicate possible outliers or data errors. More than one well can be compared on the same plot to look for differences between wells. Non-detect data is plotted as censored data at one-half of the laboratory reporting limit. Time series plots can also be used to examine the data for trends.

Time series plots for sulfate were prepared for the CCR monitoring system upgradient wells MW-701, MW-702, and MW-703 and downgradient well MW-706. Although the sulfate SSI was only identified in downgradient well MW-706, the time series plots show that the concentration in MW-706 is below the sulfate range for upgradient well MW-701. In addition, there is significant variability of the sulfate concentrations between upgradient wells (i.e., MW-701 and MW702/MW-703). This demonstrates that a source other than the Upper AQC Impoundment caused the SSI above the background level for sulfate in MW-706, or that the SSI resulted from natural variation in groundwater quality. Time series plots are provided in **Appendix B**.

3.3 PIPER DIAGRAM PLOTS

Piper diagrams are a form of tri-linear diagram, and a widely accepted method to provide a visual representation of the ion concentration of groundwater. Piper diagrams portray water compositions and facilitate the interpretation and presentation of chemical analyses. They may be used to visually compare the chemical composition of water quality across wells, and aid in determining whether the waters are similar or dis-similar, and can over time indicate whether the waters are mixing.

A piper diagram has two triangular plots on the right and left side of a 4-sided center field. The three major cations are plotted in the left triangle and anions in the right. Each of the three cation/anion variables, in milliequivalents, is divided by the sum of the three values, to produce a percent of total cation/anions. These percentages determine the location of the associated symbol. The data points in the center field are located by extending the points in the lower triangles to the point of intersection. In order for a piper diagram to be produced, the selected data file must contain the following constituents: Sodium (Na), Potassium (K), Calcium (Ca), Magnesium (Mg), Chloride (Cl), Sulfate (SO₄), Carbonate (CO₃), and Bicarbonate (HCO₃).

A piper diagram was generated for samples from upgradient wells MW-701, MW-702, and MW-703 and from monitoring well MW-706. The samples from MW-706 plot between the samples from upgradient wells MW-701 and MW-702/MW-703 indicating similar geochemical characteristics to upgradient wells or a combination of geochemical characteristics of upgradient wells. Additionally of note, the difference between the upgradient wells indicates that natural variability occurs between relatively closely spaced upgradient wells and is likely to occur across the site. This demonstrates that a source other than the Upper AQC Impoundment caused the SSI for MW-706, or that the SSI resulted from natural variation in groundwater quality. The piper diagram plots and analytical results are provided in **Appendix C**.

4 CONCLUSION

Our opinion is that a sufficient body of evidence is available and presented above to demonstrate that a source other than the Upper AQC Impoundment caused the SSIs for sulfate, or that the SSI resulted from natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the Upper AQC Impoundment may continue with the detection monitoring program under § 257.94.

5 GENERAL COMMENTS

This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. 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 Metro, Inc. for specific application to the La Cygne Generating Station. No warranties, express or implied, are intended or made.

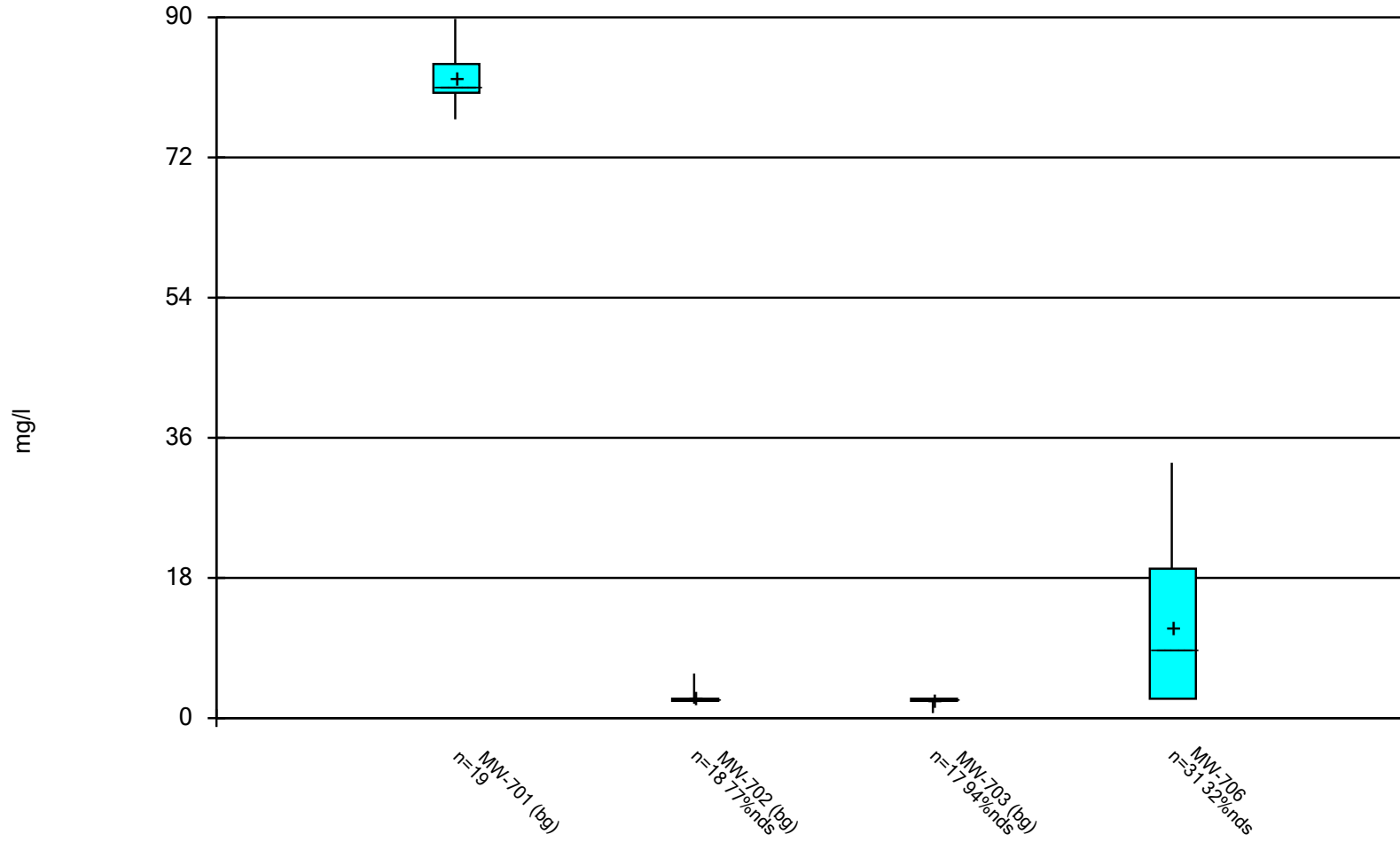
The signatures of the certifying registered geologist and professional engineer on this document represents that to the best of their knowledge, information, and belief in the exercise of their professional judgement in accordance with the standard of practice, it is their professional opinions that the aforementioned information is accurate as of the date of such signatures. Any opinion or decisions by them are made on the basis of their experience, qualifications, and professional

judgement and are not to be construed as warranties or guaranties. In addition, opinions relating to regulatory, environmental, geologic, geochemical and geotechnical conditions interpretations or other estimates are based on available data, and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

Appendix A

Box and Whiskers Plots

Box & Whiskers Plot



Constituent: SULFATE Analysis Run 5/18/2022 11:48 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Box & Whiskers Plot

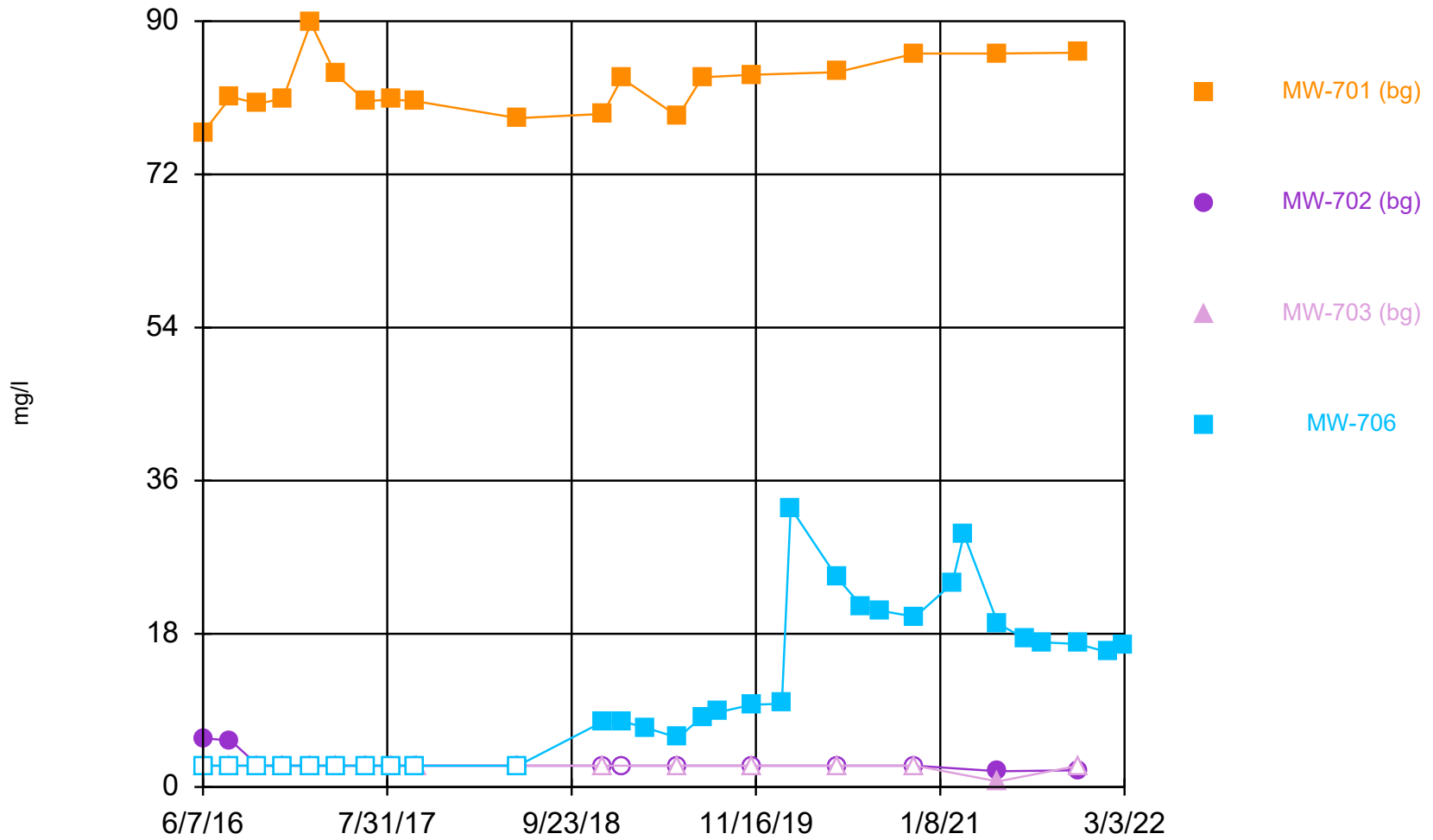
LaCygne Client: SCS Engineers Data: LaC GW Data Printed 5/18/2022, 11:49 AM

<u>Constituent</u>	<u>Well</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Std. Err.</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>%NDs</u>
SULFATE (mg/l)	MW-701 (bg)	19	82.34	3.272	0.7507	81.1	76.9	89.8	0
SULFATE (mg/l)	MW-702 (bg)	18	2.778	1.043	0.2459	2.5	1.85	5.73	77.78
SULFATE (mg/l)	MW-703 (bg)	17	2.392	0.447	0.1084	2.5	0.657	2.5	94.12
SULFATE (mg/l)	MW-706	31	11.79	9.082	1.631	8.79	2.5	32.8	32.26

Appendix B

Time Series Plots

Time Series



Constituent: SULFATE Analysis Run 5/18/2022 11:47 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Time Series

Constituent: SULFATE (mg/l) Analysis Run 5/18/2022 11:48 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

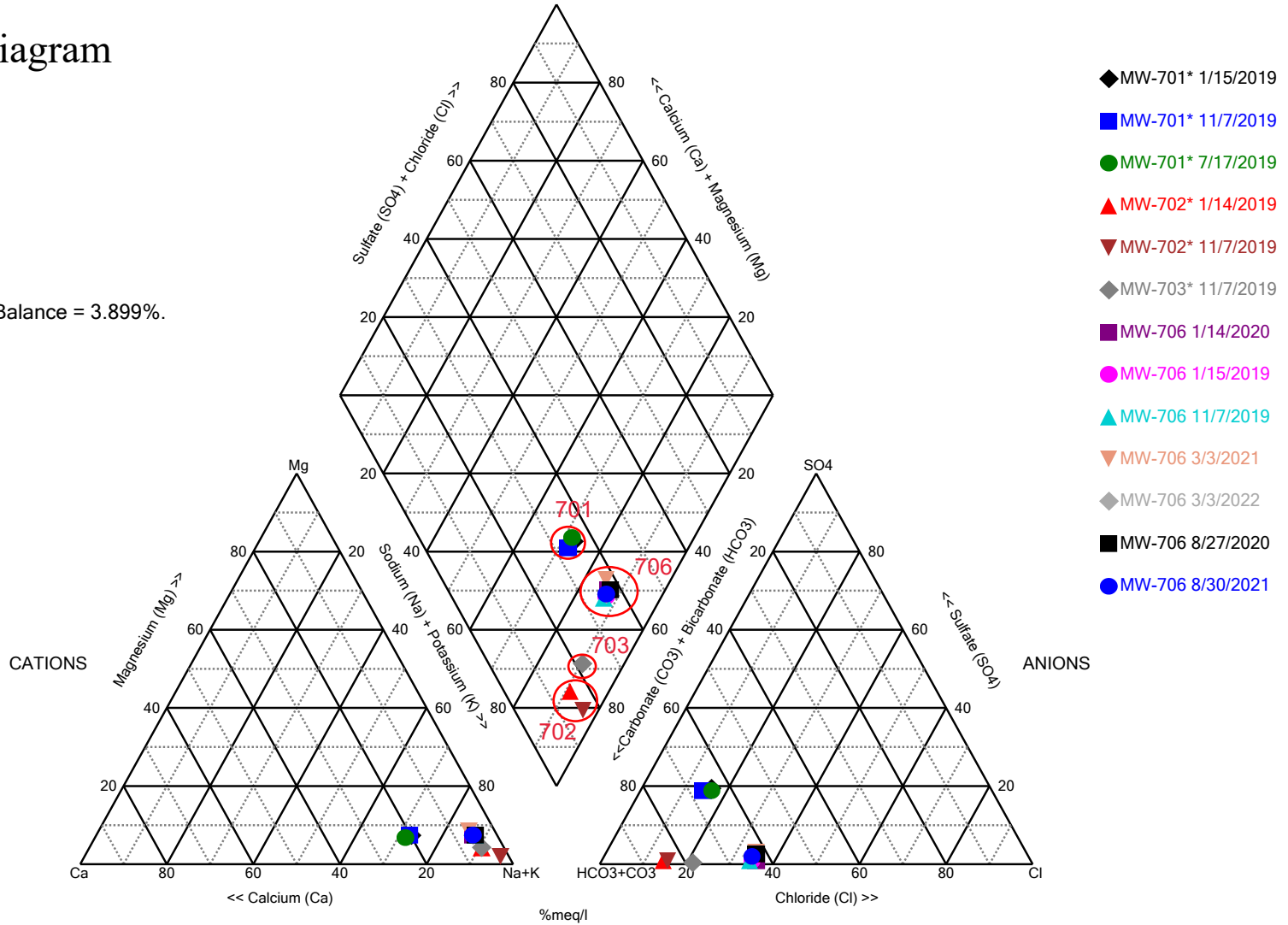
	MW-701 (bg)	MW-702 (bg)	MW-703 (bg)	MW-706
6/7/2016	76.9		<5	
6/8/2016		5.73		<5
8/9/2016	81.1	5.46	<5	<5
10/11/2016	80.3	<5	<5	<5
12/6/2016	80.9		<5	<5
12/8/2016		<5		
2/7/2017	89.8		<5	<5
2/8/2017		<5		
4/4/2017	83.8		<5	<5
4/5/2017		<5		
6/13/2017	80.6			<5
6/14/2017			<5	
6/15/2017		<5		
8/8/2017	80.8			
8/9/2017		<5		<5
8/10/2017			<5	
10/3/2017	80.6	<5		
10/4/2017				<5
10/5/2017			<5	
5/24/2018	78.6	<5	<5	<5
12/3/2018	79.1	<5	<5	
12/4/2018				7.69
1/14/2019		<5		
1/15/2019	83.3			7.73
3/11/2019				6.96
5/23/2019	78.8	<5	<5	5.78
7/17/2019	83.4			8.27
8/23/2019				8.79
11/7/2019	83.7	<5	<5	9.68
1/14/2020				9.78
2/3/2020				32.8
5/19/2020	84	<5	<5	24.6
7/13/2020				21.3
8/27/2020				20.7
11/12/2020	86.2	<5	<5	20
2/4/2021				23.9
3/3/2021				29.7
5/19/2021	86.2	1.85	0.657	19.2
7/21/2021				17.4
8/30/2021				17
11/18/2021	86.3	1.97	<5	16.8
1/27/2022				15.8
3/3/2022				16.7

Appendix C

Piper Diagram Plots and Analytical Results

Piper Diagram

Cation-Anion Balance = 3.899%.



Analysis Run 5/18/2022 11:51 AM View: Upper AQC Piper Data

LaCygne Client: SCS Engineers Data: LaC GW Data

Piper Diagram

Analysis Run 5/18/2022 12:01 PM View: Upper AQC Piper Data

LaCygne Client: SCS Engineers Data: LaC GW Data

Totals (ppm)	Na	K	Ca	Mg	Cl	SO4	HCO3	CO3
MW-701* 1/15/2019	169	3.11	40.2	8.79	47.9	83.3	336	10
MW-701* 7/17/2019	172	2.91	45	8.71	50.7	83.4	349	10
MW-701* 11/7/2019	163	2.85	40.4	8.6	46.2	83.7	369	10
MW-702* 1/14/2019	230	3.14	11.2	5.24	43	2.5	461	10
MW-702* 11/7/2019	167	2.58	2.73	1.7	40.7	2.5	249	87.9
MW-703* 11/7/2019	339	3.53	17.6	8.07	111	2.5	725	10
MW-706 1/15/2019	442	6.52	24.7	19.5	238	7.73	769	10
MW-706 11/7/2019	427	6.26	22.5	19	240	9.68	806	10
MW-706 1/14/2020	422	6.18	24.4	19.3	247	9.78	767	10
MW-706 8/27/2020	437	6.25	23	19.4	238	20.7	751	10
MW-706 3/3/2021	412	6.65	25.7	21.6	228	29.7	716	10
MW-706 8/30/2021	428	6.29	23.8	19.4	236	17	780	10
MW-706 3/3/2022	422	6.24	22.7	19.4	241	16.7	789	10

APPENDIX C.2

CCR Groundwater Monitoring Alternative Source Demonstration Report May 2022
Groundwater Monitoring Event, Upper AQC Impoundment, La Cygne Generating Station
(December 2022)

CCR GROUNDWATER MONITORING
ALTERNATIVE SOURCE DEMONSTRATION REPORT
MAY 2022 GROUNDWATER MONITORING EVENT

UPPER AQC IMPOUNDMENT

La Cygne Generating Station
Energys Metro, Inc.
La Cygne, Kansas

SCS ENGINEERS

December 2022
File No. 27217233.22

8575 W. 110th Suite 100
Overland Park, KS 66210
913-749-0700

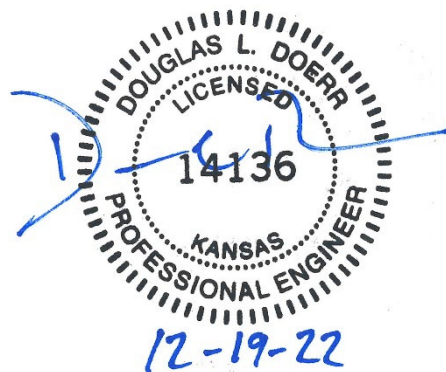
CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and licensed Professional Geologist in the State of Kansas, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the Upper AQC Impoundment at the La Cygne Generating Station. The Alternative Source Demonstration was prepared by me or under my direct supervision in accordance with generally accepted hydrogeological practices and the local standard of care.



John R. Rockhold, P.G.
SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Kansas, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the Upper AQC Impoundment at the La Cygne Generating Station. The Alternative Source Demonstration was prepared by me or under my direct supervision in accordance with generally accepted engineering practices and the local standard of care.



Douglas L. Doerr, P.E.
SCS Engineers

Table of Contents

Section	Page
CERTIFICATIONS	i
1 Regulatory Framework	1
2 Statistical Results.....	1
3 Alternative Source Demonstration.....	2
3.1 Box and Whiskers Plots	2
3.2 Time Series Plots	2
3.3 Piper Diagram Plots	2
4 ConclusionS	3
5 General Comments	3

Appendices

Appendix A	Box and Whiskers Plots
Appendix B	Time Series Plots
Appendix C	Piper Diagram Plots and Analytical Results

1 REGULATORY FRAMEWORK

Certain owners or operators of Coal Combustion Residuals (CCR) units are required to complete groundwater monitoring activities to evaluate whether a release from the unit has occurred. Included in the activities is the completion of a statistical analysis of the groundwater quality data as prescribed in § 257.93(h) of the CCR Final Rule. If the initial analysis indicates a statistically significant increase (SSI) over background levels, the owner or operator may perform an alternative source demonstration (ASD). In accordance with § 257.94(e)(2), the owner or operator of the CCR unit may demonstrate that a source other than the CCR unit caused the 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. The owner or operator must complete the written demonstration within 90 days of detecting an SSI over background levels to include obtaining a certification from a qualified professional engineer verifying the accuracy of the information in the report. If a successful demonstration is completed within the 90-day period, the owner or operator of the CCR unit may continue with a detection monitoring program under § 257.94. If a successful demonstration is not completed within the 90-day period, the owner or operator of the CCR unit must initiate an assessment monitoring program as required under § 257.95. 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.

2 STATISTICAL RESULTS

Statistical analysis of monitoring data from the groundwater monitoring system for the Upper AQC Impoundment at the La Cygne 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 May 9, 2022. Review and validation of the results from the May 2022 Detection Monitoring Event was completed on July 1, 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. Two rounds of verification sampling were conducted for certain constituents on July 15, 2022 and August 17, 2022.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-704.

Constituent/Monitoring Well	*UPL	Observation May 9, 2022	1st Verification July 15, 2022	2nd Verification August 17, 2022
MW-704				
Chloride	92.57	94.5	95.2	93.9

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified an SSI above the background prediction limit for chloride at monitoring well MW-704.

3 ALTERNATIVE SOURCE DEMONSTRATION

An Alternative Source Demonstration is a means to provide supporting lines of evidence that something other than a release from a regulated CCR unit caused an SSI. For the above identified SSI for the Upper AQC Impoundment at the La Cygne Generating Station, there are multiple lines of supporting evidence to indicate they are not caused by a release from the Upper AQC Impoundment. Select multiple lines of supporting evidence are described as follows.

3.1 BOX AND WHISKERS PLOTS

A commonly accepted method to demonstrate and visualize the distribution of data in a given data set is to construct box and whiskers plots. The basic box plotted graphically locates the median, 25th and 75th percentiles of the data set; the "whiskers" extend to the minimum and maximum values of the data set. The range between the ends of a box plot represents the Interquartile Range, which can be used as an estimate of spread or variability. The mean is denoted by a "+".

When comparing multiple wells or well groups, box plots for each well can be lined up on the same axis to roughly compare the variability in each well. This may be used as an exploratory screening for the test of homogeneity of variance across multiple wells.

Box and whiskers plots were prepared for chloride for upgradient wells MW-701 and MW-703 and downgradient well MW-704. The box and whiskers plots show that the concentration in MW-704 is below the typical chloride concentrations in for upgradient well MW-703. In addition, there is significant variability of the chloride concentrations between upgradient wells (e.g., MW-701 and MW-703). This demonstrates that a source other than the Upper AQC Impoundment caused the SSI above the background level for chloride in MW-704, or that the SSI resulted from natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix A**.

3.2 TIME SERIES PLOTS

Time series plots provide a graphical method to view changes in data at a particular well (monitoring point) or wells over time. Time series plots display the variability in concentration levels over time and can be used to indicate possible outliers or data errors. More than one well can be compared on the same plot to look for differences between wells. Non-detect data is plotted as censored data at one-half of the laboratory reporting limit. Time series plots can also be used to examine the data for trends.

Time series plots for chloride were prepared for the CCR monitoring system upgradient wells MW-701 and MW-703 and downgradient well MW-704. The time series plots show that the concentration in MW-704 is below the historical chloride concentrations for upgradient well MW-703. In addition, there is significant variability of the chloride concentrations between upgradient wells (i.e., MW-701 and MW-703). This demonstrates that a source other than the Upper AQC Impoundment caused the SSI above the background level for chloride in MW-704, or that the SSI resulted from natural variation in groundwater quality. Time series plots are provided in **Appendix B**.

3.3 PIPER DIAGRAM PLOTS

Piper diagrams are a form of tri-linear diagram, and a widely accepted method to provide a visual representation of the ion concentration of groundwater. Piper diagrams portray water compositions and facilitate the interpretation and presentation of chemical analyses. They may be used to visually

compare the chemical composition of water quality across wells, and aid in determining whether the waters are similar or dis-similar, and can over time indicate whether the waters are mixing.

A piper diagram has two triangular plots on the right and left side of a 4-sided center field. The three major cations are plotted in the left triangle and anions in the right. Each of the three cation/anion variables, in milliequivalents, is divided by the sum of the three values, to produce a percent of total cation/anions. These percentages determine the location of the associated symbol. The data points in the center field are located by extending the points in the lower triangles to the point of intersection. In order for a piper diagram to be produced, the selected data file must contain the following constituents: Sodium (Na), Potassium (K), Calcium (Ca), Magnesium (Mg), Chloride (Cl), Sulfate (SO₄), Carbonate (CO₃), and Bicarbonate (HCO₃).

A piper diagram was generated for samples from upgradient wells MW-701 and MW-703 and downgradient well MW-704. The samples from MW-704 plot between the samples from upgradient wells MW-701 and MW-703 indicating similar geochemical characteristics to upgradient wells or a combination of geochemical characteristics of upgradient wells. Additionally of note, the difference between the upgradient wells indicates that natural variability occurs between relatively closely spaced upgradient wells and is likely to occur across the site. This demonstrates that a source other than the Upper AQC Impoundment caused the SSI for MW-704, or that the SSI resulted from natural variation in groundwater quality. The piper diagram plots and analytical results are provided in **Appendix C**.

4 CONCLUSIONS

Our opinion is that a sufficient body of evidence is available and presented above to demonstrate that a source other than the Upper AQC Impoundment caused the SSIs for chloride, or that the SSI resulted from natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the Upper AQC Impoundment may continue with the detection monitoring program under § 257.94.

5 GENERAL COMMENTS

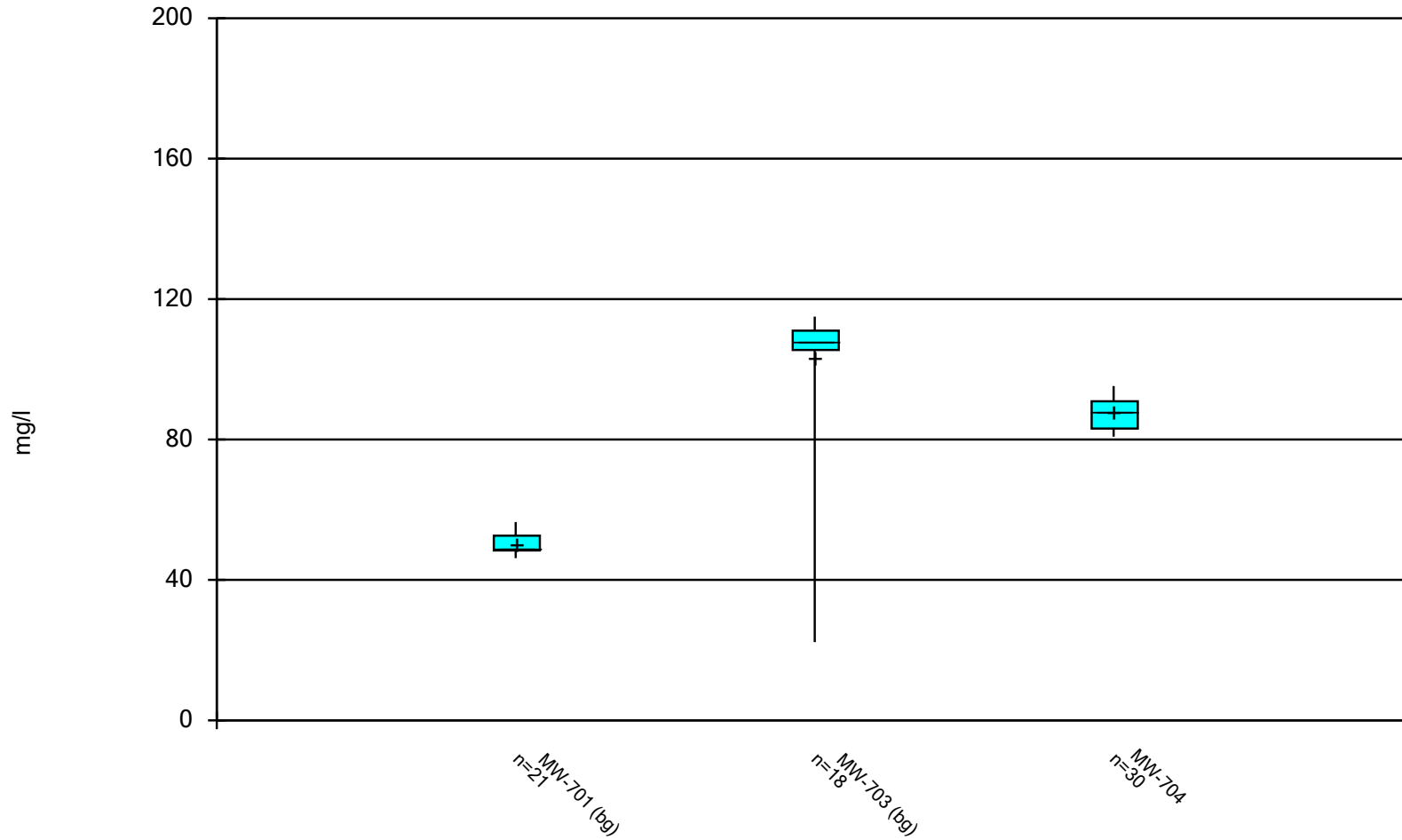
This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. Please note that SCS Engineers does not warrant the work of regulatory agencies or other third parties supplying information used in the assimilation of this report. 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 Metro, Inc. for specific application to the La Cygne Generating Station. No warranties, express or implied, are intended or made.

The signatures of the certifying registered geologist and professional engineer on this document represents that to the best of their knowledge, information, and belief in the exercise of their professional judgement in accordance with the standard of practice, it is their professional opinions that the aforementioned information is accurate as of the date of such signatures. Any opinion or decisions by them are made on the basis of their experience, qualifications, and professional judgement and are not to be construed as warranties or guaranties. In addition, opinions relating to regulatory, environmental, geologic, geochemical and geotechnical conditions interpretations or other estimates are based on available data, and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

Appendix A

Box and Whiskers Plots

Box & Whiskers Plot



Constituent: CHLORIDE Analysis Run 11/29/2022 8:50 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Box & Whiskers Plot

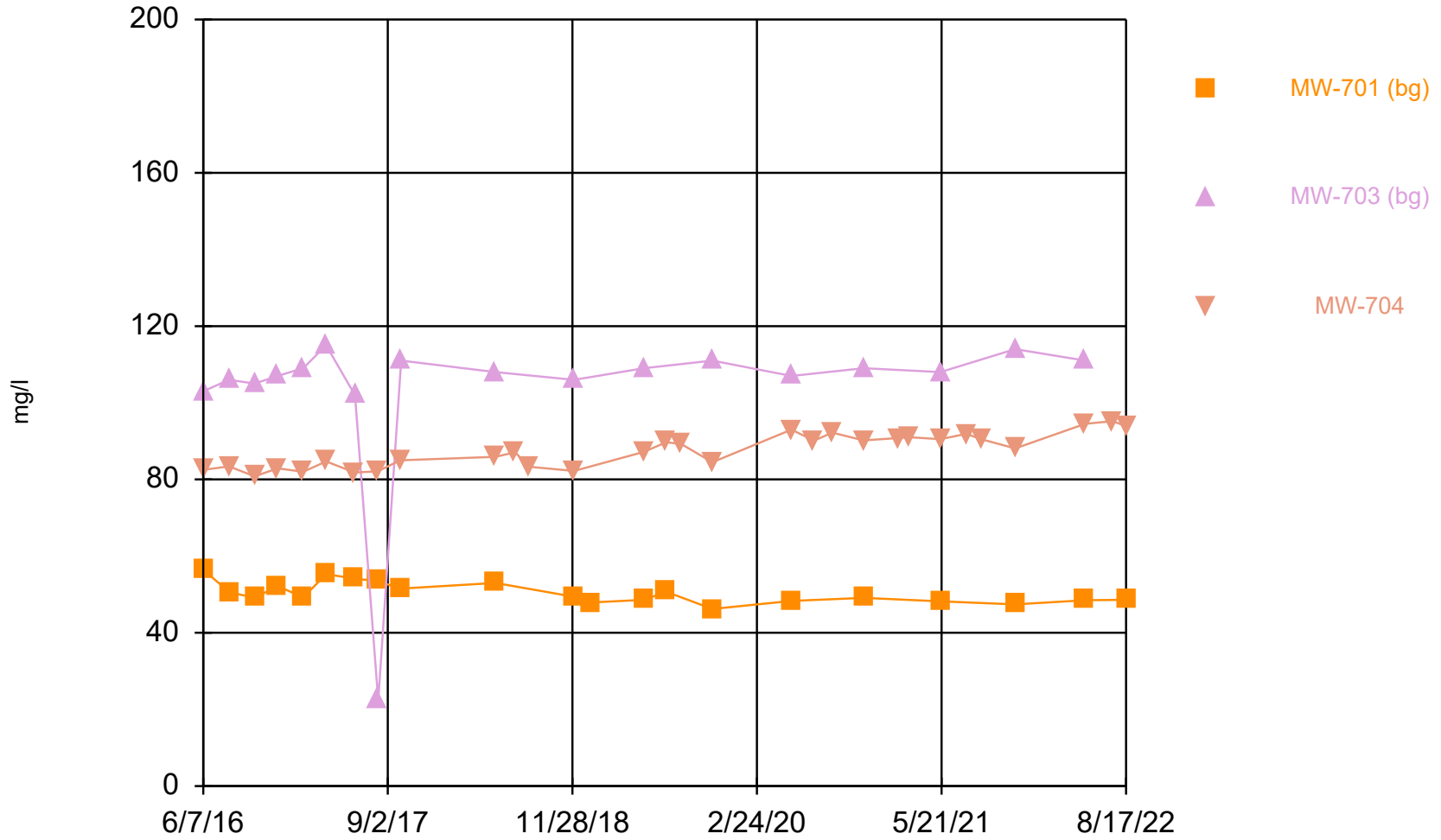
LaCygne Client: SCS Engineers Data: LaC GW Data Printed 11/29/2022, 8:50 AM

<u>Constituent</u>	<u>Well</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Std. Err.</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>%NDs</u>
CHLORIDE (mg/l)	MW-701 (bg)	21	50.38	2.774	0.6053	49.2	46.2	56.5	0
CHLORIDE (mg/l)	MW-703 (bg)	18	103.5	20.55	4.843	108	22.3	115	0
CHLORIDE (mg/l)	MW-704	30	87.54	4.375	0.7987	87.65	80.8	95.2	0

Appendix B

Time Series Plots

Time Series



Constituent: CHLORIDE Analysis Run 11/29/2022 8:47 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Time Series

Constituent: CHLORIDE (mg/l) Analysis Run 11/29/2022 8:49 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

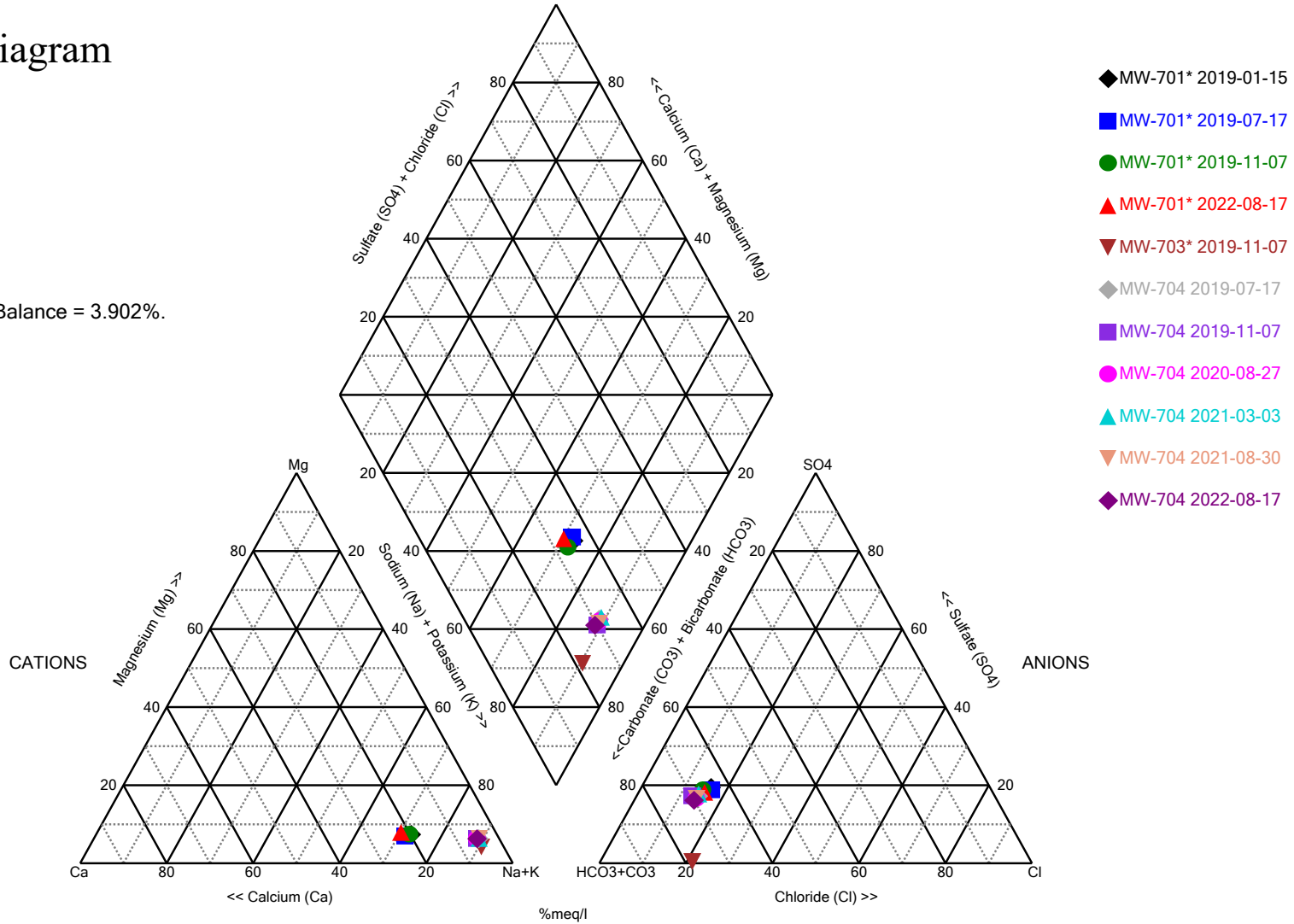
	MW-701 (bg)	MW-703 (bg)	MW-704
6/7/2016	56.5	103	82.5
8/9/2016	50.6	106	83.4
10/11/2016	49.1	105	80.8
12/6/2016	52.2	107	82.9
2/7/2017	49.2	109	82
4/4/2017	55.3	115	84.7
6/13/2017	54.1		81.8
6/14/2017		102	
8/8/2017	53.5		82.1
8/10/2017		22.3	
10/3/2017	51.5		85
10/5/2017		111	
5/24/2018	53	108	85.9
7/11/2018			87.1
8/16/2018			83.3
12/3/2018	49.4	106	82.2
1/15/2019	47.9		
5/23/2019	48.6	109	87.2
7/17/2019	50.7		89.7
8/23/2019			89.2
11/7/2019	46.2	111	84.5
5/19/2020	48.3	107	93
7/13/2020			90.1
8/27/2020			92.2
11/12/2020	49.1	109	90.2
2/4/2021			90.8
3/3/2021			91
5/19/2021	48.2	108	90.5
7/21/2021			91.9
8/30/2021			90.4
11/18/2021	47.4	114	88.1
5/9/2022	48.5	111	94.5
7/15/2022			95.2
8/17/2022	48.6		93.9

Appendix C

Piper Diagram Plots and Analytical Results

Piper Diagram

Cation-Anion Balance = 3.902%.



Analysis Run 11/29/2022 9:00 AM View: Upper AQC Piper Data

LaCygne Client: SCS Engineers Data: LaC GW Data

Piper Diagram

Analysis Run 11/29/2022 9:01 AM View: Upper AQC Piper Data

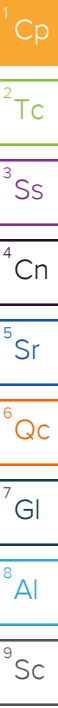
LaCygne Client: SCS Engineers Data: LaC GW Data

Totals (ppm)	Na	K	Ca	Mg	Cl	SO4	HCO3	CO3
MW-701* 2019-01-15	169	3.11	40.2	8.79	47.9	83.3	336	10
MW-701* 2019-07-17	172	2.91	45	8.71	50.7	83.4	349	10
MW-701* 2019-11-07	163	2.85	40.4	8.6	46.2	83.7	369	10
MW-701* 2022-08-17	153	3.23	42	8.91	48.6	84.5	375	10
MW-703* 2019-11-07	339	3.53	17.6	8.07	111	2.5	725	10
MW-704 2019-07-17	442	5.85	21.5	15.8	89.7	156	790	10
MW-704 2019-11-07	429	5.47	21	15.5	84.5	163	844	10
MW-704 2020-08-27	444	5.51	21.8	16.1	92.2	150	803	10
MW-704 2021-03-03	434	5.6	20.7	15.7	91	164	791	10
MW-704 2021-08-30	432	5.39	20.8	15.4	90.4	154	816	10
MW-704 2022-08-17	405	5.63	19.8	15.6	93.9	154	869	10

APPENDIX D

LABORATORY ANALYTICAL REPORTS

- January 2022 – First verification sampling for the Fall 2021 detection monitoring event.
- March 2022 – Second verification sampling for the Fall 2021 detection monitoring event.
- May 2022 – Spring 2022 semiannual detection monitoring sampling event.
- July 2022 – First verification sampling for the Spring 2022 detection monitoring sampling event.
- August 2022 – Second verification sampling for Spring 2022 detection monitoring sampling event.
- November 2022 - Fall 2022 semiannual detection monitoring sampling event.



SCS Engineers - KS

Sample Delivery Group: L1455635
Samples Received: 01/28/2022
Project Number: 27217233.21 - J
Description: Evergy - LaCygne Generating Station

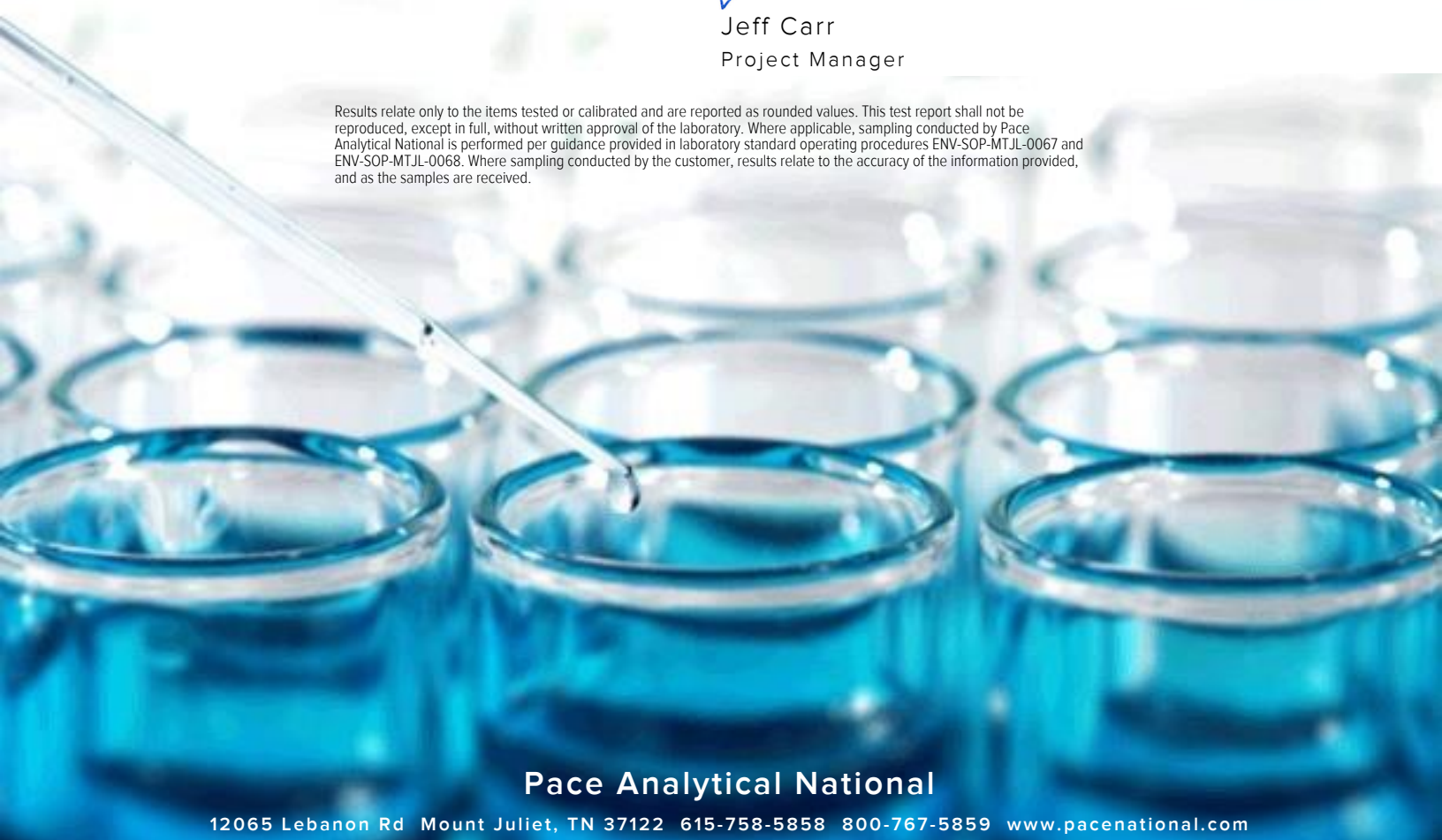
Report To: Jason Franks
8575 West 110th Street
Suite 100
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
Project Manager










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



Pace Analytical National

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

TABLE OF CONTENTS

Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	4	
Sr: Sample Results	5	
MW-701 L1455635-01	5	
MW-706 L1455635-02	6	
MW-707B L1455635-03	7	
DUPLICATE U L1455635-04	8	
MW-708 L1455635-05	9	
TW-1 L1455635-06	10	
Qc: Quality Control Summary	11	
Wet Chemistry by Method 9056A	11	
Metals (ICP) by Method 6010D	13	
Gl: Glossary of Terms	14	
Al: Accreditations & Locations	15	
Sc: Sample Chain of Custody	16	

SAMPLE SUMMARY

MW-701 L1455635-01 GW

Collected by Jason R. Francis Collected date/time 01/27/22 10:05 Received date/time 01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG181132	1	02/01/22 20:45	02/03/22 10:32	KMG	Mt. Juliet, TN



MW-706 L1455635-02 GW

Collected by Jason R. Francis Collected date/time 01/27/22 11:55 Received date/time 01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1809961	1	01/29/22 15:14	01/29/22 15:14	KEG	Mt. Juliet, TN

MW-707B L1455635-03 GW

Collected by Jason R. Francis Collected date/time 01/27/22 13:05 Received date/time 01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1809961	100	01/29/22 15:29	01/29/22 15:29	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG181132	1	02/01/22 20:45	02/03/22 10:00	KMG	Mt. Juliet, TN

DUPLICATE U L1455635-04 GW

Collected by Jason R. Francis Collected date/time 01/27/22 13:05 Received date/time 01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1809961	100	01/29/22 16:14	01/29/22 16:14	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG181132	1	02/01/22 20:45	02/03/22 10:35	KMG	Mt. Juliet, TN

MW-708 L1455635-05 GW

Collected by Jason R. Francis Collected date/time 01/27/22 13:40 Received date/time 01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1811233	1	02/01/22 15:17	02/01/22 15:17	LBR	Mt. Juliet, TN

TW-1 L1455635-06 GW

Collected by Jason R. Francis Collected date/time 01/27/22 12:30 Received date/time 01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1809961	10	01/29/22 17:14	01/29/22 17:14	KEG	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	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	42900		79.3	1000	1	02/03/2022 10:32	WG1811132

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	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	15800		594	5000	1	01/29/2022 15:14	WG1809961

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	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	4890000	<u>V</u>	59400	500000	100	01/29/2022 15:29	WG1809961

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	408000	<u>O1V</u>	79.3	1000	1	02/03/2022 10:00	WG1811132

- 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	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	5350000		59400	500000	100	01/29/2022 16:14	WG1809961

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	401000		79.3	1000	1	02/03/2022 10:35	WG1811132

- 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	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	9260		594	5000	1	02/01/2022 15:17	WG1811233

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

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	62200		5940	50000	10	01/29/2022 17:14	WG1809961

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

Method Blank (MB)

(MB) R3755343-1 01/29/22 10:13

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1455625-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1455625-01 01/29/22 12:30 • (DUP) R3755343-3 01/29/22 12:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	67200	67200	1	0.0350		15

L1455811-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1455811-01 01/29/22 17:59 • (DUP) R3755343-8 01/29/22 18:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	27400	27400	1	0.226		15

Laboratory Control Sample (LCS)

(LCS) R3755343-2 01/29/22 10:27

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Sulfate	40000	40500	101	80.0-120	

L1455635-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1455635-03 01/29/22 15:29 • (MS) R3755343-6 01/29/22 15:44 • (MSD) R3755343-7 01/29/22 15:59

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	4890000	4970000	4720000	160	0.000	100	80.0-120	V	V	5.20	15

L1455811-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1455811-05 01/29/22 19:13 • (MS) R3755343-9 01/29/22 19:58 • (MSD) R3755343-10 01/29/22 20:13

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	1280	52100	52200	102	102	1	80.0-120			0.291	15

Method Blank (MB)

(MB) R3756085-1 02/01/22 09:35

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1456441-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1456441-01 02/01/22 11:49 • (DUP) R3756085-3 02/01/22 12:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	19500	19500	1	0.0385		15

L1455625-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1455625-05 02/01/22 14:51 • (DUP) R3756085-6 02/01/22 15:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	30300	30300	1	0.184		15

Laboratory Control Sample (LCS)

(LCS) R3756085-2 02/01/22 09:48

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Sulfate	40000	39700	99.2	80.0-120	

L1456441-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1456441-01 02/01/22 11:49 • (MS) R3756085-4 02/01/22 12:14 • (MSD) R3756085-5 02/01/22 12:27

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	19500	67600	68100	96.2	97.3	1	80.0-120			0.820	15

L1456036-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1456036-05 02/01/22 16:21 • (MS) R3756085-7 02/01/22 16:34 • (MSD) R3756085-8 02/01/22 16:47

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	379000	405000	408000	53.2	59.7	10	80.0-120	V	V	0.798	15

Method Blank (MB)

(MB) R3756622-1 02/03/22 09:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Calcium	U		79.3	1000

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3756622-2 02/03/22 09:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	10000	9740	97.4	80.0-120	

4 Cn

5 Sr

L1455635-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1455635-03 02/03/22 10:00 • (MS) R3756622-4 02/03/22 10:06 • (MSD) R3756622-5 02/03/22 10:09

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 %
Calcium	10000	408000	410000	405000	17.4	0.000	1	75.0-125	<u>V</u>	<u>V</u>	1.32	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
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.

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 West 110th Street
 Suite 100
 Overland Park, KS 66210

Billing Information:
 Accounts Payable
 8575 W. 110th Street
 Suite 100
 Overland Park, KS 66210

Report to: **Jason Franks**

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

Project Description: **Evergy - LaCygne Generating Station**

City/State Collected: **LA Cygne KS**

Please Circle: **PT MT CT ET**

Phone: **913-681-0030**

Client Project #: **27217233.21 - J**

Lab Project #: **AQUAOPKS-LACYGNE**

Chain of Custody Page **1** of **1**

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>

Collected by (Print): **JASON FRANKS**

Collected by (Signature): *[Signature]*

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

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

Date Results Needed

No. of Cntrs

SDG # **U455635**

G089

Account: **AQUAOPKS**

Template: **T136276**

Prelogin: **P900496**

PM: **206 - Jeff Carr**

PB:

Shipped Via:

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Calcium - 6010 250mlHDPE-HNO3	Sulfate 125mlHDPE-NoPres									
MW-701	GRAB	GW	-	01/27/22	1005	1	X										01
MW-706		GW	-		1155	1		X									02
MW-707B		GW	-		1305	2	X	X									03
MW-707B MS/MSD		GW	-		1305	2	X	X									04
DUPLICATE U		GW	-		1305	2	X	X									05
MW-708		GW	-		1340	1		X									06
TW-1		GW	-		1230	1		X									07

* 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 # **5300 4291 1325**

Relinquished by: (Signature) *[Signature]* Date: **01/27/22** Time: **1600**

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

Temp: **MSAB 1.5 + 0 = 1.5** °C Bottles Received: **10**

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

Received for lab by: (Signature) *[Signature]* Date: **1/28/22** Time: **0945**

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

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

SCS Engineers - KS

Sample Delivery Group: L1468117
Samples Received: 03/04/2022
Project Number: 27217233.21 - J
Description: Evergy - LaCygne Generating Station
Site: LACYGNE ENERGY
Report To: Jason Franks
8575 West 110th Street
Suite 100
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	4	
Sr: Sample Results	5	
MW-706 L1468117-01	5	
DUPLICATE U L1468117-02	6	
Qc: Quality Control Summary	7	
Wet Chemistry by Method 9056A	7	
Gl: Glossary of Terms	8	
Al: Accreditations & Locations	9	
Sc: Sample Chain of Custody	10	

SAMPLE SUMMARY

MW-706 L1468117-01 GW

Collected by Britta Coleman Collected date/time 03/03/22 11:40 Received date/time 03/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1828517	1	03/08/22 03:13	03/08/22 03:13	LBR	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

DUPLICATE U L1468117-02 GW

Collected by Britta Coleman Collected date/time 03/03/22 00:00 Received date/time 03/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1828517	1	03/08/22 04:00	03/08/22 04:00	LBR	Mt. Juliet, TN

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

CASE NARRATIVE

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



Jeff Carr
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	16700		594	5000	1	03/08/2022 03:13	WG1828517

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

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	16700		594	5000	1	03/08/2022 04:00	WG1828517

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

Method Blank (MB)

(MB) R3767440-1 03/07/22 20:27

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

¹Cp

²Tc

³Ss

L1468117-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1468117-02 03/08/22 04:00 • (DUP) R3767440-6 03/08/22 04:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	16700	16600	1	0.432		15

⁴Cn

⁵Sr

Laboratory Control Sample (LCS)

(LCS) R3767440-2 03/07/22 20:42

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Sulfate	40000	41800	105	80.0-120	

⁶Qc

⁷Gl

⁸Al

L1468117-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468117-01 03/08/22 03:13 • (MS) R3767440-4 03/08/22 03:29 • (MSD) R3767440-5 03/08/22 03:44

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	16700	63400	63400	93.4	93.4	1	80.0-120			0.0596	15

⁹Sc

L1468174-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468174-01 03/08/22 06:03 • (MS) R3767440-7 03/08/22 06:18 • (MSD) R3767440-8 03/08/22 06:34

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	90200	135000	135000	89.3	89.4	1	80.0-120	E	E	0.0266	15

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier Description

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

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

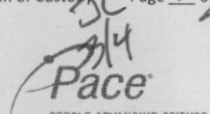
⁸ Al

⁹ Sc

Company Name/Address:
SCS Engineers - KS
 8575 West 110th Street
 Suite 100
 Overland Park. KS 66210

Billing Information:
Accounts Payable
 8575 W. 110th Street
 Suite 100
 Overland Park, KS 66210

Pres Chk																				
-------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Chain of Custody Page 1 of 31

 PEOPLE ADVANCING SCIENCE
MT JULIET, TN

Report to:
Jason Franks

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

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>

Project Description:
Evergy - LaCygne Generating Station

City/State Collected: **La Cygne, KS**

Please Circle:
 PT MT OT ET

Phone: **913-681-0030**

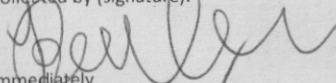
Client Project #
27217233.21 - J

Lab Project #
AQUAOPKS-LACYGNE

Collected by (print):
Brian Coleman

Site/Facility ID #
La Cygne Energy

P.O. #
 Quote #

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

Date Results Needed
TTD

Immediately Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs															
MW-706	Grab	GW	-	3/3/22	1140	1	X														
MW-706 MS/MSD	Grab	GW	-	3/3/22	1150	1	X														
DUPLICATE U	Grab	GW	-	3/3/22		1	X														

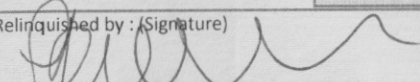
Sulfate 125mIHDPPE-NoPres

SDG # **1408117**
H074
 Acctnum: **AQUAOPKS**
 Template: **T136276**
 Prelogin: **P908212**
 PM: **206 - Jeff Carr**
 PB:
 Shipped Via:

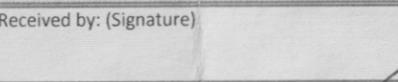
* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other _____

Remarks:
 pH _____ Temp _____
 Flow _____ Other _____
 Samples returned via:
 UPS FedEx Courier _____
 Tracking # _____

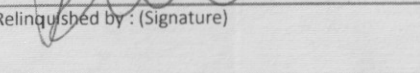
Sample Receipt Checklist
 COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N
 RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)


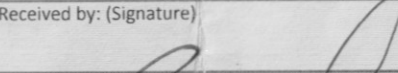
Date: **3/3/22** Time: **1430**

Received by: (Signature)


Trip Blank Received: Yes / No
 HCL / MeOH
 TBR

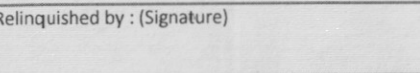
Relinquished by: (Signature)


Date: _____ Time: _____

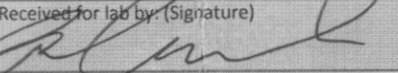
Received by: (Signature)


Temp: **1.4** °C Bottles Received: **3**

If preservation required by Login: Date/Time

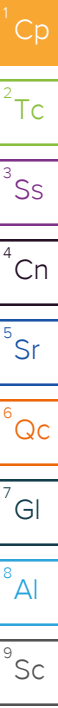
Relinquished by: (Signature)


Date: _____ Time: _____

Received for lab by: (Signature)


Date: **3/4/22** Time: **0930**

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



SCS Engineers - KS

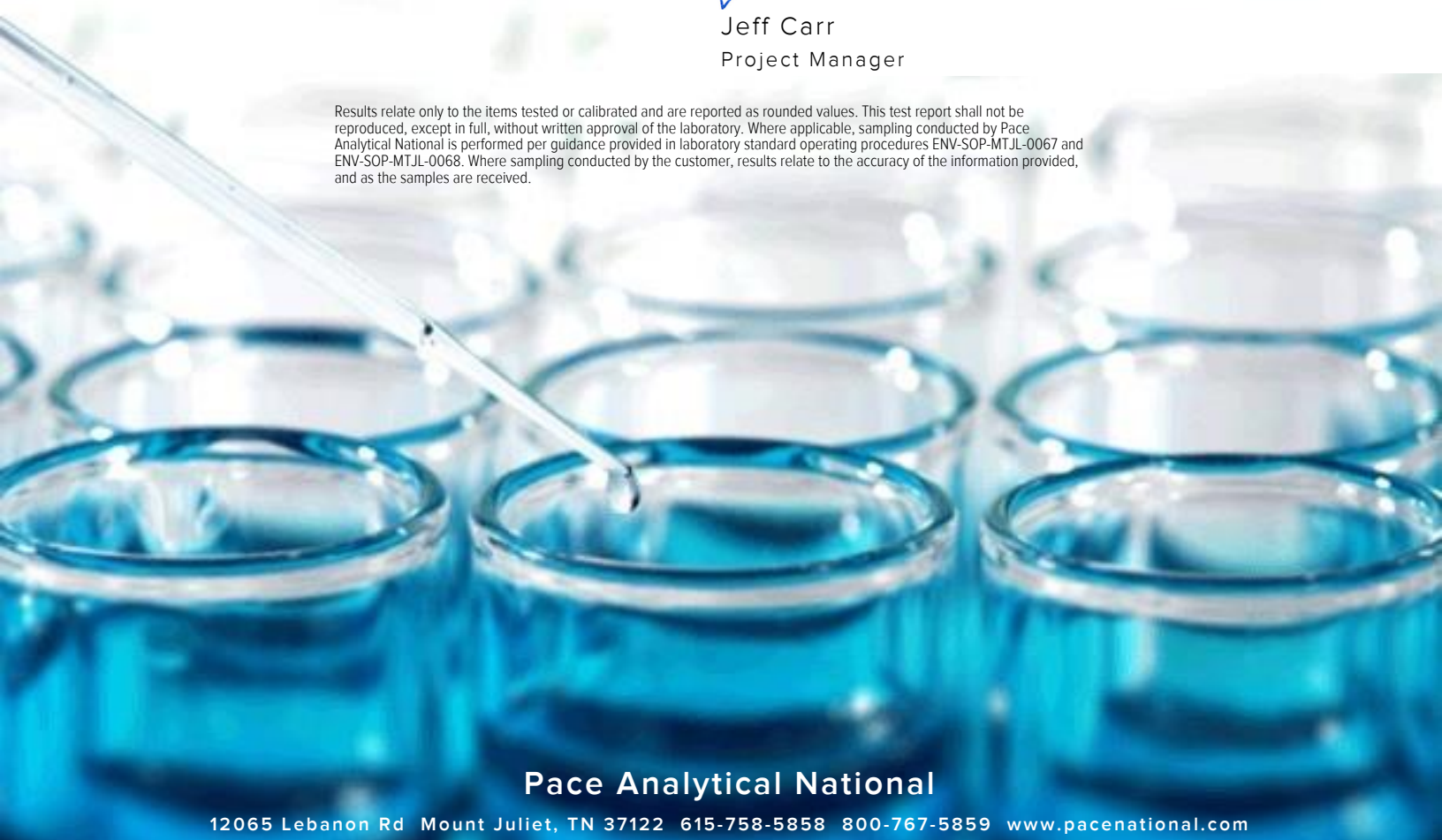
Sample Delivery Group: L1468116
Samples Received: 03/04/2022
Project Number: 27217233.21-J
Description: Evergy - LaCygne Generating Station
Site: LACYGNE ENERGY
Report To: Jason Franks
8575 West 110th Street
Suite 100
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
Project Manager

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



Pace Analytical National

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

TABLE OF CONTENTS

Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	2 Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	3 Ss
MW-601 L1468116-01	5	
MW-706 L1468116-02	6	4 Cn
MW-803 L1468116-03	7	5 Sr
MW-14R L1468116-04	8	
Qc: Quality Control Summary	9	6 Qc
Wet Chemistry by Method 2320 B-2011	9	
Wet Chemistry by Method 9056A	10	7 Gl
Metals (ICP) by Method 6010D	12	8 Al
Gl: Glossary of Terms	14	
Al: Accreditations & Locations	15	9 Sc
Sc: Sample Chain of Custody	16	

SAMPLE SUMMARY

MW-601 L1468116-01 GW

Collected by Britta Coleman Collected date/time 03/03/22 10:40 Received date/time 03/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1828291	1	03/07/22 07:23	03/07/22 07:23	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1828252	10	03/06/22 23:15	03/06/22 23:15	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1828751	1	03/09/22 11:49	03/10/22 00:31	CCE	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

MW-706 L1468116-02 GW

Collected by Britta Coleman Collected date/time 03/03/22 11:40 Received date/time 03/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1828291	1	03/07/22 07:30	03/07/22 07:30	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1828252	10	03/06/22 23:28	03/06/22 23:28	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1828875	1	03/09/22 20:17	03/10/22 11:02	KMG	Mt. Juliet, TN

4 Cn

5 Sr

6 Qc

MW-803 L1468116-03 GW

Collected by Britta Coleman Collected date/time 03/03/22 12:30 Received date/time 03/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1828291	1	03/07/22 07:34	03/07/22 07:34	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1828252	1	03/06/22 23:40	03/06/22 23:40	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1828875	1	03/09/22 20:17	03/10/22 11:12	KMG	Mt. Juliet, TN

7 Gl

8 Al

9 Sc

MW-14R L1468116-04 GW

Collected by Britta Coleman Collected date/time 03/03/22 09:55 Received date/time 03/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1828291	1	03/07/22 07:38	03/07/22 07:38	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1828517	1	03/08/22 02:58	03/08/22 02:58	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1828875	1	03/09/22 20:17	03/10/22 11:15	KMG	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 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	665000		8450	20000	1	03/07/2022 07:23	WG1828291
Alkalinity,Carbonate	U		8450	20000	1	03/07/2022 07:23	WG1828291

Sample Narrative:

L1468116-01 WG1828291: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	166000		3790	10000	10	03/06/2022 23:15	WG1828252

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	16800		79.3	1000	1	03/10/2022 00:31	WG1828751
Magnesium	10300		85.3	1000	1	03/10/2022 00:31	WG1828751
Potassium	4780		261	2000	1	03/10/2022 00:31	WG1828751
Sodium	348000		504	3000	1	03/10/2022 00:31	WG1828751

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	789000		8450	20000	1	03/07/2022 07:30	WG1828291
Alkalinity,Carbonate	U		8450	20000	1	03/07/2022 07:30	WG1828291

Sample Narrative:

L1468116-02 WG1828291: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	241000		3790	10000	10	03/06/2022 23:28	WG1828252

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	22700		79.3	1000	1	03/10/2022 11:02	WG1828875
Magnesium	19400		85.3	1000	1	03/10/2022 11:02	WG1828875
Potassium	6240		261	2000	1	03/10/2022 11:02	WG1828875
Sodium	422000	V	504	3000	1	03/10/2022 11:02	WG1828875

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	487000		8450	20000	1	03/07/2022 07:34	WG1828291
Alkalinity,Carbonate	U		8450	20000	1	03/07/2022 07:34	WG1828291

Sample Narrative:

L1468116-03 WG1828291: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	50900		379	1000	1	03/06/2022 23:40	WG1828252

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	37700		79.3	1000	1	03/10/2022 11:12	WG1828875
Magnesium	30100		85.3	1000	1	03/10/2022 11:12	WG1828875
Potassium	4740		261	2000	1	03/10/2022 11:12	WG1828875
Sodium	151000		504	3000	1	03/10/2022 11:12	WG1828875

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	468000		8450	20000	1	03/07/2022 07:38	WG1828291
Alkalinity,Carbonate	U		8450	20000	1	03/07/2022 07:38	WG1828291

Sample Narrative:

L1468116-04 WG1828291: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	60400		594	5000	1	03/08/2022 02:58	WG1828517

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	48500		79.3	1000	1	03/10/2022 11:15	WG1828875
Magnesium	38000		85.3	1000	1	03/10/2022 11:15	WG1828875
Potassium	4080		261	2000	1	03/10/2022 11:15	WG1828875
Sodium	105000		504	3000	1	03/10/2022 11:15	WG1828875

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

Method Blank (MB)

(MB) R3766978-2 03/07/22 05:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		8450	20000
Alkalinity,Carbonate	U		8450	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1467066-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1467066-01 03/07/22 06:02 • (DUP) R3766978-3 03/07/22 06:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	190000	192000	1	1.02		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

L1468116-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1468116-01 03/07/22 07:23 • (DUP) R3766978-4 03/07/22 07:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	665000	665000	1	0.0917		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3767392-1 03/06/22 17:49

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1468118-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1468118-01 03/06/22 23:53 • (DUP) R3767392-3 03/07/22 00:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	5970	5950	1	0.304		15

L1468256-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1468256-04 03/07/22 03:49 • (DUP) R3767392-6 03/07/22 04:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	10100	9990	1	0.757		15

Laboratory Control Sample (LCS)

(LCS) R3767392-2 03/06/22 18:02

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	39200	97.9	80.0-120	

L1468118-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468118-01 03/06/22 23:53 • (MS) R3767392-4 03/07/22 00:17 • (MSD) R3767392-5 03/07/22 00:55

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	50000	5970	59100	58800	106	106	1	80.0-120			0.580	15

L1468256-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1468256-04 03/07/22 03:49 • (MS) R3767392-7 03/07/22 04:14

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	10100	61200	102	1	80.0-120	

Method Blank (MB)

(MB) R3767440-1 03/07/22 20:27

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1468117-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1468117-02 03/08/22 04:00 • (DUP) R3767440-6 03/08/22 04:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	16700	16600	1	0.432		15

Laboratory Control Sample (LCS)

(LCS) R3767440-2 03/07/22 20:42

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Sulfate	40000	41800	105	80.0-120	

L1468117-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468117-01 03/08/22 03:13 • (MS) R3767440-4 03/08/22 03:29 • (MSD) R3767440-5 03/08/22 03:44

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	16700	63400	63400	93.4	93.4	1	80.0-120			0.0596	15

L1468174-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468174-01 03/08/22 06:03 • (MS) R3767440-7 03/08/22 06:18 • (MSD) R3767440-8 03/08/22 06:34

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	90200	135000	135000	89.3	89.4	1	80.0-120	E	E	0.0266	15

Method Blank (MB)

(MB) R3768206-1 03/09/22 23:11

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Calcium	U		79.3	1000
Magnesium	U		85.3	1000
Potassium	U		261	2000
Sodium	U		504	3000

Laboratory Control Sample (LCS)

(LCS) R3768206-2 03/09/22 23:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	10000	9660	96.6	80.0-120	
Magnesium	10000	9320	93.2	80.0-120	
Potassium	10000	9440	94.4	80.0-120	
Sodium	10000	9780	97.8	80.0-120	

L1468064-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468064-18 03/09/22 23:17 • (MS) R3768206-4 03/09/22 23:23 • (MSD) R3768206-5 03/09/22 23:26

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 %
Calcium	10000	1170000	1170000	1160000	0.000	0.000	1	75.0-125	<u>EV</u>	<u>EV</u>	0.564	20
Magnesium	10000	731000	731000	725000	0.000	0.000	1	75.0-125	<u>V</u>	<u>V</u>	0.828	20
Potassium	10000	17000	29000	28900	119	118	1	75.0-125			0.416	20
Sodium	10000	1080000	1070000	1060000	0.000	0.000	1	75.0-125	<u>EV</u>	<u>EV</u>	0.761	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3768603-1 03/10/22 10:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Calcium	U		79.3	1000
Magnesium	U		85.3	1000
Potassium	U		261	2000
Sodium	U		504	3000

Laboratory Control Sample (LCS)

(LCS) R3768603-2 03/10/22 10:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	10000	9620	96.2	80.0-120	
Magnesium	10000	9740	97.4	80.0-120	
Potassium	10000	9040	90.4	80.0-120	
Sodium	10000	10200	102	80.0-120	

L1468116-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468116-02 03/10/22 11:02 • (MS) R3768603-4 03/10/22 11:07 • (MSD) R3768603-5 03/10/22 11:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	10000	22700	31700	31500	90.0	87.9	1	75.0-125			0.668	20
Magnesium	10000	19400	28200	28200	88.2	88.3	1	75.0-125			0.0418	20
Potassium	10000	6240	15200	15200	89.5	89.7	1	75.0-125			0.170	20
Sodium	10000	422000	422000	422000	0.000	5.71	1	75.0-125	<u>V</u>	<u>V</u>	0.140	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

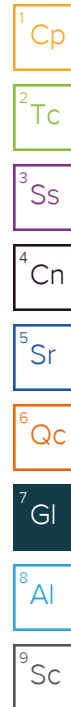
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
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 West 110th Street
 Suite 100
 Overland Park, KS 66210

Billing Information:
 Accounts Payable
 8575 W. 110th Street
 Suite 100
 Overland Park, KS 66210

Report to: **Jason Franks**
 Email To: **jfranks@scsengineers.com;jay.martin@evergy.c**

Project Description: **Energy - LaCygne Generating Station**
 City/State Collected: **La Cygne, KS**
 Please Circle: **PT MT OT ET**

Phone: **913-681-0030**
 Client Project #: **27217233.21-J**
 Lab Project #: **AQUAOPKS-LACYGNE**

Collected by (print): **Brianna Coleman**
 Site/Facility ID #: **La Cygne Energy**
 P.O. #

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

Quote #
 Date Results Needed: **STD**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	ALKBI, ALKCA	Ca, K, Mg, Na	Chloride	SO4	Analysis / Container / Preservative	Chain of Custody
MW-601	Grab	GW	-	3/3/22	1040	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/hubs/pas-standard-terms.pdf SDG # 1468116 H075 Acctnum: AQUAOPKS Template: T152974 Prelogin: P908223 PM: 206 - Jeff Carr PB: Shipped Via: Remarks Sample # (lab only)
MW-706	Grab	GW	-	3/3/22	1140	3	X	X	X			
MW-803	Grab	GW	-	3/3/22	1230	3	X	X	X			
MW-14R	Grab	GW	-	3/3/22	0955	3	X	X		X		

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	ALKBI, ALKCA	Ca, K, Mg, Na	Chloride	SO4	Analysis / Container / Preservative	Chain of Custody
MW-601	Grab	GW	-	3/3/22	1040	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/hubs/pas-standard-terms.pdf SDG # 1468116 H075 Acctnum: AQUAOPKS Template: T152974 Prelogin: P908223 PM: 206 - Jeff Carr PB: Shipped Via: Remarks Sample # (lab only)
MW-706	Grab	GW	-	3/3/22	1140	3	X	X	X			
MW-803	Grab	GW	-	3/3/22	1230	3	X	X	X			
MW-14R	Grab	GW	-	3/3/22	0955	3	X	X		X		

* 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) *[Signature]* Date: **3/3/22** Time: **1430**
 Received by: (Signature) _____ Trip Blank Received: Yes/No HCL/MeOH TBR

Relinquished by: (Signature) _____ Date: _____ Time: _____
 Received by: (Signature) _____ Temp: **1.4** °C Bottles Received: **12**
 If preservation required by Login: Date/Time

Relinquished by: (Signature) _____ Date: _____ Time: _____
 Received for lab by: (Signature) *[Signature]* Date: **3/4/22** Time: **0930**
 Hold: _____ Condition: **NCF 1/OK**

SCS Engineers - KS

Sample Delivery Group: L1492161
Samples Received: 05/10/2022
Project Number: 27217233.22-A
Description: Evergy - LaCygne Generating Station

Report To: Jason Franks
8575 West 110th Street
Suite 100
Overland Park, KS 66210

Entire Report Reviewed By:



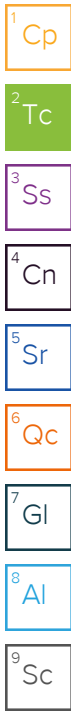
Jeff Carr
Project Manager

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-6 L1492161-01	7
MW-7 L1492161-02	8
MW-11 L1492161-03	9
MW-701 L1492161-04	10
MW-702 L1492161-05	11
MW-705 L1492161-06	12
MW-706 L1492161-07	13
MW-707B L1492161-08	14
MW-708 L1492161-09	15
TW-1 L1492161-10	16
DUPLICATE L1492161-11	17
MW-703 L1492161-12	18
MW-704 L1492161-13	19
Qc: Quality Control Summary	20
Gravimetric Analysis by Method 2540 C-2011	20
Wet Chemistry by Method 9056A	22
Metals (ICP) by Method 6010D	24
Gl: Glossary of Terms	26
Al: Accreditations & Locations	27
Sc: Sample Chain of Custody	28



SAMPLE SUMMARY

MW-6 L1492161-01 GW

Collected by Whit Martin Collected date/time 05/09/22 10:35 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864112	1	05/15/22 18:01	05/15/22 18:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 14:24	05/26/22 14:24	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	5	05/26/22 14:40	05/26/22 14:40	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:28	ZSA	Mt. Juliet, TN

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

MW-7 L1492161-02 GW

Collected by Whit Martin Collected date/time 05/09/22 11:15 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864112	1	05/15/22 18:01	05/15/22 18:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 14:56	05/26/22 14:56	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:31	ZSA	Mt. Juliet, TN

MW-11 L1492161-03 GW

Collected by Whit Martin Collected date/time 05/09/22 14:20 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864112	1	05/15/22 18:01	05/15/22 18:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 15:28	05/26/22 15:28	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	5	05/26/22 15:44	05/26/22 15:44	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:34	ZSA	Mt. Juliet, TN

MW-701 L1492161-04 GW

Collected by Whit Martin Collected date/time 05/09/22 13:10 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864112	1	05/15/22 18:01	05/15/22 18:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 16:00	05/26/22 16:00	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:36	ZSA	Mt. Juliet, TN

MW-702 L1492161-05 GW

Collected by Whit Martin Collected date/time 05/09/22 13:40 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864112	1	05/15/22 18:01	05/15/22 18:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 17:04	05/26/22 17:04	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:01	ZSA	Mt. Juliet, TN

MW-705 L1492161-06 GW

Collected by Whit Martin Collected date/time 05/09/22 12:45 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864112	1	05/15/22 18:01	05/15/22 18:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 18:07	05/26/22 18:07	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	5	05/26/22 18:23	05/26/22 18:23	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:39	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-706 L1492161-07 GW

Collected by Whit Martin Collected date/time 05/09/22 13:30 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864085	1	05/15/22 16:01	05/15/22 17:12	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 18:39	05/26/22 18:39	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	5	05/26/22 18:55	05/26/22 18:55	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:42	ZSA	Mt. Juliet, TN

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

MW-707B L1492161-08 GW

Collected by Whit Martin Collected date/time 05/09/22 14:40 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864112	1	05/15/22 18:01	05/15/22 18:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	10	05/26/22 19:11	05/26/22 19:11	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	100	05/26/22 19:27	05/26/22 19:27	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864828	1	05/18/22 04:46	05/19/22 15:51	ZSA	Mt. Juliet, TN

MW-708 L1492161-09 GW

Collected by Whit Martin Collected date/time 05/09/22 15:20 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864085	1	05/15/22 16:01	05/15/22 17:12	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 20:14	05/26/22 20:14	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:45	ZSA	Mt. Juliet, TN

TW-1 L1492161-10 GW

Collected by Whit Martin Collected date/time 05/09/22 14:05 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864085	1	05/15/22 16:01	05/15/22 17:12	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 20:30	05/26/22 20:30	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:48	ZSA	Mt. Juliet, TN

DUPLICATE L1492161-11 GW

Collected by Whit Martin Collected date/time 05/09/22 00:00 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864085	1	05/15/22 16:01	05/15/22 17:12	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 20:46	05/26/22 20:46	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:51	ZSA	Mt. Juliet, TN

MW-703 L1492161-12 GW

Collected by Whit Martin Collected date/time 05/09/22 13:45 Received date/time 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864085	1	05/15/22 16:01	05/15/22 17:12	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 21:02	05/26/22 21:02	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	5	05/26/22 21:18	05/26/22 21:18	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 10:53	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

MW-704 L1492161-13 GW

Collected by: Whit Martin
 Collected date/time: 05/09/22 14:15
 Received date/time: 05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864085	1	05/15/22 16:01	05/15/22 17:12	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	1	05/26/22 21:34	05/26/22 21:34	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868597	5	05/26/22 21:50	05/26/22 21:50	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864520	1	05/16/22 22:05	05/17/22 11:02	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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1010000	<u>J3</u>	20000	1	05/15/2022 18:48	WG1864112

¹ Cp

² Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	189000		1900	5000	5	05/26/2022 14:40	WG1868597
Fluoride	543		64.0	150	1	05/26/2022 14:24	WG1868597
Sulfate	110000		2970	25000	5	05/26/2022 14:40	WG1868597

³ Ss

⁴ Cn

⁵ Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1090		20.0	200	1	05/17/2022 10:28	WG1864520
Calcium	68200		79.3	1000	1	05/17/2022 10:28	WG1864520

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	816000		20000	1	05/15/2022 18:48	WG1864112

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	97300		379	1000	1	05/26/2022 14:56	WG1868597
Fluoride	1170		64.0	150	1	05/26/2022 14:56	WG1868597
Sulfate	1980	J	594	5000	1	05/26/2022 14:56	WG1868597

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Boron	1490		20.0	200	1	05/17/2022 10:31	WG1864520
Calcium	20700		79.3	1000	1	05/17/2022 10:31	WG1864520

- 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	848000		20000	1	05/15/2022 18:48	WG1864112

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	70000		379	1000	1	05/26/2022 15:28	WG1868597
Fluoride	505		64.0	150	1	05/26/2022 15:28	WG1868597
Sulfate	196000		2970	25000	5	05/26/2022 15:44	WG1868597

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1160		20.0	200	1	05/17/2022 10:34	WG1864520
Calcium	54300		79.3	1000	1	05/17/2022 10:34	WG1864520

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	542000		10000	1	05/15/2022 18:48	WG1864112

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	48500		379	1000	1	05/26/2022 16:00	WG1868597
Fluoride	574		64.0	150	1	05/26/2022 16:00	WG1868597
Sulfate	89100		594	5000	1	05/26/2022 16:00	WG1868597

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	883		20.0	200	1	05/17/2022 10:36	WG1864520
Calcium	41600		79.3	1000	1	05/17/2022 10:36	WG1864520

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	601000		13300	1	05/15/2022 18:48	WG1864112

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	47800		379	1000	1	05/26/2022 17:04	WG1868597
Fluoride	1270		64.0	150	1	05/26/2022 17:04	WG1868597
Sulfate	808	J	594	5000	1	05/26/2022 17:04	WG1868597

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Boron	1740	O1	20.0	200	1	05/17/2022 10:01	WG1864520
Calcium	12100	O1	79.3	1000	1	05/17/2022 10:01	WG1864520

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	917000		13300	1	05/15/2022 18:48	WG1864112

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	136000		1900	5000	5	05/26/2022 18:23	WG1868597
Fluoride	939		64.0	150	1	05/26/2022 18:07	WG1868597
Sulfate	40700		594	5000	1	05/26/2022 18:07	WG1868597

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	2000		20.0	200	1	05/17/2022 10:39	WG1864520
Calcium	27600		79.3	1000	1	05/17/2022 10:39	WG1864520

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	1190000		10000	1	05/15/2022 17:12	WG1864085

Sample Narrative:

L1492161-07 WG1864085: Result confirmed with OOH run.

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	255000		1900	5000	5	05/26/2022 18:55	WG1868597
Fluoride	1010		64.0	150	1	05/26/2022 18:39	WG1868597
Sulfate	11700		594	5000	1	05/26/2022 18:39	WG1868597

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1980		20.0	200	1	05/17/2022 10:42	WG1864520
Calcium	23700		79.3	1000	1	05/17/2022 10:42	WG1864520

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	5460000		100000	1	05/15/2022 18:48	WG1864112

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	163000		3790	10000	10	05/26/2022 19:11	WG1868597
Fluoride	U		640	1500	10	05/26/2022 19:11	WG1868597
Sulfate	5870000		59400	500000	100	05/26/2022 19:27	WG1868597

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Boron	1860		20.0	200	1	05/19/2022 15:51	WG1864828
Calcium	438000		79.3	1000	1	05/19/2022 15:51	WG1864828

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	628000		10000	1	05/15/2022 17:12	WG1864085

Sample Narrative:

L1492161-09 WG1864085: Result confirmed with OOH run.

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	46700		379	1000	1	05/26/2022 20:14	WG1868597
Fluoride	530		64.0	150	1	05/26/2022 20:14	WG1868597
Sulfate	9340		594	5000	1	05/26/2022 20:14	WG1868597

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Boron	1270		20.0	200	1	05/17/2022 10:45	WG1864520
Calcium	28600		79.3	1000	1	05/17/2022 10:45	WG1864520

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	951000	<u>J3</u>	13300	1	05/15/2022 17:12	WG1864085

¹ Cp

² Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	41200		379	1000	1	05/26/2022 20:30	WG1868597
Fluoride	355		64.0	150	1	05/26/2022 20:30	WG1868597
Sulfate	72900		594	5000	1	05/26/2022 20:30	WG1868597

³ Ss

⁴ Cn

⁵ Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1370		20.0	200	1	05/17/2022 10:48	WG1864520
Calcium	24300		79.3	1000	1	05/17/2022 10:48	WG1864520

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	611000		10000	1	05/15/2022 17:12	WG1864085

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	47600		379	1000	1	05/26/2022 20:46	WG1868597
Fluoride	1280		64.0	150	1	05/26/2022 20:46	WG1868597
Sulfate	952	J	594	5000	1	05/26/2022 20:46	WG1868597

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Boron	1680		20.0	200	1	05/17/2022 10:51	WG1864520
Calcium	10900		79.3	1000	1	05/17/2022 10:51	WG1864520

- 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	865000		10000	1	05/15/2022 17:12	WG1864085

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	111000		1900	5000	5	05/26/2022 21:18	WG1868597
Fluoride	1420		64.0	150	1	05/26/2022 21:02	WG1868597
Sulfate	784	J	594	5000	1	05/26/2022 21:02	WG1868597

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1790		20.0	200	1	05/17/2022 10:53	WG1864520
Calcium	19800		79.3	1000	1	05/17/2022 10:53	WG1864520

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	1110000		20000	1	05/15/2022 17:12	WG1864085

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	94500		379	1000	1	05/26/2022 21:34	WG1868597
Fluoride	815		64.0	150	1	05/26/2022 21:34	WG1868597
Sulfate	154000		2970	25000	5	05/26/2022 21:50	WG1868597

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Boron	1970		20.0	200	1	05/17/2022 11:02	WG1864520
Calcium	20600		79.3	1000	1	05/17/2022 11:02	WG1864520

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3792845-1 05/15/22 17:12

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

1 Cp

2 Tc

3 Ss

L1491951-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1491951-01 05/15/22 17:12 • (DUP) R3792845-3 05/15/22 17:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1420000	1520000	1	7.07	J3	5

4 Cn

5 Sr

L1492161-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1492161-10 05/15/22 17:12 • (DUP) R3792845-4 05/15/22 17:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	951000	1020000	1	7.17	J3	5

6 Qc

7 Gl

8 Al

Laboratory Control Sample (LCS)

(LCS) R3792845-2 05/15/22 17:12

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	2460000	2480000	101	81.7-118	

9 Sc

Method Blank (MB)

(MB) R3792881-1 05/15/22 18:48

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

1 Cp

2 Tc

3 Ss

L1492161-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1492161-01 05/15/22 18:48 • (DUP) R3792881-3 05/15/22 18:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1010000	1080000	1	6.71	J3	5

4 Cn

5 Sr

6 Qc

L1492161-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1492161-02 05/15/22 18:48 • (DUP) R3792881-4 05/15/22 18:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	816000	824000	1	0.976		5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3792881-2 05/15/22 18:48

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	2460000	2400000	97.6	81.7-118	

Method Blank (MB)

(MB) R3796696-1 05/26/22 08:52

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

L1491898-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1491898-09 05/26/22 11:14 • (DUP) R3796696-3 05/26/22 11:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	22500	22700	1	0.987		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

L1492161-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1492161-05 05/26/22 17:04 • (DUP) R3796696-6 05/26/22 17:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	47800	47400	1	0.789		15
Fluoride	1270	1270	1	0.00787		15
Sulfate	808	783	1	3.10	↓	15

Laboratory Control Sample (LCS)

(LCS) R3796696-2 05/26/22 09:08

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Chloride	40000	40400	101	80.0-120	
Fluoride	8000	8380	105	80.0-120	
Sulfate	40000	41600	104	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1491898-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1491898-09 05/26/22 11:14 • (MS) R3796696-4 05/26/22 11:45 • (MSD) R3796696-5 05/26/22 12:01

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 %
Chloride	50000	22500	72600	72700	100	100	1	80.0-120			0.174	15
Fluoride	5000	U	5060	5060	101	101	1	80.0-120			0.00395	15
Sulfate	50000	U	50900	51200	102	102	1	80.0-120			0.490	15

L1492161-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492161-05 05/26/22 17:04 • (MS) R3796696-7 05/26/22 17:35 • (MSD) R3796696-8 05/26/22 17:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	47800	98500	97700	102	100	1	80.0-120			0.797	15
Fluoride	5000	1270	6420	6500	103	105	1	80.0-120			1.27	15
Sulfate	50000	808	51800	52100	102	103	1	80.0-120			0.684	15

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

Method Blank (MB)

(MB) R3792774-1 05/17/22 09:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Boron	U		20.0	200
Calcium	198	J	79.3	1000

Laboratory Control Sample (LCS)

(LCS) R3792774-2 05/17/22 09:58

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Boron	1000	947	94.7	80.0-120	
Calcium	10000	9340	93.4	80.0-120	

L1492161-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492161-05 05/17/22 10:01 • (MS) R3792774-4 05/17/22 10:06 • (MSD) R3792774-5 05/17/22 10:09

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	%	%		%			%	%
Boron	1000	1740	2620	2620	87.8	88.1	1	75.0-125			0.118	20
Calcium	10000	12100	20800	20800	86.8	87.0	1	75.0-125			0.101	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3793878-1 05/19/22 14:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Boron	U		20.0	200
Calcium	U		79.3	1000

Laboratory Control Sample (LCS)

(LCS) R3793878-2 05/19/22 14:48

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Boron	1000	958	95.8	80.0-120	
Calcium	10000	9650	96.5	80.0-120	

L1492113-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492113-01 05/19/22 14:50 • (MS) R3793878-4 05/19/22 14:56 • (MSD) R3793878-5 05/19/22 14:58

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	%	%		%			%	%
Boron	1000	87.7	1070	1080	98.7	99.7	1	75.0-125			0.912	20
Calcium	10000	148000	157000	156000	80.8	78.9	1	75.0-125			0.123	20

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

GLOSSARY OF TERMS

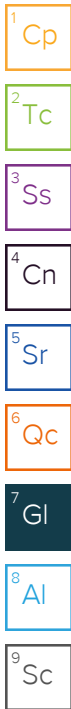
Guide to Reading and Understanding Your Laboratory Report

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.
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.
J3	The associated batch QC was outside the established quality control range for precision.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

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 West 110th Street
 Suite 100
 Overland Park, KS 66210

Billing Information:
Accounts Payable
 8575 W. 110th Street
 Suite 100
 Overland Park, KS 66210

Report to:
Jason Franks

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

Project Description:
Evergy - LaCygne Generating Station

City/State Collected:
LaCygne

Please Circle:
 PT MT **CT** ET

Phone: **913-681-0030**

Client Project #
27217233.22-A

Lab Project #
AQUAOPKS-LACYGNE

Collected by (print):
Whit Martin

Site/Facility ID #

P.O. #

Collected by (signature):
Whit Martin

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 **X**


Date Results Needed
Std

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative
MW-6	Grab	GW		5/9/22	1035	3	X X X
MW-7	Grab	GW		5/9/22	1115	3	X X X
MW-11	Grab	GW		5/9/22	1420	3	X X X
MW-701	Grab	GW		5/9/22	1310	3	X X X
MW-702	Grab	GW		5/9/22	1340	3	X X X
MW-703	Grab	GW		5/9/22	1345	3	X X X
MW-704	Grab	GW		5/9/22	1415	3	X X X
MW-705	Grab	GW		5/9/22	1245	3	X X X
MW-706	Grab	GW		5/9/22	1330	3	X X X
MW-707B	Grab	GW		5/9/22	1440	3	X X X

Analysis / Container / Preservative
Pres Chk
2
Anions (Cl, F, SO4) 125mlHDPE-NoPres
B, Ca - 6010 250mlHDPE-HNO3
TDS 250mlHDPE-NoPres

Chain of Custody Page 1 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>

SDG # **4492161**
G082

Acctnum: **AQUAOPKS**
 Template: **T150678**
 Prelogin: **P922501**
 PM: **206 - Jeff Carr**
 PB:

Shipped Via: **FedEX Ground**

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

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

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via:
 ___ UPS ___ FedEx ___ Courier

Tracking # **5300 4294 3879**

Sample Receipt Checklist

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

Relinquished by: (Signature)
Whit Martin

Date: **5/9/22**
 Time: **1700**

Received by: (Signature)

Trip Blank Received: **1** Yes / No
 ___ MeOH
 TBR

Relinquished by: (Signature)

Date: _____
 Time: _____

Received by: (Signature)

Temp: **5.8**
2.8-10 = 2.8
41

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: _____
 Time: _____

Received for lab by: (Signature)
Whit Martin

Date: **5/10/22**
 Time: **0930**

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

Company Name/Address:
SCS Engineers - KS
 8575 West 110th Street
 Suite 100
 Overland Park, KS 66210

Billing Information:
 Accounts Payable
 8575 W. 110th Street
 Suite 100
 Overland Park, KS 66210

Analysis / Container / Preservative										
Pres Chk	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:
Evergy - LaCygne Generating Station

City/State Collected:
La Cygne

Please Circle:
 PT MT **CT** ET

Phone: **913-681-0030**

Client Project #
27217233.22-A

Lab Project #
AQUAOPKS-LACYGNE

Collected by (print):
Whit Martin

Site/Facility ID #

P.O. #

Collected by (signature):
Whit Martin
 Immediately
 Packed on Ice N Y **X**

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

Quote #
 Date Results Needed
Std

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions (Cl, F, SO4)	B, Ca	TDS	125mlHDPE-NoPres	250mlHDPE-HNO3	250mlHDPE-NoPres
MW-708	Grab	GW		5/9/22	1520	3	X	X	X			
TW-1	Grab	GW		5/9/22	1405	3	X	X	X			
DUPLICATE	Grab	GW		5/9/22	—	3	X	X	X			
702 MS/MSD	Grab	GW		5/9/22		2	X	X				

SDG #
 Table #
 Acctnum: **AQUAOPKS**
 Template: **T150678**
 Prelogin: **P922501**
 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 type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

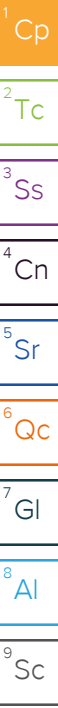
Relinquished by: (Signature)
Whit Martin

Date: **5/9/22**
 Time: **1700**

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

Trip Blank Received: Yes/No
 HCL/ MeOH
 TBR
 Temp: **JARR**
2.840 = 2.8
 Bottles Received: **41**
 Date: **5/10/22**
 Time: **0930**

If preservation required by Login: Date/Time
 Hold:
 Condition:
 NCF **100**



SCS Engineers - KS

Sample Delivery Group: L1515914
Samples Received: 07/16/2022
Project Number: 27217233.22-I
Description: Eveyrg La Cygne Gen Station GW 2022-23

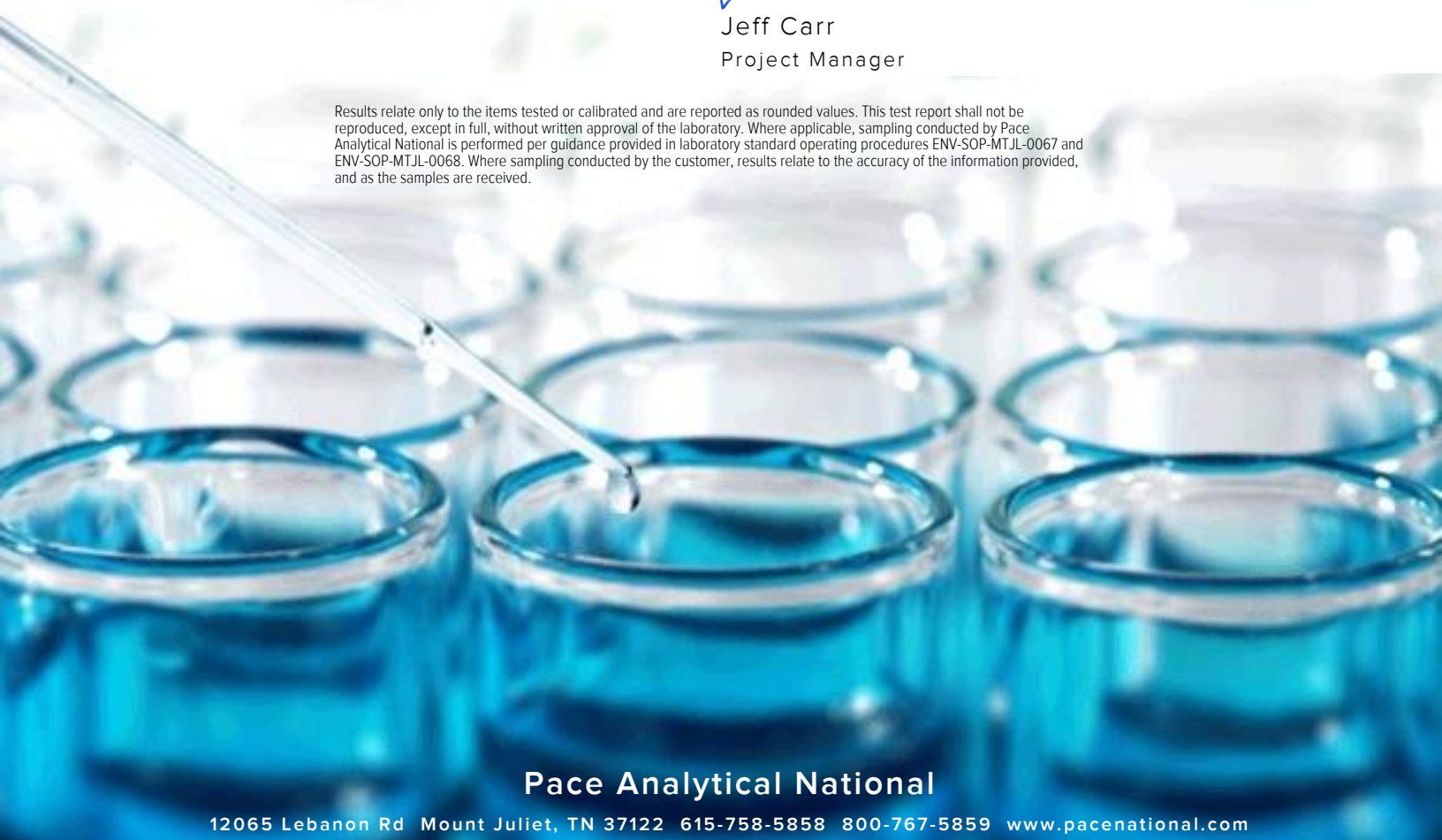
Report To: Jason Franks
8575 West 110th Street
Suite 100
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
Project Manager









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



Pace Analytical National

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

TABLE OF CONTENTS

Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	4	
Sr: Sample Results	5	
MW-803 L1515914-01	5	
DUPLICATE L L1515914-02	6	
MW-804 L1515914-03	7	
MW-701 L1515914-04	8	
MW-704 L1515914-05	9	
DUPLICATE U1 L1515914-06	10	
MW-707B L1515914-07	11	
DUPLICATE U2 L1515914-08	12	
Qc: Quality Control Summary	13	
Wet Chemistry by Method 9056A	13	
Metals (ICP) by Method 6010D	17	
Gl: Glossary of Terms	19	
Al: Accreditations & Locations	20	
Sc: Sample Chain of Custody	21	

SAMPLE SUMMARY

MW-803 L1515914-01 GW

Collected by A Thompson Collected date/time 07/15/22 12:45 Received date/time 07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1900328	1	07/25/22 20:44	07/25/22 20:44	ELN	Mt. Juliet, TN

1 Cp

2 Tc

DUPLICATE L L1515914-02 GW

Collected by A Thompson Collected date/time 07/15/22 12:50 Received date/time 07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 06:07	07/23/22 06:07	LBR	Mt. Juliet, TN

3 Ss

4 Cn

5 Sr

MW-804 L1515914-03 GW

Collected by A Thompson Collected date/time 07/15/22 12:00 Received date/time 07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 06:37	07/23/22 06:37	LBR	Mt. Juliet, TN

6 Qc

7 Gl

8 Al

MW-701 L1515914-04 GW

Collected by A Thompson Collected date/time 07/15/22 14:45 Received date/time 07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 06:52	07/23/22 06:52	LBR	Mt. Juliet, TN

9 Sc

MW-704 L1515914-05 GW

Collected by A Thompson Collected date/time 07/15/22 14:00 Received date/time 07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 01:54	07/23/22 01:54	LBR	Mt. Juliet, TN

DUPLICATE U1 L1515914-06 GW

Collected by A Thompson Collected date/time 07/15/22 14:10 Received date/time 07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 07:07	07/23/22 07:07	LBR	Mt. Juliet, TN

MW-707B L1515914-07 GW

Collected by A Thompson Collected date/time 07/15/22 10:55 Received date/time 07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 07:22	07/23/22 07:22	JD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1899469	100	07/23/22 08:07	07/23/22 08:07	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1903515	1	08/01/22 00:26	08/01/22 18:26	CCE	Mt. Juliet, TN

DUPLICATE U2 L1515914-08 GW

Collected by A Thompson Collected date/time 07/15/22 11:05 Received date/time 07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 08:51	07/23/22 08:51	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1899469	100	07/23/22 09:06	07/23/22 09:06	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1900533	1	08/01/22 09:42	08/02/22 15:51	KMG	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	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	51200		379	1000	1	07/25/2022 20:44	WG1900328
Sulfate	31600		594	5000	1	07/25/2022 20:44	WG1900328

- 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	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	50800		379	1000	1	07/23/2022 06:07	WG1899469
Sulfate	31100		594	5000	1	07/23/2022 06:07	WG1899469

- 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	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	27400		594	5000	1	07/23/2022 06:37	WG1899469

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	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	90200		594	5000	1	07/23/2022 06:52	WG1899469

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

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	95200		379	1000	1	07/23/2022 01:54	WG1899469

- 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	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	95400		379	1000	1	07/23/2022 07:07	WG1899469

- 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	MDL	RDL	Dilution	Analysis date / time	Batch
Fluoride	328	<u>J6</u>	64.0	150	1	07/23/2022 07:22	WG1899469
Sulfate	5390000	<u>V</u>	59400	500000	100	07/23/2022 08:07	WG1899469

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	399000		79.3	1000	1	08/01/2022 18:26	WG1903515

- 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	MDL	RDL	Dilution	Analysis date / time	Batch
Fluoride	315		64.0	150	1	07/23/2022 08:51	WG1899469
Sulfate	5930000		59400	500000	100	07/23/2022 09:06	WG1899469

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	407000		79.3	1000	1	08/02/2022 15:51	WG1900533

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

Method Blank (MB)

(MB) R3818508-1 07/23/22 00:40

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

L1515869-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1515869-01 07/23/22 01:24 • (DUP) R3818508-3 07/23/22 01:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	98700	98600	1	0.0820		15
Fluoride	171	161	1	6.09		15
Sulfate	116000	116000	1	0.768		15

L1515914-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1515914-02 07/23/22 06:07 • (DUP) R3818508-6 07/23/22 06:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	50800	50800	1	0.0272		15
Fluoride	616	649	1	5.21		15
Sulfate	31100	31100	1	0.110		15

Laboratory Control Sample (LCS)

(LCS) R3818508-2 07/23/22 00:54

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	39800	99.4	80.0-120	
Fluoride	8000	8260	103	80.0-120	
Sulfate	40000	40500	101	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1515914-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515914-05 07/23/22 01:54 • (MS) R3818508-4 07/23/22 02:09 • (MSD) R3818508-5 07/23/22 02:54

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	95200	142000	142000	94.2	94.2	1	80.0-120			0.000913	15
Fluoride	5000	805	5670	5810	97.4	100	1	80.0-120			2.32	15
Sulfate	50000	156000	203000	203000	93.4	93.9	1	80.0-120	<u>E</u>	<u>E</u>	0.129	15

L1515914-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515914-07 07/23/22 07:22 • (MS) R3818508-7 07/23/22 07:37 • (MSD) R3818508-8 07/23/22 07:52

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	167000	211000	210000	88.6	86.0	1	80.0-120	<u>E</u>	<u>E</u>	0.632	15
Fluoride	5000	328	4440	4280	82.2	79.0	1	80.0-120		<u>J6</u>	3.64	15
Sulfate	50000	5500000	5310000	5300000	0.000	0.000	1	80.0-120	<u>E V</u>	<u>E V</u>	0.0253	15

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3819173-1 07/25/22 14:03

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1514736-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1514736-11 07/25/22 19:17 • (DUP) R3819173-3 07/25/22 19:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	426000	427000	5	0.225		15
Sulfate	427000	427000	5	0.0434		15

L1517757-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1517757-16 07/25/22 23:50 • (DUP) R3819173-6 07/26/22 00:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	6410	6480	1	1.04		15
Sulfate	172000	173000	1	0.153		15

Laboratory Control Sample (LCS)

(LCS) R3819173-2 07/25/22 14:16

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	40100	100	80.0-120	
Sulfate	40000	40500	101	80.0-120	

L1515914-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515914-01 07/25/22 20:44 • (MS) R3819173-4 07/25/22 20:56 • (MSD) R3819173-5 07/25/22 21:09

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	50000	51200	98000	98000	93.6	93.6	1	80.0-120			0.0488	15
Sulfate	50000	31600	79400	79200	95.6	95.2	1	80.0-120			0.247	15

L1517757-17 Original Sample (OS) • Matrix Spike (MS)

(OS) L1517757-17 07/26/22 00:15 • (MS) R3819173-7 07/26/22 00:28

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	50000	3110	53400	101	1	80.0-120	
Sulfate	50000	112000	155000	87.4	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) R3821914-1 08/02/22 14:46

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Calcium	U		79.3	1000

¹Cp

²Tc

³Ss

Laboratory Control Sample (LCS)

(LCS) R3821914-2 08/02/22 14:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	10000	9520	95.2	80.0-120	

⁴Cn

⁵Sr

L1515678-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515678-01 08/02/22 14:51 • (MS) R3821914-4 08/02/22 14:57 • (MSD) R3821914-5 08/02/22 14:59

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 %
Calcium	10000	35000	44800	44900	97.4	98.4	1	75.0-125			0.222	20

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3821509-1 08/01/22 18:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Calcium	U		79.3	1000

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3821509-2 08/01/22 18:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	10000	10300	103	80.0-120	

4 Cn

5 Sr

L1515914-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515914-07 08/01/22 18:26 • (MS) R3821509-4 08/01/22 18:32 • (MSD) R3821509-5 08/01/22 18:35

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 %
Calcium	10000	399000	405000	402000	59.9	21.3	1	75.0-125	<u>V</u>	<u>V</u>	0.956	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.

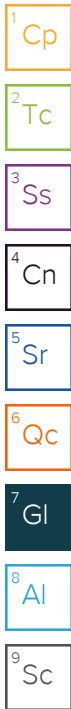
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
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 West 110th Street
 Suite 100
 Overland Park, KS 66210

Billing Information:
 Accounts Payable
 8575 W. 110th Street
 Suite 100
 Overland Park, KS 66210

Report to: **Jason Franks**
 Email To: **jfranks@scsengineers.com;jay.martin@evergy.c**

Project Description: **Evergy La Cygne Gen Station GW 2022-23**
 City/State Collected: _____ Please Circle: PT MT CT ET

Phone: **913-681-0030**
 Client Project # **27217233.22-1**
 Lab Project # **AQUAOPKS-LACYGNE**

Collected by (print): **A Thomson**
 Site/Facility ID # _____ P.O. # _____
 Collected by (signature): *[Signature]*
Rush? (Lab MUST Be Notified)
 ___ Same Day ___ Five Day
 ___ Next Day ___ 5 Day (Rad Only)
 ___ Two Day ___ 10 Day (Rad Only)
 ___ Three Day

Immediately Packed on Ice N ___ Y

Quote # _____ Date Results Needed _____

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Chloride, SO4 125mlHDPE-NoPres	Sulfate 125mlHDPE-NoPres	Analysis / Container / Preservative	Chain of Custody
MW-13		GW				1	X				Pace PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf SDG # 1515914 G217 Acctnum: AQUAOPKS Template: T212775 Prelogin: P937595 PM: 206 - Jeff Carr PB: Shipped Via: FedEX Ground Remarks Sample # (lab only)
MW-803	G	GW		7/15	1245	1		X			
MW-803 MS/MSD	G	GW		7/15	1255	1		X			
DUPLICATE L	G	GW		7/15	1250	1		X			
MW-804	G	GW		7/15	1200	1			X		

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Chloride, SO4 125mlHDPE-NoPres	Sulfate 125mlHDPE-NoPres	Analysis / Container / Preservative	Chain of Custody
MW-13		GW				1	X				Pace PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf SDG # 1515914 G217 Acctnum: AQUAOPKS Template: T212775 Prelogin: P937595 PM: 206 - Jeff Carr PB: Shipped Via: FedEX Ground Remarks Sample # (lab only)
MW-803	G	GW		7/15	1245	1		X			
MW-803 MS/MSD	G	GW		7/15	1255	1		X			
DUPLICATE L	G	GW		7/15	1250	1		X			
MW-804	G	GW		7/15	1200	1			X		

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

Remarks: _____

Samples returned via: ___ UPS ___ FedEx ___ Courier _____ Tracking # _____

Relinquished by: (Signature) *[Signature]* Date: 7/15 Time: 1630
 Received by: (Signature) _____ Trip Blank Received: Yes/No Yes
 HCL/MeOH TBR

Relinquished by: (Signature) _____ Date: _____ Time: _____
 Received by: (Signature) _____ Temp: 15.7 °C Bottles Received: 19

Relinquished by: (Signature) _____ Date: _____ Time: _____
 Received for lab by: (Signature) *[Signature]* Date: 7/16/22 Time: 0900
 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

Company Name/Address: **SCS Engineers - KS**
 8575 West 110th Street
 Suite 100
 Overland Park, KS 66210

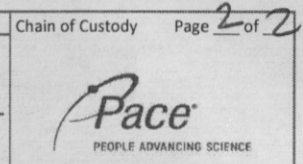
Billing Information:
Accounts Payable
 8575 W. 110th Street
 Suite 100
 Overland Park, KS 66210

Report to:
Jason Franks

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

Project Description:
Evergy La Cygne Gen Station GW 2022-23

City/State Collected:
 Please Circle:
 PT MT CT ET



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>

Client Project # **27217233.22-I**

Lab Project # **AQUAOPKS-LACYGNE**

Site/Facility ID #

P.O. #

Quote #

Date Results Needed

No. of Cntrs

Phone: **913-681-0030**

Collected by (print): **A Thompson**

Collected by (signature): *[Signature]*

Immediately Packed on Ice N Y

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

Analysis / Container / Preservative			
Pres	Chk		
Calcium	250mlHDPE-HNO3		
Chloride	125mlHDPE-NoPres		
Fluoride, SO4	125mlHDPE-NoPres		
Sulfate	125mlHDPE-NoPres		

SDG # **1515914**

Table #

Acctnum: **AQUAOPKS**

Template: **T136292**

Prelogin: **P937598**

PM: **206 - Jeff Carr**

PB:

Shipped Via:

Remarks

Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Calcium	Chloride	Fluoride, SO4	Sulfate								
MW-701	Grab	GW		7/15	1445	1					X							
MW-704	G	GW		7/15	1400	1		X										
MW-704 MS/MSD	G	GW		7/15	1405	1		X										
DUPLICATE U1	G	GW		7/15	1410	1		X										
MW-707B	G	GW		7/15	1055	2	X		X									
MW-707B MS/MSD	G	GW		7/15	1100	2	X		X									
DUPLICATE U2	G	GW		7/15	1105	2	X		X									

* 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: Y N

COC Signed/Accurate: Y N

Bottles arrive intact: Y N

Correct bottles used: Y N

Sufficient volume sent: Y N

If Applicable

VOA Zero Headspace: Y N

Preservation Correct/Checked: Y N

RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature) *[Signature]* Date: **7/15** Time: **1630**

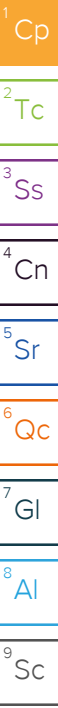
Received by: (Signature) *[Signature]* Trip Blank Received: **Yes/No**
 Yes / No
 GC/ MeOH TBR

Temp: **57** °C Bottles Received: **14**

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

Received for lab by: (Signature) *[Signature]* Date: **7/16/22** Time: **0900**

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



SCS Engineers - KS

Sample Delivery Group: L1527024
Samples Received: 08/18/2022
Project Number: 27217233.22-I
Description: Eveyrg La Cygne Gen Station GW 2022-23

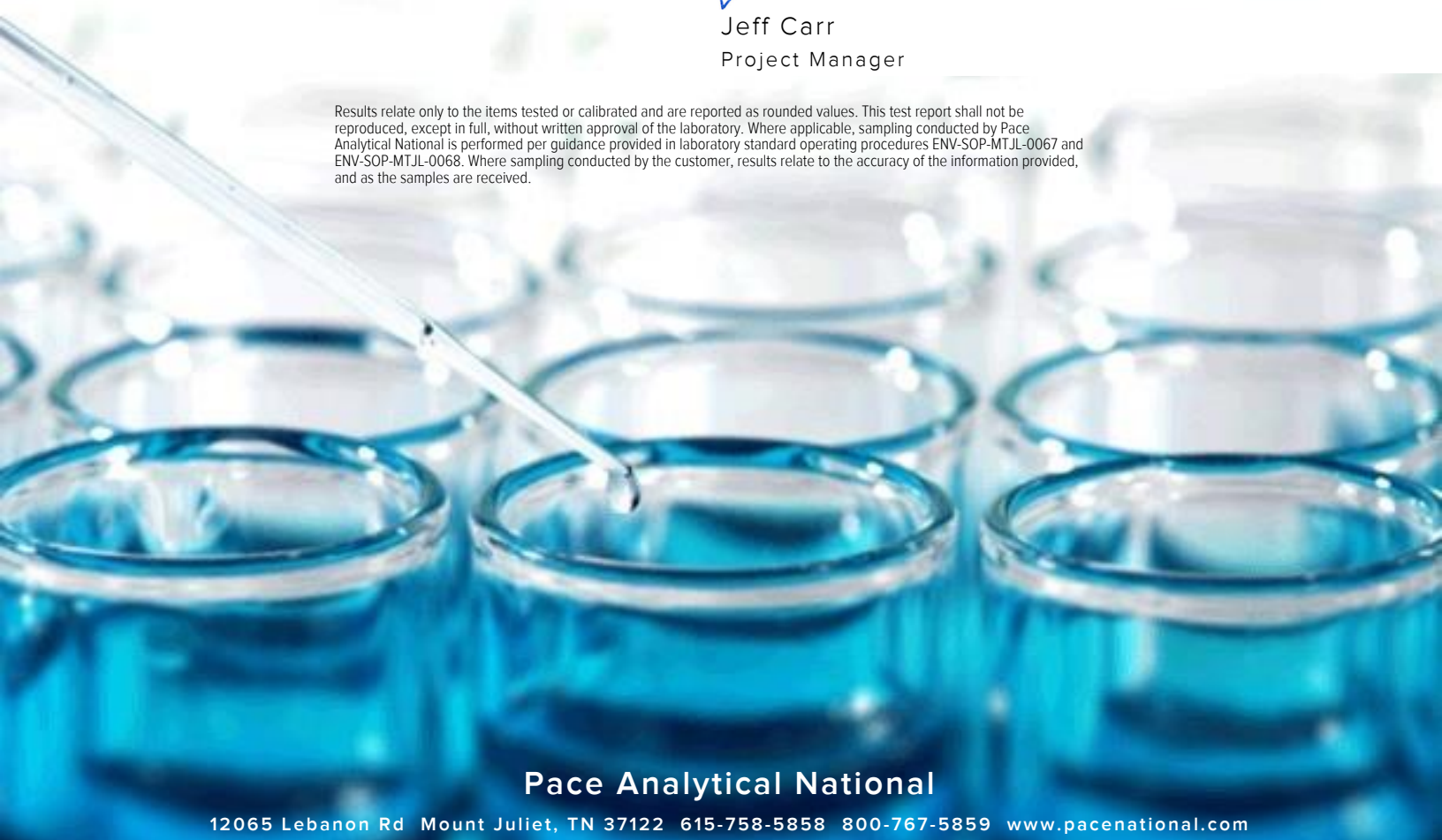
Report To: Jason Franks
8575 West 110th Street
Suite 100
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr
Project Manager

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



Pace Analytical National

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

TABLE OF CONTENTS

Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	² Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³ Ss
MW-701 L1527024-01	5	
MW-704 L1527024-02	6	⁴ Cn
DUPLICATE U1 L1527024-03	7	⁵ Sr
MW-707B L1527024-04	8	
DUPLICATE U2 L1527024-05	9	⁶ Qc
Qc: Quality Control Summary	10	
Wet Chemistry by Method 9056A	10	⁷ Gl
Gl: Glossary of Terms	12	⁸ Al
Al: Accreditations & Locations	13	
Sc: Sample Chain of Custody	14	⁹ Sc

SAMPLE SUMMARY

MW-701 L1527024-01 GW

Collected by Whit Martin Collected date/time 08/17/22 14:15 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1913563	1	08/20/22 01:36	08/20/22 01:36	LBR	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-704 L1527024-02 GW

Collected by Whit Martin Collected date/time 08/17/22 15:00 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1913563	1	08/20/22 02:12	08/20/22 02:12	LBR	Mt. Juliet, TN

DUPLICATE U1 L1527024-03 GW

Collected by Whit Martin Collected date/time 08/17/22 15:00 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1913563	1	08/20/22 03:06	08/20/22 03:06	LBR	Mt. Juliet, TN

MW-707B L1527024-04 GW

Collected by Whit Martin Collected date/time 08/17/22 12:35 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1913563	100	08/20/22 03:24	08/20/22 03:24	LBR	Mt. Juliet, TN

DUPLICATE U2 L1527024-05 GW

Collected by Whit Martin Collected date/time 08/17/22 12:35 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1913563	100	08/20/22 04:53	08/20/22 04:53	LBR	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	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	84500		594	5000	1	08/20/2022 01:36	WG1913563

- 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	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	93900		379	1000	1	08/20/2022 02:12	WG1913563

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

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	92300		379	1000	1	08/20/2022 03:06	WG1913563

- 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	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	4440000	<u>V</u>	59400	500000	100	08/20/2022 03:24	WG1913563

- 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	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	4430000		59400	500000	100	08/20/2022 04:53	WG1913563

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

Method Blank (MB)

(MB) R3828510-1 08/19/22 10:01

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1526973-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1526973-01 08/19/22 21:26 • (DUP) R3828510-3 08/19/22 21:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	3820	3880	1	1.59		15
Sulfate	1250	1260	1	0.144	J	15

L1527024-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1527024-01 08/20/22 01:36 • (DUP) R3828510-4 08/20/22 01:54

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	46900	46900	1	0.0657		15
Sulfate	84500	85500	1	1.15		15

Laboratory Control Sample (LCS)

(LCS) R3828510-2 08/19/22 10:19

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	39300	98.1	80.0-120	
Sulfate	40000	39400	98.5	80.0-120	

L1527024-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1527024-02 08/20/22 02:12 • (MS) R3828510-5 08/20/22 02:30 • (MSD) R3828510-6 08/20/22 02:48

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	50000	93900	137000	137000	86.5	86.2	1	80.0-120			0.115	15
Sulfate	50000	156000	196000	196000	79.8	79.8	1	80.0-120	J6	J6	0.00910	15

L1527024-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1527024-04 08/20/22 03:24 • (MS) R3828510-7 08/20/22 03:42 • (MSD) R3828510-8 08/20/22 04:35

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 %
Chloride	50000	189000	201000	203000	22.8	26.4	100	80.0-120	<u>J6</u>	<u>J6</u>	0.900	15
Sulfate	50000	4440000	3530000	3540000	0.000	0.000	100	80.0-120	<u>V</u>	<u>V</u>	0.222	15

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

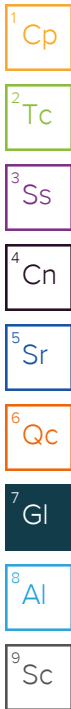
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Company Name/Address: **SCS Engineers - KS**
 8575 West 110th Street
 Suite 100
 Overland Park, KS 66210

Billing Information:
 Accounts Payable
 8575 W. 110th Street
 Suite 100
 Overland Park, KS 66210

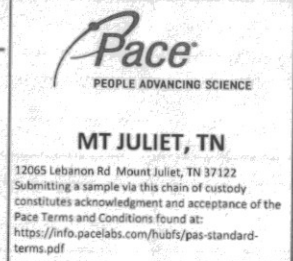
Report to:
 Jason Franks

Project Description:
 Energy La Cygne Gen Station GW 2022-23

City/State Collected: **La Cygne, KS**

Please Circle:
 PT MT **CT** ET

Chain of Custody Page **1** of **1**



Client Project # **27217233.22-1**

Lab Project # **AQUAOPKS-LACYGNE**

Site/Facility ID #

P.O. #

Quote #

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**

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Sulfate 125mlHDPE-NoPres	Analysis / Container / Preservative
MW-701	Grab	GW		8/17/22	1415	1		X	
MW-704	Grab	GW		8/17/22	1500	1	X		
MW-704 MS/MSD	Grab	GW		8/17/22	1500	1	X		
DUPLICATE U1	Grab	GW		8/17/22	1500	1	X		
MW-707B	Grab	GW		8/17/22	1235	1		X	
MW-707B MS/MSD	Grab	GW		8/17/22	1235	1		X	
DUPLICATE U2	Grab	GW		8/17/22	1235	1		X	

SDG # **U527024**

B231

Matrix: **AQUAOPKS**

Template: **T136292**

Prelogin: **P943784**

PM: **206 - Jeff Carr**

PB:

Shipped Via:

Remarks	Sample # (lab only)
	-01
	-02
	-02
	-03
	-04
	-04
	-05

* 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 5389**

Relinquished by: (Signature) **Whit Martin** Date: **8/17/22** Time: **1635**

Received by: (Signature) **M. Welch** Date: **8/18/22** Time: **845**

Temp: **5.6 ± 0.56 °C** Trip Blank Received: **1** Yes/No **1** HCl/MeOH TBR

Flow: Other:

pH: Temp:

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

If preservation required by Login: Date/Time

Condition: **NCF / OK**

SCS Engineers - KS

Sample Delivery Group: L1527030
Samples Received: 08/18/2022
Project Number: 27217233.22 - I
Description: Everage La Cygne Gen Station GW 2022-23

Report To: Jason Franks
8575 West 110th Street
Suite 100
Overland Park, KS 66210

Entire Report Reviewed By:












Jason Romer
Project Manager

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

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

TABLE OF CONTENTS

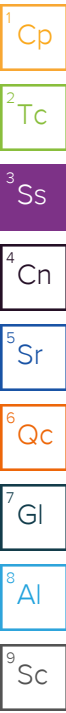
Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	4	
Sr: Sample Results	5	
MW-701 L1527030-01	5	
MW-704 L1527030-02	6	
MW-707B L1527030-03	7	
MW-13 L1527030-04	8	
MW-803 L1527030-05	9	
MW-804 L1527030-06	10	
Qc: Quality Control Summary	11	
Wet Chemistry by Method 2320 B-2011	11	
Wet Chemistry by Method 9056A	12	
Metals (ICP) by Method 6010D	15	
Gl: Glossary of Terms	17	
Al: Accreditations & Locations	18	
Sc: Sample Chain of Custody	19	

SAMPLE SUMMARY

MW-701 L1527030-01 GW

Collected by Whit Martin Collected date/time 08/17/22 14:15 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 11:56	08/28/22 11:56	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1913564	1	08/20/22 15:16	08/20/22 15:16	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 14:25	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/26/22 08:02	ABL	Mt. Juliet, TN



MW-704 L1527030-02 GW

Collected by Whit Martin Collected date/time 08/17/22 15:00 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 12:00	08/28/22 12:00	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1913564	10	08/20/22 15:33	08/20/22 15:33	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 15:29	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/26/22 08:16	ABL	Mt. Juliet, TN

MW-707B L1527030-03 GW

Collected by Whit Martin Collected date/time 08/17/22 12:35 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 12:04	08/28/22 12:04	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1915346	5	08/24/22 02:56	08/24/22 02:56	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 15:32	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	5	08/24/22 22:32	08/26/22 08:19	ABL	Mt. Juliet, TN

MW-13 L1527030-04 GW

Collected by Whit Martin Collected date/time 08/17/22 13:30 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 12:07	08/28/22 12:07	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1913564	50	08/20/22 16:07	08/20/22 16:07	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 15:35	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/26/22 08:21	ABL	Mt. Juliet, TN

MW-803 L1527030-05 GW

Collected by Whit Martin Collected date/time 08/17/22 11:45 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 12:18	08/28/22 12:18	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 15:38	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/26/22 08:29	ABL	Mt. Juliet, TN

MW-804 L1527030-06 GW

Collected by Whit Martin Collected date/time 08/17/22 10:55 Received date/time 08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 12:22	08/28/22 12:22	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1913564	1	08/20/22 16:24	08/20/22 16:24	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 15:41	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/26/22 08:32	ABL	Mt. Juliet, TN

CASE NARRATIVE

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



Jason Romer
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	375000		8450	20000	1	08/28/2022 11:56	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 11:56	WG1917623

Sample Narrative:

L1527030-01 WG1917623: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	48600		379	1000	1	08/20/2022 15:16	WG1913564

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	42000		79.3	1000	1	08/25/2022 14:25	WG1914436
Magnesium	8910		85.3	1000	1	08/26/2022 08:02	WG1914436
Potassium	3230		261	2000	1	08/25/2022 14:25	WG1914436
Sodium	153000	V	504	3000	1	08/25/2022 14:25	WG1914436

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	869000		8450	20000	1	08/28/2022 12:00	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 12:00	WG1917623

Sample Narrative:

L1527030-02 WG1917623: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	154000		5940	50000	10	08/20/2022 15:33	WG1913564

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	19800		79.3	1000	1	08/25/2022 15:29	WG1914436
Magnesium	15600		85.3	1000	1	08/26/2022 08:16	WG1914436
Potassium	5630		261	2000	1	08/25/2022 15:29	WG1914436
Sodium	405000		504	3000	1	08/25/2022 15:29	WG1914436

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	548000		8450	20000	1	08/28/2022 12:04	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 12:04	WG1917623

Sample Narrative:

L1527030-03 WG1917623: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	194000		1900	5000	5	08/24/2022 02:56	WG1915346

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	285000		79.3	1000	1	08/25/2022 15:32	WG1914436
Magnesium	510000		426	5000	5	08/26/2022 08:19	WG1914436
Potassium	19200		1300	10000	5	08/26/2022 08:19	WG1914436
Sodium	1070000		2520	15000	5	08/26/2022 08:19	WG1914436

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

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	346000		8450	20000	1	08/28/2022 12:07	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 12:07	WG1917623

Sample Narrative:

L1527030-04 WG1917623: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfate	1440000		29700	250000	50	08/20/2022 16:07	WG1913564

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	339000		79.3	1000	1	08/25/2022 15:35	WG1914436
Magnesium	159000		85.3	1000	1	08/26/2022 08:21	WG1914436
Potassium	2930		261	2000	1	08/25/2022 15:35	WG1914436
Sodium	118000		504	3000	1	08/25/2022 15:35	WG1914436

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	506000		8450	20000	1	08/28/2022 12:18	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 12:18	WG1917623

Sample Narrative:

L1527030-05 WG1917623: Endpoint pH 4.5

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Calcium	37900		79.3	1000	1	08/25/2022 15:38	WG1914436
Magnesium	31100		85.3	1000	1	08/26/2022 08:29	WG1914436
Potassium	4760		261	2000	1	08/25/2022 15:38	WG1914436
Sodium	143000		504	3000	1	08/25/2022 15:38	WG1914436

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

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	479000		8450	20000	1	08/28/2022 12:22	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 12:22	WG1917623

Sample Narrative:

L1527030-06 WG1917623: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	30000		379	1000	1	08/20/2022 16:24	WG1913564

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Calcium	59900		79.3	1000	1	08/25/2022 15:41	WG1914436
Magnesium	22000		85.3	1000	1	08/26/2022 08:32	WG1914436
Potassium	2720		261	2000	1	08/25/2022 15:41	WG1914436
Sodium	113000		504	3000	1	08/25/2022 15:41	WG1914436

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3831272-2 08/28/22 11:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		8450	20000
Alkalinity,Carbonate	U		8450	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1526287-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1526287-01 08/28/22 11:38 • (DUP) R3831272-3 08/28/22 11:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	150000	151000	1	0.636		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

L1527219-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1527219-07 08/28/22 13:00 • (DUP) R3831272-4 08/28/22 13:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	164000	162000	1	1.13		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3829381-1 08/20/22 10:51

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1527025-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1527025-02 08/20/22 13:00 • (DUP) R3829381-3 08/20/22 13:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	51500	51500	1	0.0293		15
Sulfate	32800	32800	1	0.0207		15

L1527056-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1527056-07 08/20/22 20:04 • (DUP) R3829381-6 08/20/22 20:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	27000	27000	1	0.0969		15
Sulfate	9890	9890	1	0.0374		15

Laboratory Control Sample (LCS)

(LCS) R3829381-2 08/20/22 11:08

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	40200	101	80.0-120	
Sulfate	40000	41100	103	80.0-120	

L1527025-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1527025-02 08/20/22 13:00 • (MS) R3829381-4 08/20/22 13:34 • (MSD) R3829381-5 08/20/22 13:51

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	50000	51500	101000	101000	98.1	98.9	1	80.0-120	<u>E</u>	<u>E</u>	0.373	15
Sulfate	50000	32800	82700	83100	99.8	101	1	80.0-120			0.480	15

L1527056-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1527056-07 08/20/22 20:04 • (MS) R3829381-7 08/20/22 20:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	50000	27000	77800	101	1	80.0-120	
Sulfate	50000	9890	61200	103	1	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3830099-1 08/23/22 20:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1528159-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1528159-05 08/24/22 00:01 • (DUP) R3830099-3 08/24/22 00:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	U	U	1	0.000		15

L1528223-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1528223-05 08/24/22 01:28 • (DUP) R3830099-5 08/24/22 02:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	7000	6910	1	1.30		15

Laboratory Control Sample (LCS)

(LCS) R3830099-2 08/23/22 21:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	40000	100	80.0-120	

L1528159-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1528159-05 08/24/22 00:01 • (MS) R3830099-4 08/24/22 00:26

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	U	51200	102	1	80.0-120	

L1528223-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1528223-05 08/24/22 01:28 • (MS) R3830099-6 08/24/22 02:18 • (MSD) R3830099-7 08/24/22 02:31

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	50000	7000	57700	57200	101	100	1	80.0-120			0.909	15

Method Blank (MB)

(MB) R3830657-1 08/25/22 14:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Calcium	U		79.3	1000
Potassium	U		261	2000
Sodium	U		504	3000

¹Cp

²Tc

³Ss

⁴Cn

Method Blank (MB)

(MB) R3830803-1 08/26/22 07:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Magnesium	U		85.3	1000

⁵Sr

⁶Qc

Laboratory Control Sample (LCS)

(LCS) R3830657-2 08/25/22 14:22

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Calcium	10000	9060	90.6	80.0-120	
Potassium	10000	9080	90.8	80.0-120	
Sodium	10000	9210	92.1	80.0-120	

⁷Gl

⁸Al

Laboratory Control Sample (LCS)

(LCS) R3830803-2 08/26/22 08:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Magnesium	10000	9710	97.1	80.0-120	

⁹Sc

L1527030-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1527030-01 08/25/22 14:25 • (MS) R3830657-4 08/25/22 14:31 • (MSD) R3830657-5 08/25/22 14:34

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Calcium	10000	42000	50100	50300	80.8	82.2	1	75.0-125			0.280	20
Potassium	10000	3230	12600	12800	94.0	95.7	1	75.0-125			1.37	20
Sodium	10000	153000	157000	158000	42.7	48.5	1	75.0-125	∨	∨	0.366	20

L1527030-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1527030-01 08/26/22 08:02 • (MS) R3830803-4 08/26/22 08:08 • (MSD) R3830803-5 08/26/22 08:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Magnesium	10000	8910	18400	18400	94.6	94.5	1	75.0-125			0.0764	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

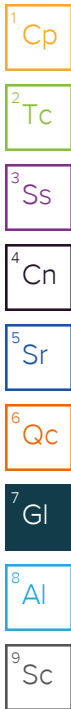
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
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 West 110th Street
Suite 100
Overland Park, KS 66210

Report to:
Jason Franks

Project Description:
Energy La Cygne Gen Station GW 2022-23

City/State Collected: **La Cygne, KS**

Please Circle:
PT MT **CT** ET

Phone: **913-681-0030**

Client Project #
27217233.22 - I

Lab Project #
AQUAOPKS-LACYGNE

Collected by (print):
Whit Martin

Site/Facility ID #

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Date Results Needed

Std

Immediately Packed on Ice N Y X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALKBI	ALKA	125miHDPE-NoPres	Ca, K, Mg, Na - 6010	250miHDPE-HNO3	Chloride - 9056	125miHDPE-NoPres	SO4 - 9056	125miHDPE-NoPres
MW-701	Grab	GW		8/17/22	1415	3	X	X	X						
MW-704	Grab	GW		8/17/22	1500	3	X	X					X		
MW-707B	Grab	GW		8/17/22	1235	3	X	X	X						
MW-13	Grab	GW		8/17/22	1330	3	X	X					X		
MW-803	Grab	GW		8/17/22	1145	2	X	X							
MW-804	Grab	GW		8/17/22	1055	3	X	X	X						

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

Remarks:

Samples returned via:
 UPS FedEx Courier

Tracking # **5300 4294 5389**

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
IF Applicable
VOA Zero HeadSpace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)

[Signature]

Date:

8/17/22

Time:

1635

Received by: (Signature)

[Signature]

Trip Blank Received: Yes/No
HCL/MeOH
TBR

Temp: °C Bottles Received: 5.6 to 5.4 17

Relinquished by: (Signature)

Relinquished by: (Signature)

Date:

8/18/22

Time:

845

Received for lab by: (Signature)

[Signature]

Date: 8/18/22 Time: 845

Hold:

OK

Condition:

NCF / OK

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pres
Chk

Billing Information:
Accounts Payable
8575 W. 110th Street
Suite 100
Overland Park, KS 66210

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



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 # **U527030**
B233

Acctnum: **AQUAOPKS**

Template: **T152974**

Prelogin: **P943786**

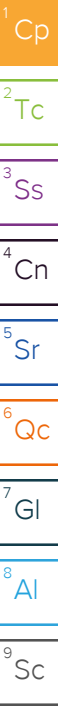
PM: **206 - Jeff Carr**

PB:

Shipped Via:

Remarks | Sample # (lab only)

-01
-02
-03
-04
-05
-06



SCS Engineers - KS

Sample Delivery Group: L1556301
Samples Received: 11/10/2022
Project Number: 27217233.22-A
Description: Everage La Cygne Gen Station GW 2022-23

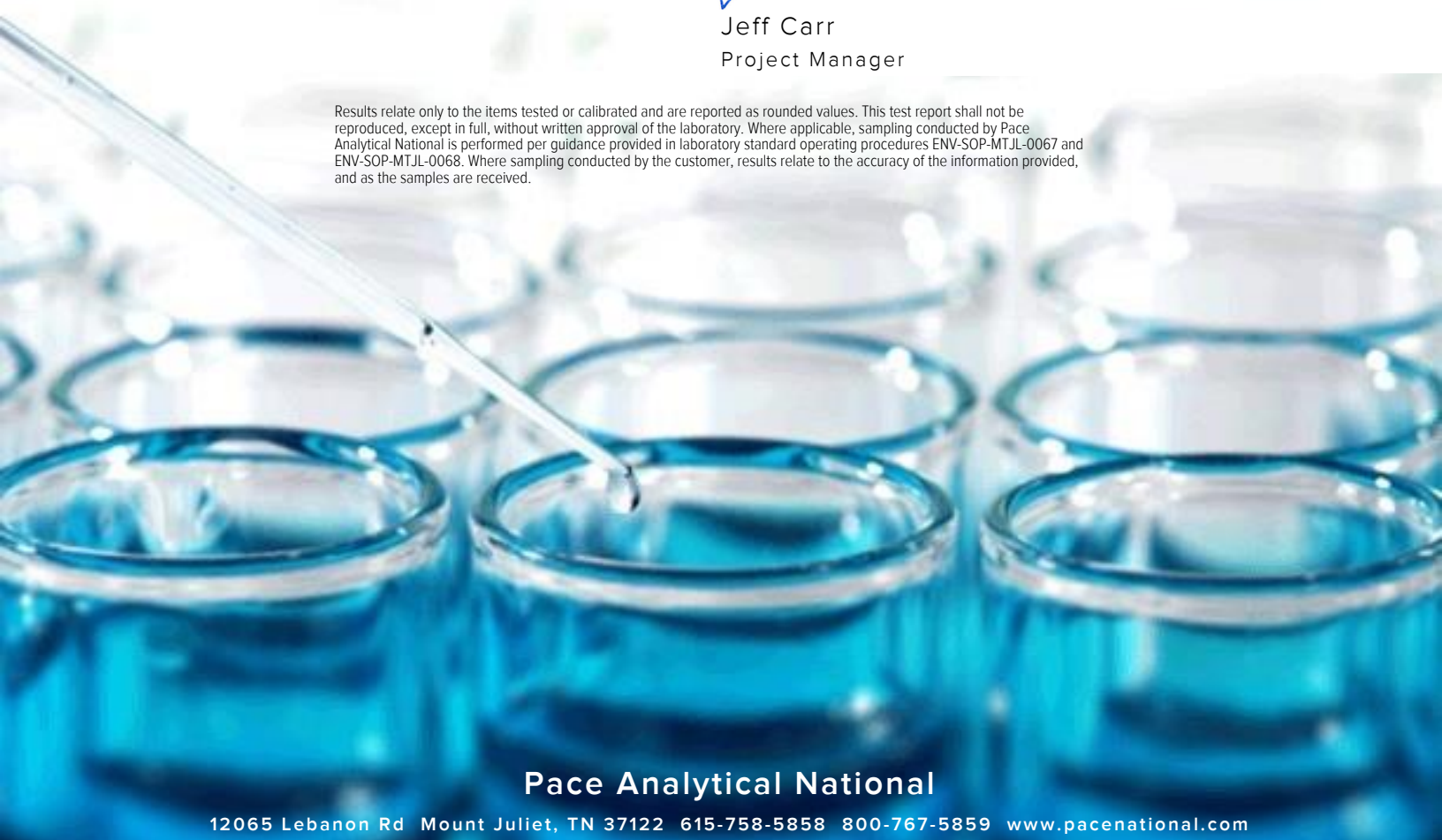
Report To: Jason Franks
8575 West 110th Street
Suite 100
Overland Park, KS 66210

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.

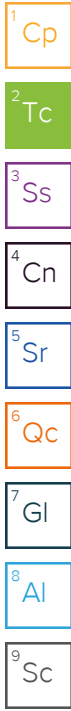


Pace Analytical National

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-6 L1556301-01	7
MW-7 L1556301-02	8
MW-11 L1556301-03	9
MW-701 L1556301-04	10
MW-702 L1556301-05	11
MW-703 L1556301-06	12
MW-704 L1556301-07	13
MW-705 L1556301-08	14
MW-706 L1556301-09	15
MW-707B L1556301-10	16
MW-708 L1556301-11	17
TW-1 L1556301-12	18
DUPLICATE L1556301-13	19
Qc: Quality Control Summary	20
Gravimetric Analysis by Method 2540 C-2011	20
Wet Chemistry by Method 9056A	22
Metals (ICP) by Method 6010D	25
Gl: Glossary of Terms	27
Al: Accreditations & Locations	28
Sc: Sample Chain of Custody	29

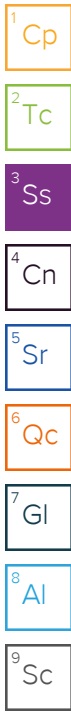


SAMPLE SUMMARY

MW-6 L1556301-01 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 11:20
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 11:32	11/15/22 11:32	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:46	KMG	Mt. Juliet, TN



MW-7 L1556301-02 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 11:55
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 12:08	11/15/22 12:08	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:49	KMG	Mt. Juliet, TN

MW-11 L1556301-03 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 14:45
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 12:26	11/15/22 12:26	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1960807	5	11/17/22 12:09	11/17/22 12:09	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:57	KMG	Mt. Juliet, TN

MW-701 L1556301-04 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 10:45
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 12:44	11/15/22 12:44	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 19:00	KMG	Mt. Juliet, TN

MW-702 L1556301-05 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 11:10
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 13:01	11/15/22 13:01	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959200	1	11/14/22 21:11	11/17/22 01:10	ABL	Mt. Juliet, TN

MW-703 L1556301-06 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 11:40
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 14:49	11/15/22 14:49	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 19:03	KMG	Mt. Juliet, TN

SAMPLE SUMMARY

MW-704 L1556301-07 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 13:40
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 15:07	11/15/22 15:07	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 19:06	KMG	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

MW-705 L1556301-08 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 12:25
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 15:25	11/15/22 15:25	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959200	1	11/14/22 21:11	11/17/22 01:21	ABL	Mt. Juliet, TN

4 Cn

5 Sr

6 Qc

MW-706 L1556301-09 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 12:58
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 15:42	11/15/22 15:42	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	5	11/15/22 16:00	11/15/22 16:00	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959200	1	11/14/22 21:11	11/17/22 01:24	ABL	Mt. Juliet, TN

7 Gl

8 Al

9 Sc

MW-707B L1556301-10 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 14:00
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	10	11/15/22 16:18	11/15/22 16:18	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	100	11/15/22 16:36	11/15/22 16:36	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959200	1	11/14/22 21:11	11/17/22 01:27	ABL	Mt. Juliet, TN

MW-708 L1556301-11 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 14:25
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 16:54	11/15/22 16:54	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959200	1	11/14/22 21:11	11/17/22 01:30	ABL	Mt. Juliet, TN

TW-1 L1556301-12 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 13:30
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 18:22	11/15/22 18:22	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959200	1	11/14/22 21:11	11/17/22 01:38	ABL	Mt. Juliet, TN

SAMPLE SUMMARY

DUPLICATE L1556301-13 GW

Collected by: Matt Vander Putten
 Collected date/time: 11/09/22 11:15
 Received date/time: 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959420	1	11/15/22 18:40	11/15/22 18:40	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959200	1	11/14/22 21:11	11/17/22 01:41	ABL	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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1000000		20000	1	11/16/2022 11:32	WG1960383

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	195000		379	1000	1	11/15/2022 11:32	WG1959420
Fluoride	525		64.0	150	1	11/15/2022 11:32	WG1959420
Sulfate	109000		594	5000	1	11/15/2022 11:32	WG1959420

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1140		20.0	200	1	11/24/2022 18:46	WG1959197
Calcium	75300		79.3	1000	1	11/24/2022 18:46	WG1959197

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	882000		20000	1	11/16/2022 11:32	WG1960383

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	94700		379	1000	1	11/15/2022 12:08	WG1959420
Fluoride	1140		64.0	150	1	11/15/2022 12:08	WG1959420
Sulfate	2290	J	594	5000	1	11/15/2022 12:08	WG1959420

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1560		20.0	200	1	11/24/2022 18:49	WG1959197
Calcium	20200		79.3	1000	1	11/24/2022 18:49	WG1959197

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	918000		20000	1	11/16/2022 11:32	WG1960383

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	68500		379	1000	1	11/15/2022 12:26	WG1959420
Fluoride	479		64.0	150	1	11/15/2022 12:26	WG1959420
Sulfate	208000		2970	25000	5	11/17/2022 12:09	WG1960807

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1120		20.0	200	1	11/24/2022 18:57	WG1959197
Calcium	55500		79.3	1000	1	11/24/2022 18:57	WG1959197

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	545000		10000	1	11/16/2022 11:32	WG1960383

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	46400		379	1000	1	11/15/2022 12:44	WG1959420
Fluoride	594		64.0	150	1	11/15/2022 12:44	WG1959420
Sulfate	87800		594	5000	1	11/15/2022 12:44	WG1959420

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	905		20.0	200	1	11/24/2022 19:00	WG1959197
Calcium	42400		79.3	1000	1	11/24/2022 19:00	WG1959197

- 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	620000		13300	1	11/16/2022 11:32	WG1960383

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	47200		379	1000	1	11/15/2022 13:01	WG1959420
Fluoride	1260		64.0	150	1	11/15/2022 13:01	WG1959420
Sulfate	1470	J	594	5000	1	11/15/2022 13:01	WG1959420

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1790		20.0	200	1	11/17/2022 01:10	WG1959200
Calcium	14600		79.3	1000	1	11/17/2022 01:10	WG1959200

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	870000		20000	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	111000		379	1000	1	11/15/2022 14:49	WG1959420
Fluoride	1310		64.0	150	1	11/15/2022 14:49	WG1959420
Sulfate	1240	J	594	5000	1	11/15/2022 14:49	WG1959420

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Boron	1810		20.0	200	1	11/24/2022 19:03	WG1959197
Calcium	18600		79.3	1000	1	11/24/2022 19:03	WG1959197

- 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	1090000		25000	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	91100		379	1000	1	11/15/2022 15:07	WG1959420
Fluoride	742		64.0	150	1	11/15/2022 15:07	WG1959420
Sulfate	163000		594	5000	1	11/15/2022 15:07	WG1959420

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	2020		20.0	200	1	11/24/2022 19:06	WG1959197
Calcium	22000		79.3	1000	1	11/24/2022 19:06	WG1959197

- 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	930000		20000	1	11/16/2022 10:43	WG1960390

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	138000		379	1000	1	11/15/2022 15:25	WG1959420
Fluoride	878		64.0	150	1	11/15/2022 15:25	WG1959420
Sulfate	39000		594	5000	1	11/15/2022 15:25	WG1959420

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	2110		20.0	200	1	11/17/2022 01:21	WG1959200
Calcium	26900		79.3	1000	1	11/17/2022 01:21	WG1959200

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	1060000		25000	1	11/16/2022 11:32	WG1960383

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	250000		1900	5000	5	11/15/2022 16:00	WG1959420
Fluoride	923		64.0	150	1	11/15/2022 15:42	WG1959420
Sulfate	12700		594	5000	1	11/15/2022 15:42	WG1959420

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	2080		20.0	200	1	11/17/2022 01:24	WG1959200
Calcium	23200		79.3	1000	1	11/17/2022 01:24	WG1959200

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	6160000		100000	1	11/16/2022 11:32	WG1960383

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	161000		3790	10000	10	11/15/2022 16:18	WG1959420
Fluoride	1310	J	640	1500	10	11/15/2022 16:18	WG1959420
Sulfate	5060000		59400	500000	100	11/15/2022 16:36	WG1959420

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1880		20.0	200	1	11/17/2022 01:27	WG1959200
Calcium	377000		79.3	1000	1	11/17/2022 01:27	WG1959200

- 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	1590000		50000	1	11/16/2022 10:43	WG1960390

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	46400		379	1000	1	11/15/2022 16:54	WG1959420
Fluoride	595		64.0	150	1	11/15/2022 16:54	WG1959420
Sulfate	9470		594	5000	1	11/15/2022 16:54	WG1959420

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1390		20.0	200	1	11/17/2022 01:30	WG1959200
Calcium	28300		79.3	1000	1	11/17/2022 01:30	WG1959200

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	908000		20000	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	40300		379	1000	1	11/15/2022 18:22	WG1959420
Fluoride	377		64.0	150	1	11/15/2022 18:22	WG1959420
Sulfate	72200		594	5000	1	11/15/2022 18:22	WG1959420

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Boron	1420		20.0	200	1	11/17/2022 01:38	WG1959200
Calcium	23800		79.3	1000	1	11/17/2022 01:38	WG1959200

- 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	631000		13300	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	47200		379	1000	1	11/15/2022 18:40	WG1959420
Fluoride	1270		64.0	150	1	11/15/2022 18:40	WG1959420
Sulfate	1530	J	594	5000	1	11/15/2022 18:40	WG1959420

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Boron	1770		20.0	200	1	11/17/2022 01:41	WG1959200
Calcium	14800		79.3	1000	1	11/17/2022 01:41	WG1959200

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

Method Blank (MB)

(MB) R3863459-1 11/16/22 11:32

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

1 Cp

2 Tc

3 Ss

L1556386-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1556386-04 11/16/22 11:32 • (DUP) R3863459-3 11/16/22 11:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	426000	450000	1	5.48	J3	5

4 Cn

5 Sr

L1556386-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1556386-05 11/16/22 11:32 • (DUP) R3863459-4 11/16/22 11:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	569000	587000	1	3.11		5

6 Qc

7 Gl

8 Al

Laboratory Control Sample (LCS)

(LCS) R3863459-2 11/16/22 11:32

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8520000	96.8	77.3-123	

9 Sc

Method Blank (MB)

(MB) R3863782-1 11/16/22 10:43

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

1 Cp

2 Tc

3 Ss

L1556298-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1556298-01 11/16/22 10:43 • (DUP) R3863782-3 11/16/22 10:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	533000	566000	1	6.01	J3	5

4 Cn

5 Sr

6 Qc

L1556298-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1556298-03 11/16/22 10:43 • (DUP) R3863782-4 11/16/22 10:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	543000	575000	1	5.72	J3	5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3863782-2 11/16/22 10:43

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

Method Blank (MB)

(MB) R3861650-1 11/15/22 10:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	542	↓	379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1556301-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1556301-05 11/15/22 13:01 • (DUP) R3861650-3 11/15/22 13:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	47200	47100	1	0.285		15
Fluoride	1260	1290	1	1.62		15
Sulfate	1470	1500	1	1.71	↓	15

L1556585-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1556585-02 11/15/22 19:16 • (DUP) R3861650-6 11/15/22 19:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	46000	46000	1	0.0252		15
Fluoride	1210	1200	1	1.29		15
Sulfate	185000	185000	1	0.0152		15

Laboratory Control Sample (LCS)

(LCS) R3861650-2 11/15/22 10:56

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	39900	99.7	80.0-120	
Fluoride	8000	8350	104	80.0-120	
Sulfate	40000	39900	99.6	80.0-120	

L1556301-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1556301-05 11/15/22 13:01 • (MS) R3861650-4 11/15/22 14:13 • (MSD) R3861650-5 11/15/22 14:31

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	47200	97300	97400	100	100	1	80.0-120			0.100	15
Fluoride	5000	1260	6350	6350	102	102	1	80.0-120			0.0756	15
Sulfate	50000	1470	50900	51000	98.9	99.0	1	80.0-120			0.163	15

L1556585-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1556585-02 11/15/22 19:16 • (MS) R3861650-7 11/15/22 19:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	46000	95400	98.8	1	80.0-120	
Fluoride	5000	1210	6070	97.3	1	80.0-120	
Sulfate	50000	185000	228000	85.7	1	80.0-120	E

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3862462-1 11/17/22 10:25

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

¹Cp

²Tc

³Ss

L1558300-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1558300-01 11/17/22 15:07 • (DUP) R3862462-3 11/17/22 15:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	22400	22500	1	0.733		15

⁴Cn

⁵Sr

L1557939-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1557939-01 11/17/22 16:15 • (DUP) R3862462-5 11/17/22 16:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	6120	5840	1	4.72		15

⁶Qc

⁷Gl

⁸Al

Laboratory Control Sample (LCS)

(LCS) R3862462-2 11/17/22 10:38

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Sulfate	40000	38800	97.1	80.0-120	

⁹Sc

L1558300-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1558300-01 11/17/22 15:07 • (MS) R3862462-4 11/17/22 16:02

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	22400	66800	88.9	1	80.0-120	

L1557939-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1557939-01 11/17/22 16:15 • (MS) R3862462-6 11/17/22 16:43 • (MSD) R3862462-7 11/17/22 16:56

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	6120	52500	52100	92.8	92.0	1	80.0-120			0.728	15

Method Blank (MB)

(MB) R3865048-1 11/25/22 10:23

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Boron	U		20.0	200
Calcium	U		79.3	1000

Laboratory Control Sample (LCS)

(LCS) R3865048-2 11/25/22 10:25

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Boron	1000	970	97.0	80.0-120	
Calcium	10000	9760	97.6	80.0-120	

L1556231-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1556231-01 11/25/22 10:28 • (MS) R3865048-4 11/25/22 10:34 • (MSD) R3865048-5 11/25/22 10:36

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Boron	1000	50.0	1020	1010	97.4	96.0	1	75.0-125			1.36	20
Calcium	10000	19900	29100	29000	92.5	90.7	1	75.0-125			0.607	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3861953-1 11/17/22 01:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Boron	U		20.0	200
Calcium	U		79.3	1000

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3861953-2 11/17/22 01:08

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Boron	1000	995	99.5	80.0-120	
Calcium	10000	9950	99.5	80.0-120	

4 Cn

5 Sr

6 Qc

L1556301-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1556301-05 11/17/22 01:10 • (MS) R3861953-4 11/17/22 01:16 • (MSD) R3861953-5 11/17/22 01:18

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	%	%		%			%	%
Boron	1000	1790	2720	2730	93.5	94.7	1	75.0-125			0.452	20
Calcium	10000	14600	23300	23300	87.4	87.3	1	75.0-125			0.0571	20

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

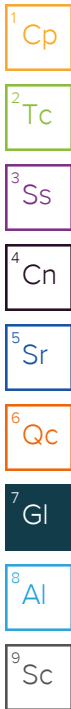
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.



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 West 110th Street
 Suite 100
 Overland Park, KS 66210

Billing Information:
Accounts Payable
 8575 W. 110th Street
 Suite 100
 Overland Park, KS 66210

Analysis / Container / Preservative
 Pres Chk



MT JULIET, TN

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

Report to:
Jason Franks

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

Project Description:
Evergy La Cygne Gen Station GW 2022-23

City/State, Collected:
La Cygne KS

Please Circle:
 PT MT ET

Phone: **913-681-0030**

Client Project #
27217233.22-A

Lab Project #
AQUAOPKS-LACYGNE

Collected by (print):
Matt Vander Putter

Site/Facility ID #

P.O. #

Collected by (signature):
Matt Vander Putter

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

Quote #

Immediately Packed on Ice N Y

Date Results Needed
Std

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

MW-6	Grab	GW	NA	11/09/22	1120	3
MW-7		GW			1155	3
MW-11		GW			1445	3
MW-701		GW			1043	3
MW-702		GW			1110	3
MW-703		GW			1140	3
MW-704		GW			1340	3
MW-705		GW			1225	3
MW-706		GW			1258	3
MW-707B		GW			1400	3

Anions (Cl, F, SO4)	125mlHDPE-NoPres	B, Ca - 6010 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres						
X	X	X							
X	X	X							
X	X	X							
X	X	X							
X	X	X							
X	X	X							
X	X	X							
X	X	X							
X	X	X							
X	X	X							

SDG # **C1556301**
F249
 Acctnum: **AQUAOPKS**
 Template: **T150678**
 Prelogin: **P958822**
 PM: **206 - Jeff Carr**
 PB:
 Shipped Via: **FedEX Ground**
 Remarks Sample # (lab only)

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

Remarks:
 pH _____ Temp _____
 Flow _____ Other _____
 Samples returned via:
 UPS FedEx Courier
 Tracking # **6094 5455 8004**

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)
Matt Vander Putter

Date: **11/09/22**

Time: **1700**

Received by: (Signature)

Trip Blank Received: Yes/No
 HCL/MeOH
 TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **1.9#0.9**
41

Bottles Received: **41**
 If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

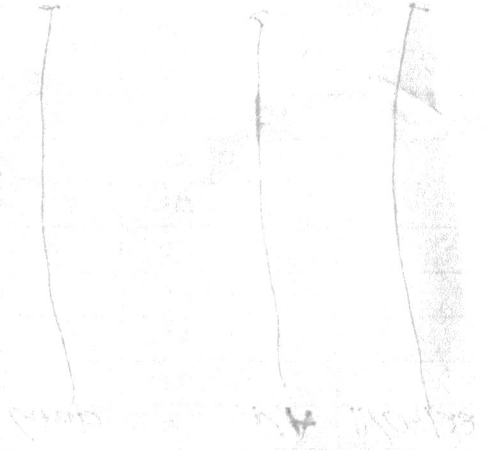
Time:

Received for lab by: (Signature)

Date: **11/10/22** Time: **0900**

Hold: Condition: **NCF 1/OK**

Handwritten text at the top left, possibly a date or reference number.



Vertical handwritten text located to the right of the diagram, possibly labels for the lines.

Handwritten text at the bottom left, possibly a signature or a note.

Handwritten text at the bottom center, possibly a date or reference number.

Company Name/Address:
SCS Engineers - KS

8575 West 110th Street
Suite 100
Overland Park, KS 66210

Report to:
Jason Franks

Project Description:
Energy La Cygne Gen Station GW 2022-23

City/State Collected: **La Cygne KS**

Please Circle PT MT ET

Phone: **913-681-0030**

Client Project #
27217233.22-A

Lab Project #
AQUAOPKS-LACYGNE

Collected by (print):
Matt VanderPutte

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

Quote #

Date Results Needed
5/10

Immediately Packed on Ice N Y

Pres Chk

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/hubfs/pas-standard-terms.pdf>

SDG # **L1556301**

Table #

Acctnum: **AQUAOPKS**

Template: **T150678**

Prelogin: **P958822**

PM: **206 - Jeff Carr**

PB:

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions (Cl, F, SO4)	125mIHDPPE-NoPres	B, Ca - 6010 250mIHDPPE-HNO3	TDS 250mIHDPPE-NoPres									
MW-708	Grab	GW	NA	11/09/22	1425	3	X	X	X										-11
TW-1	I	GW	I	I	1330	3	X	X	X										-12
DUPLICATE U	I	GW	I	I	1115	3	X	X	X										-13
MS/MSD	I	GW	I	I	1115	2	X	X											-14

* 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 #

6094 5455 8004

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

Relinquished by: (Signature)
Matt VanderPutte

Date: **11/09/22**

Time: **1700**

Received by: (Signature)

Trip Blank Received: Yes/No
 HCL/MeOH
 TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **4.9**
1.95
1.9

Bottles Received: **41**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: **11/09/22**
 Time: **0900**

Hold:

Condition: **NCF OK**

APPENDIX E

STATISTICAL ANALYSES

E.1 Fall 2021 Semiannual Detection Monitoring Statistical Analyses

E.2 Spring 2022 Semiannual Detection Monitoring Statistical Analyses

APPENDIX E.1

Fall 2021 Semiannual Detection Monitoring Statistical Analyses

MEMORANDUM

April 1, 2022

**To: La Cygne Generating Station
25166 East 2200 Road
La Cygne, Kansas 66040
Energys Metro, Inc.**



From: SCS Engineers

**RE: Determination of Statistically Significant Increases –
Upper AQC Impoundment
Fall 2021 Semiannual Detection Monitoring 40 CFR 257.94**

Statistical analysis of monitoring data from the groundwater monitoring system for the Upper AQC Impoundment at the La Cygne 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 18, 2021. Review and validation of the results from the November 2021 Detection Monitoring Event was completed on January 5, 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. Two rounds of verification sampling were conducted for certain constituents on January 27, 2022 and March 3, 2022.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-706.

Constituent/Monitoring Well	*UPL	Observation November 18, 2021	1st Verification January 27, 2022	2nd Verification March 3, 2022
MW-706				
Sulfate	8.79	16.8	15.8	16.7

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified an SSI above the background prediction limit for sulfate at monitoring well MW-706.

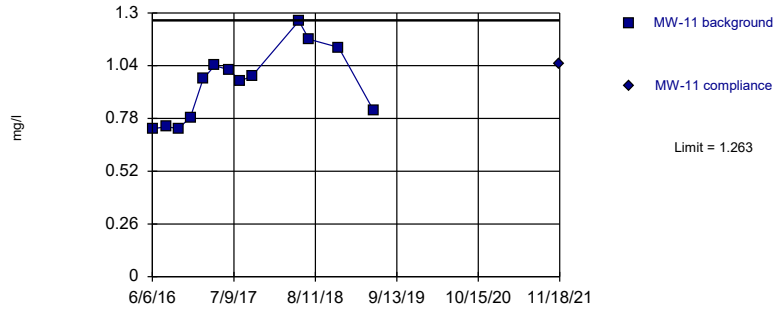
La Cygne Generating Station
Determination of Statistically Significant Increases
Upper AQC Impoundment
April 1, 2022

ATTACHMENT 1

Sanitas™ Output

Within Limit

Prediction Limit Intrawell Parametric



Prediction Limit

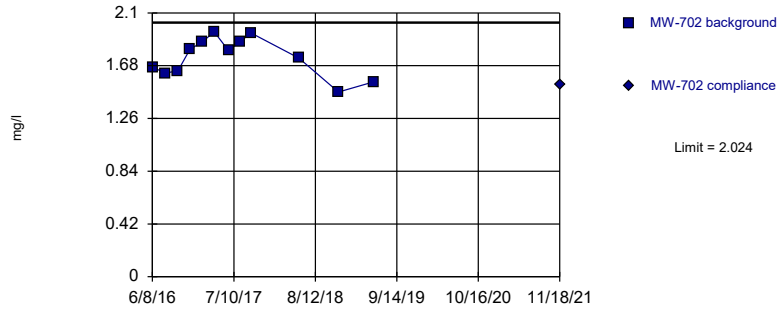
Constituent: BORON Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	0.729							
6/7/2016							1.07	
6/8/2016			1.18		1.61			
8/9/2016							1.06	
8/10/2016			1.23		1.71			
8/11/2016	0.739							
10/11/2016							1.04	
10/12/2016	0.73							
10/13/2016			1.18		1.64			
12/6/2016							1.07	
12/9/2016	0.786							
12/12/2016			1.18		1.6			
2/7/2017							1.05	
2/8/2017					1.65			
2/9/2017	0.974		1.22					
4/4/2017							1.06	
4/5/2017			1.19		1.61			
4/6/2017	1.04							
6/13/2017							1.01	
6/15/2017	1.02		1.19		1.64			
8/8/2017							1.07	
8/9/2017			1.21		1.65			
8/10/2017	0.965							
10/3/2017							1.09	
10/5/2017	0.988		1.11		1.59			
5/23/2018	1.26		1.23		1.65			
5/24/2018							1.06	
7/11/2018	1.17							
12/3/2018	1.13						0.979	
12/4/2018			1.18		1.62			
5/23/2019	0.819		1.19		1.6		0.992	
11/18/2021		1.05		1.14		1.56		0.907

Within Limit

Prediction Limit Intrawell Parametric

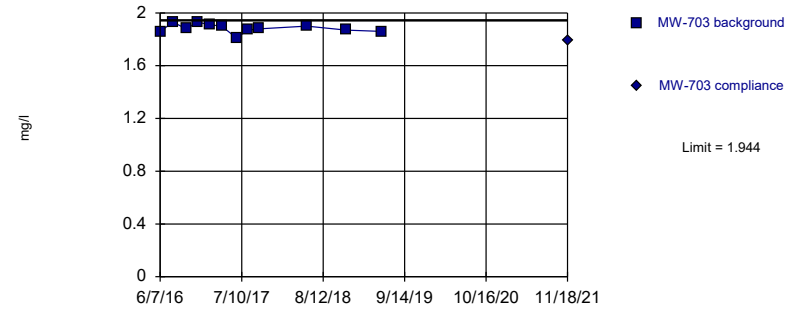


Background Data Summary: Mean=1.744, Std. Dev.=0.1551, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9541, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: BORON Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

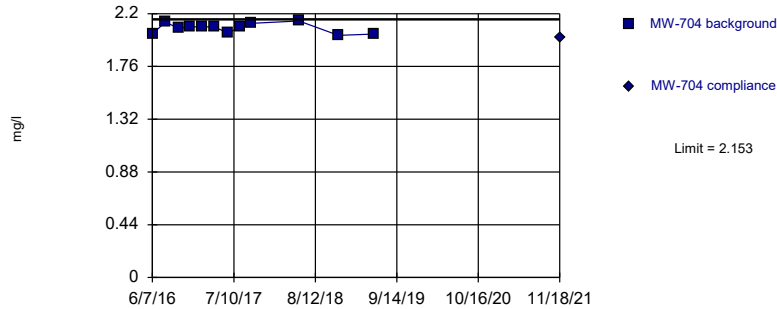


Background Data Summary: Mean=1.883, Std. Dev.=0.03367, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9397, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: BORON Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

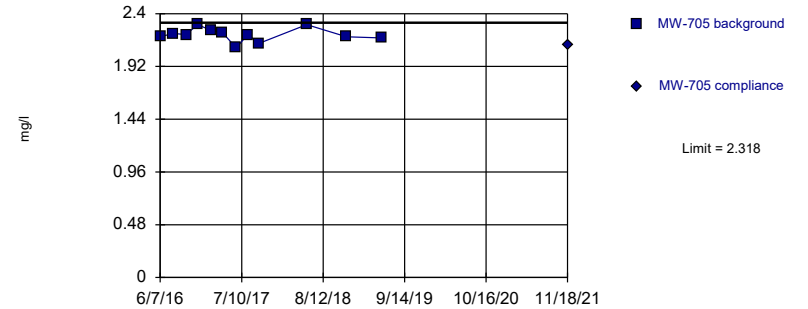


Background Data Summary: Mean=2.079, Std. Dev.=0.04078, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9087, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: BORON Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=2.208, Std. Dev.=0.06088, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9524, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: BORON Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

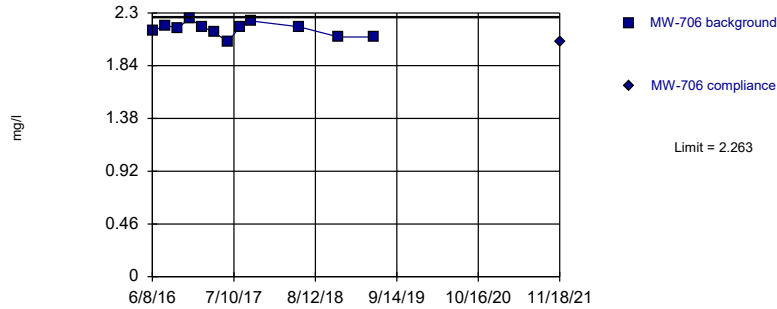
Prediction Limit

Constituent: BORON Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			1.86		2.03		2.19	
6/8/2016	1.67							
8/9/2016	1.62		1.93		2.13		2.22	
10/11/2016	1.64		1.88		2.08		2.21	
12/6/2016			1.93		2.09			
12/7/2016							2.3	
12/8/2016	1.81							
2/7/2017			1.91		2.09			
2/8/2017	1.87							
2/9/2017							2.25	
4/4/2017			1.9		2.09			
4/5/2017	1.95							
4/6/2017							2.23	
6/13/2017					2.04		2.09	
6/14/2017			1.81					
6/15/2017	1.8							
8/8/2017					2.09			
8/9/2017	1.87						2.21	
8/10/2017			1.87					
10/3/2017	1.94				2.12		2.13	
10/5/2017			1.88					
5/24/2018	1.74		1.9		2.14		2.3	
12/3/2018	1.47		1.87		2.02			
12/4/2018							2.19	
5/23/2019	1.55		1.86		2.03		2.18	
11/18/2021		1.53		1.79		2		2.12

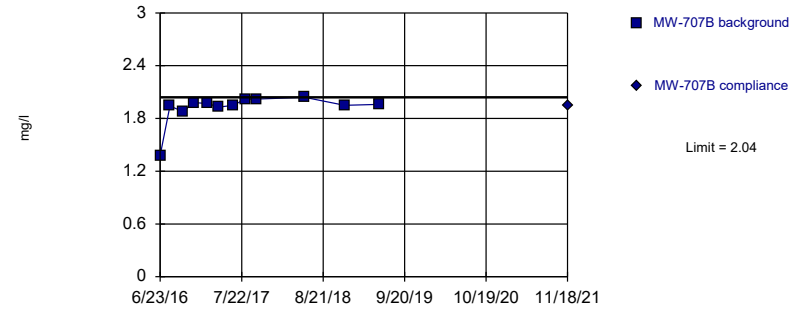
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=2.157, Std. Dev.=0.05898, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9577, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: BORON Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit Prediction Limit
Intrawell Non-parametric



Prediction Limit

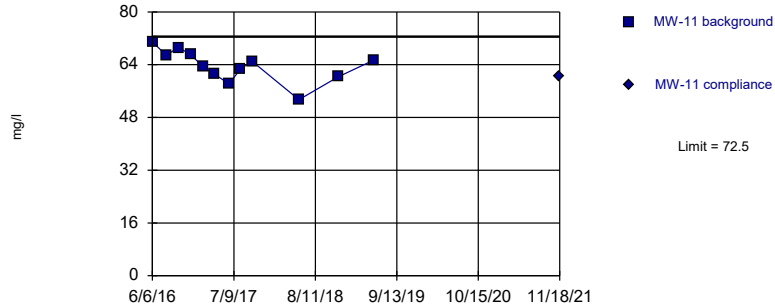
Constituent: BORON Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					1.37			
6/8/2016	2.14							
6/9/2016							1.47	
6/23/2016			1.38					
8/9/2016	2.19		1.94				1.54	
8/10/2016					1.44			
10/11/2016	2.17		1.88				1.6	
10/12/2016					1.47			
12/6/2016	2.25		1.98				1.67	
12/9/2016					1.44			
2/7/2017	2.18		1.97				1.64	
2/9/2017					1.51			
4/4/2017	2.13		1.93				1.68	
4/6/2017					1.48			
6/13/2017	2.05		1.95				1.53	
6/14/2017					1.36			
8/8/2017			2.02		1.44		1.6	
8/9/2017	2.18							
10/3/2017			2.02				1.65	
10/4/2017	2.23				1.49			
5/23/2018					1.45			
5/24/2018	2.18		2.04				1.67	
12/4/2018	2.09		1.95		1.41		1.48	
5/23/2019	2.09		1.96		1.31		1.47	
11/18/2021		2.05		1.94		1.37		1.45

Within Limit

Prediction Limit
Intrawell Parametric

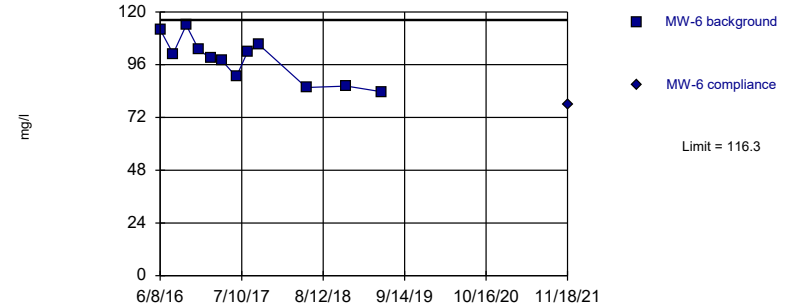


Background Data Summary: Mean=63.65, Std. Dev.=4.912, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.976, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

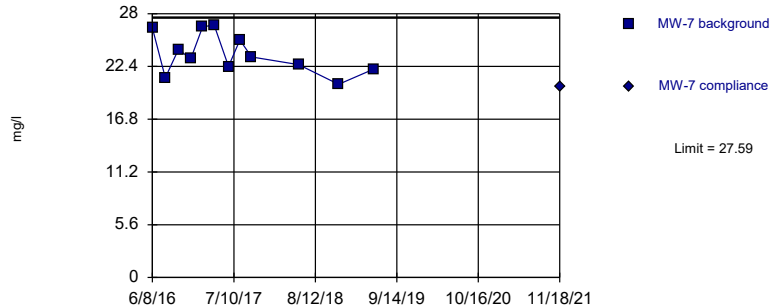


Background Data Summary: Mean=98.32, Std. Dev.=10.01, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.94, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

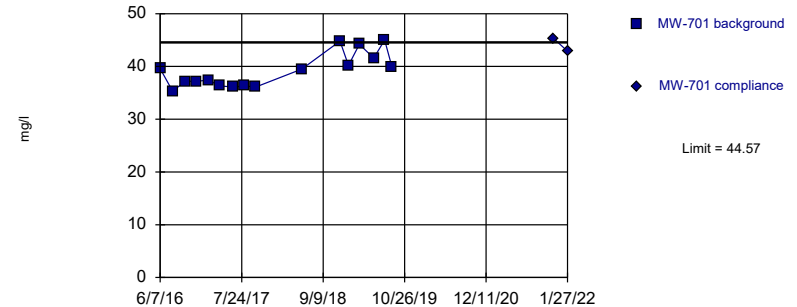


Background Data Summary: Mean=23.73, Std. Dev.=2.146, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9333, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=39.17, Std. Dev.=3.266, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8786, critical = 0.844. Kappa = 1.654 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

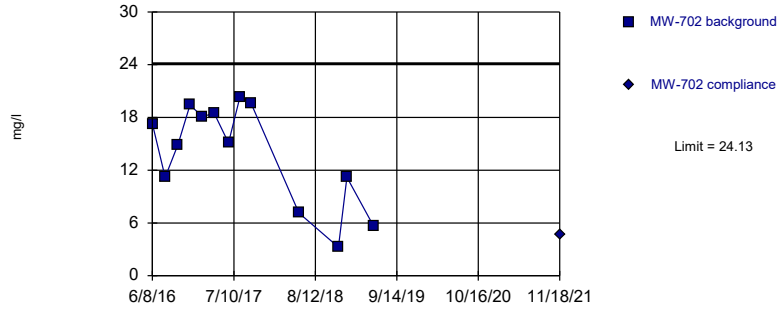
Constituent: CALCIUM Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	71							
6/7/2016							39.6	
6/8/2016			112		26.5			
8/9/2016							35.3	
8/10/2016			101		21.2			
8/11/2016	66.9							
10/11/2016							37.2	
10/12/2016	69.2							
10/13/2016			114		24.2			
12/6/2016							37.2	
12/9/2016	67.1							
12/12/2016			103		23.2			
2/7/2017							37.4	
2/8/2017					26.6			
2/9/2017	63.4		98.8					
4/4/2017							36.3	
4/5/2017			97.9		26.8			
4/6/2017	61.1							
6/13/2017							36.1	
6/15/2017	58.2		90.5		22.4			
8/8/2017							36.3	
8/9/2017			102		25.2			
8/10/2017	62.6							
10/3/2017							36.1	
10/5/2017	65.1		105		23.4			
5/23/2018	53.4		85.6		22.6			
5/24/2018							39.5	
12/3/2018	60.4						44.8	
12/4/2018			86.3		20.5			
1/15/2019							40.2	
3/11/2019							44.2	
5/23/2019	65.4		83.7		22.1		41.6	
7/17/2019							45	
8/23/2019							39.9	
11/18/2021		60.3		77.8		20.3		45.3
1/27/2022								42.9 1st Verification

Within Limit

Prediction Limit Intrawell Parametric

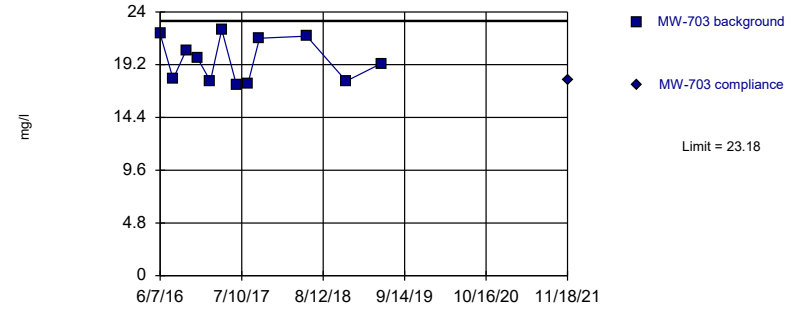


Background Data Summary: Mean=13.97, Std. Dev.=5.757, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8941, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

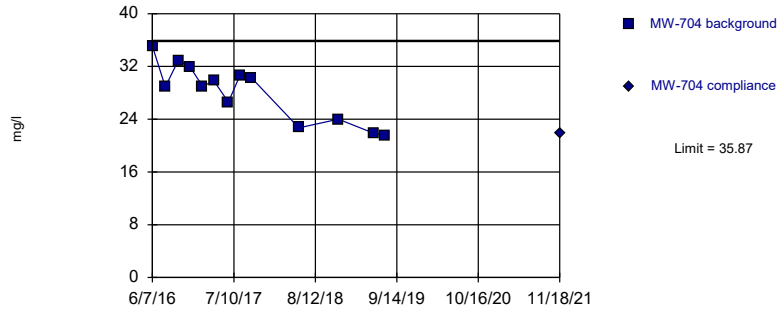


Background Data Summary: Mean=19.63, Std. Dev.=1.971, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8622, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

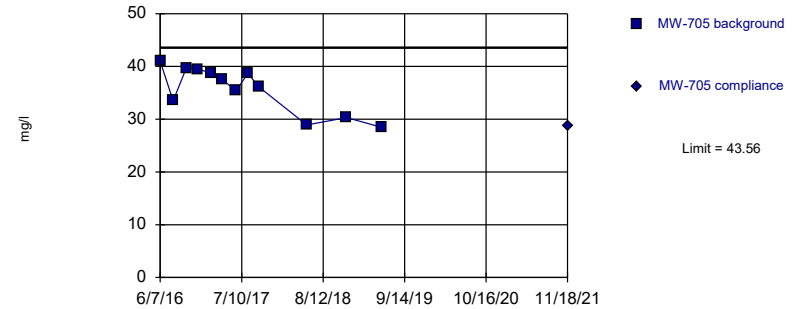


Background Data Summary: Mean=28.1, Std. Dev.=4.405, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9368, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=35.65, Std. Dev.=4.389, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.892, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

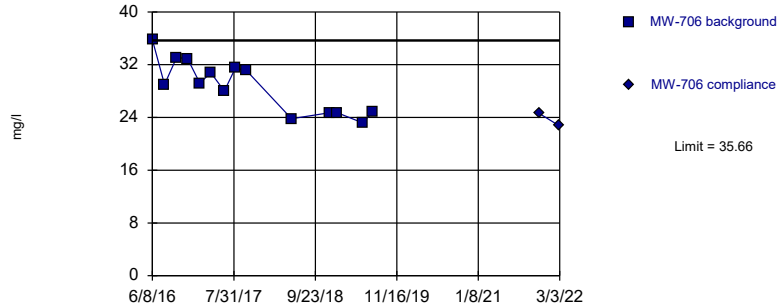
Constituent: CALCIUM Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			22		35.1		41	
6/8/2016	17.3							
8/9/2016	11.2		17.9		28.9		33.5	
10/11/2016	14.9		20.5		32.9		39.6	
12/6/2016			19.8		32			
12/7/2016							39.5	
12/8/2016	19.4							
2/7/2017			17.7		29			
2/8/2017	18.1							
2/9/2017							38.8	
4/4/2017			22.4		29.8			
4/5/2017	18.5							
4/6/2017							37.5	
6/13/2017					26.6		35.4	
6/14/2017			17.4					
6/15/2017	15.1							
8/8/2017					30.6			
8/9/2017	20.3						38.7	
8/10/2017			17.5					
10/3/2017	19.6				30.3		36.1	
10/5/2017			21.6					
5/24/2018	7.13		21.8		22.7		28.9	
12/3/2018	3.24		17.7		24			
12/4/2018							30.3	
1/14/2019	11.2							
5/23/2019	5.7		19.3		21.9		28.5	
7/17/2019					21.5			
11/18/2021		4.61		17.8		21.9		28.7

Within Limit

Prediction Limit
Intrawell Parametric

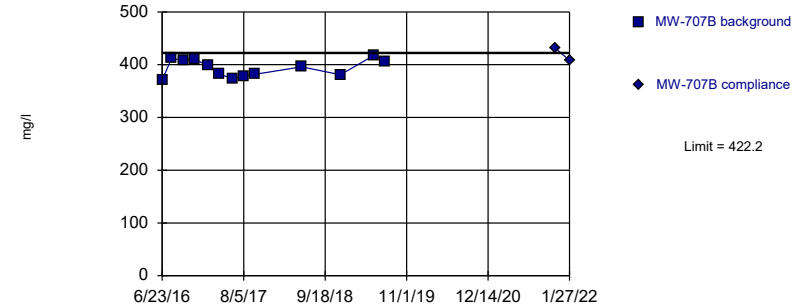


Background Data Summary: Mean=28.76, Std. Dev.=3.997, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9349, critical = 0.825. Kappa = 1.728 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

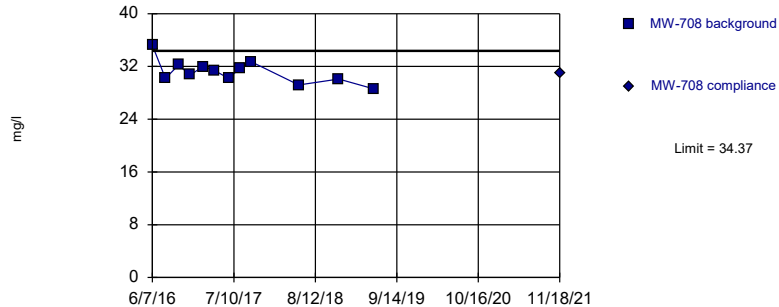


Background Data Summary: Mean=393.5, Std. Dev.=16.22, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9122, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Prediction Limit

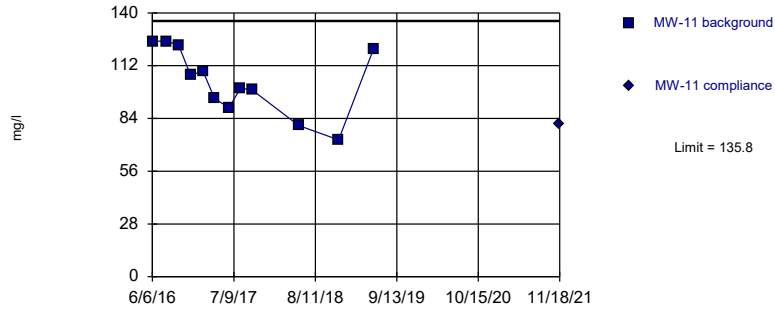
Constituent: CALCIUM Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					35.2			
6/8/2016	35.8							
6/9/2016							31	
6/23/2016			371					
8/9/2016	29		412				29.9	
8/10/2016					30.2			
10/11/2016	33.1		408				35.3	
10/12/2016					32.2			
12/6/2016	32.9		410				35.9	
12/9/2016					30.7			
2/7/2017	29.2		398				31.7	
2/9/2017					32			
4/4/2017	30.8		382				33	
4/6/2017					31.4			
6/13/2017	28		374				29.6	
6/14/2017					30.2			
8/8/2017			378		31.7		35.1	
8/9/2017	31.5							
10/3/2017			382				33.4	
10/4/2017	31.1				32.7			
5/23/2018					29.2			
5/24/2018	23.8		396				25.7	
12/4/2018	24.7		381		30.1		26.8	
1/15/2019	24.7							
5/23/2019	23.2		418		28.6		24.1	
7/17/2019	24.8		406					
11/18/2021		24.6		431		30.9		25.5
1/27/2022				408 1st Verification				
3/3/2022		22.7 Extra Sample						

Within Limit

Prediction Limit
Intrawell Parametric

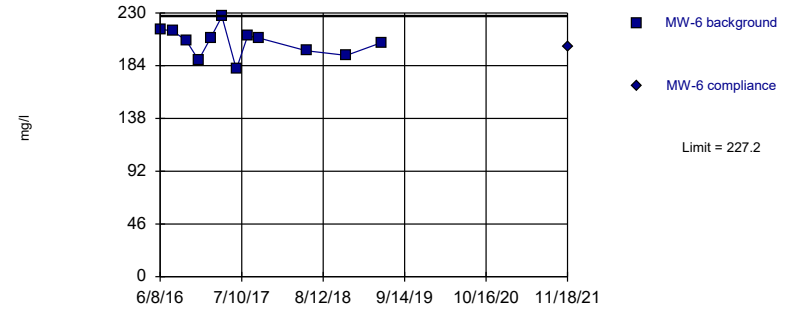


Background Data Summary: Mean=103.9, Std. Dev.=17.71, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.932, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

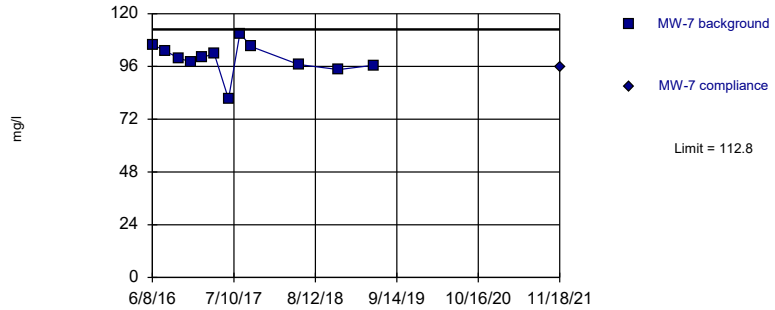


Background Data Summary: Mean=204.4, Std. Dev.=12.67, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9786, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

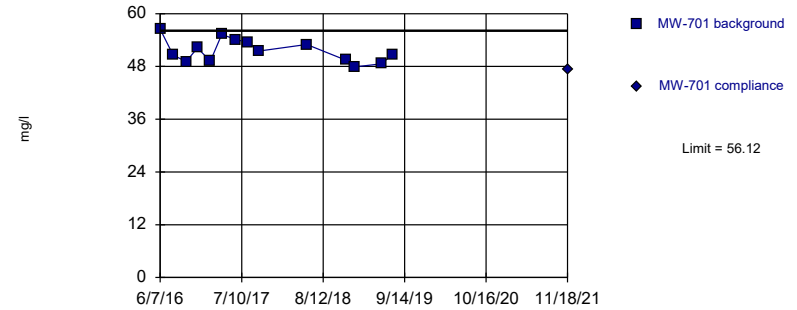


Background Data Summary: Mean=99.51, Std. Dev.=7.389, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9149, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=51.54, Std. Dev.=2.649, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9537, critical = 0.825. Kappa = 1.728 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

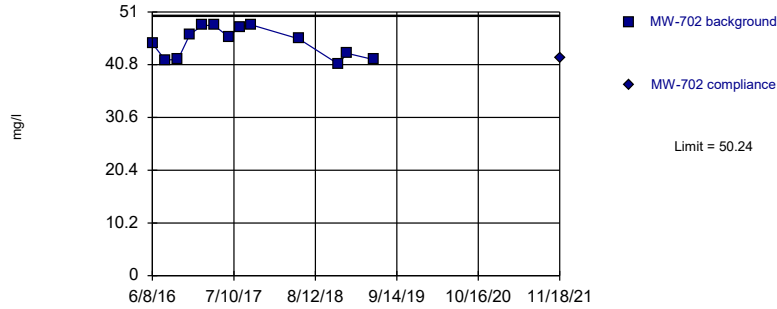
LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	125							
6/7/2016							56.5	
6/8/2016			216		106			
8/9/2016							50.6	
8/10/2016			214		103			
8/11/2016	125							
10/11/2016							49.1	
10/12/2016	123							
10/13/2016			206		99.9			
12/6/2016							52.2	
12/9/2016	107							
12/12/2016			189		98			
2/7/2017							49.2	
2/8/2017					100			
2/9/2017	109		208					
4/4/2017							55.3	
4/5/2017			227		102			
4/6/2017	94.5							
6/13/2017							54.1	
6/15/2017	89.7		181		81.2			
8/8/2017							53.5	
8/9/2017			210		111			
8/10/2017	100							
10/3/2017							51.5	
10/5/2017	99.2		208		105			
5/23/2018	80.2		197		96.9			
5/24/2018							53	
12/3/2018	72.6						49.4	
12/4/2018			193		94.6			
1/15/2019							47.9	
5/23/2019	121		204		96.5		48.6	
7/17/2019							50.7	
11/18/2021		80.9		201		95.9		47.4

Within Limit

Prediction Limit

Intrawell Parametric



Prediction Limit

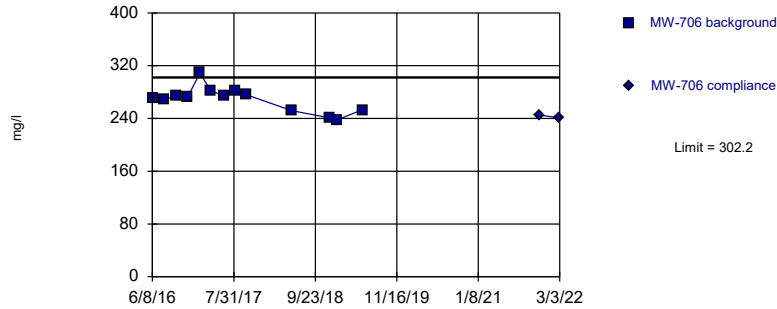
Constituent: CHLORIDE Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			103		82.5		142	
6/8/2016	44.9							
8/9/2016	41.7		106		83.4		136	
10/11/2016	41.8		105		80.8		138	
12/6/2016			107		82.9			
12/7/2016							134	
12/8/2016	46.7							
2/7/2017			109		82			
2/8/2017	48.4							
2/9/2017							135	
4/4/2017			115		84.7			
4/5/2017	48.4							
4/6/2017							131	
6/13/2017					81.8		136	
6/14/2017			102					
6/15/2017	46.2							
8/8/2017					82.1			
8/9/2017	48.1						139	
8/10/2017			22.3					
10/3/2017	48.5				85		138	
10/5/2017			111					
5/24/2018	45.8		108		85.9		135	
7/11/2018					87.1			
8/16/2018					83.3			
12/3/2018	40.9		106		82.2			
12/4/2018							132	
1/14/2019	43							
5/23/2019	41.8		109		87.2		135	
7/17/2019					89.7			
8/23/2019					89.2			
11/18/2021		42.2		114		88.1		141

Within Limit

Prediction Limit
Intrawell Parametric

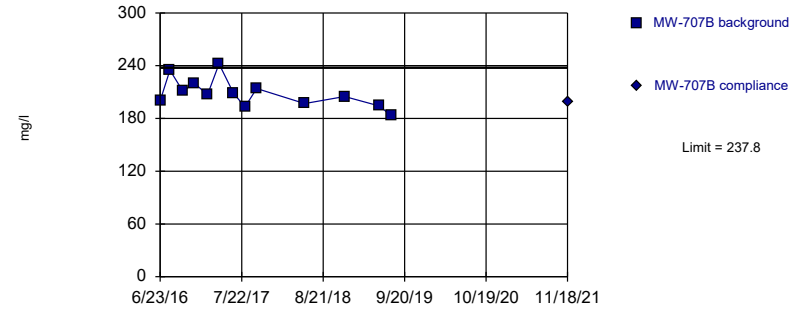


Background Data Summary: Mean=268.6, Std. Dev.=19.01, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9333, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

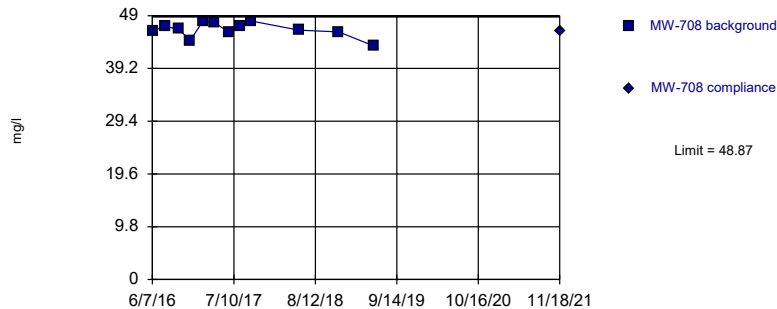


Background Data Summary: Mean=208.5, Std. Dev.=16.62, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9526, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Prediction Limit

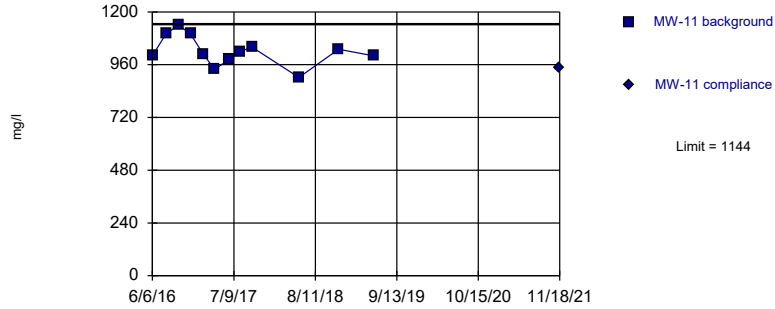
Constituent: CHLORIDE Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					46.2			
6/8/2016	270							
6/9/2016							41.5	
6/23/2016			200					
8/9/2016	269		235				42.9	
8/10/2016					47			
10/11/2016	274		211				43.4	
10/12/2016					46.5			
12/6/2016	272		220				45.1	
12/9/2016					44.4			
2/7/2017	309		207				44.5	
2/9/2017					48			
4/4/2017	282		242				45.7	
4/6/2017					47.7			
6/13/2017	274		209				44.3	
6/14/2017					46			
8/8/2017			193		47.1		43.5	
8/9/2017	282							
10/3/2017			214				44.9	
10/4/2017	276				48			
5/23/2018					46.3			
5/24/2018	252		197				44.5	
12/4/2018	241		205		46		41.4	
1/15/2019	238							
5/23/2019	253		194		43.4		41.8	
7/17/2019			183					
11/18/2021		245		199		46.2		40.2
3/3/2022		241 Extra Sample						

Within Limit

Prediction Limit Intrawell Parametric

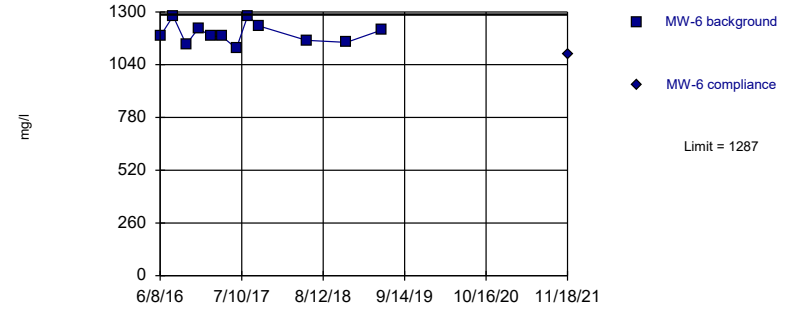


Background Data Summary: Mean=1022, Std. Dev.=67.75, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9655, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

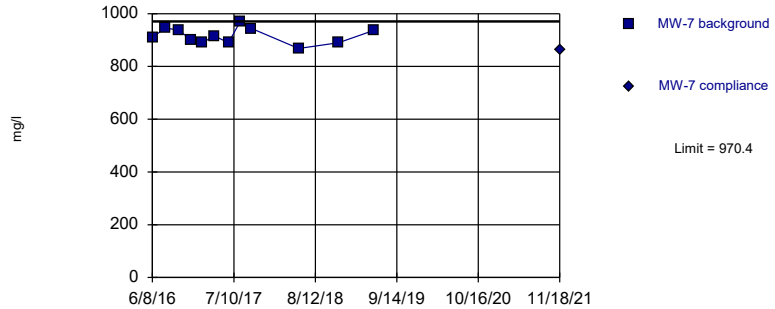


Background Data Summary: Mean=1194, Std. Dev.=51.43, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9382, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

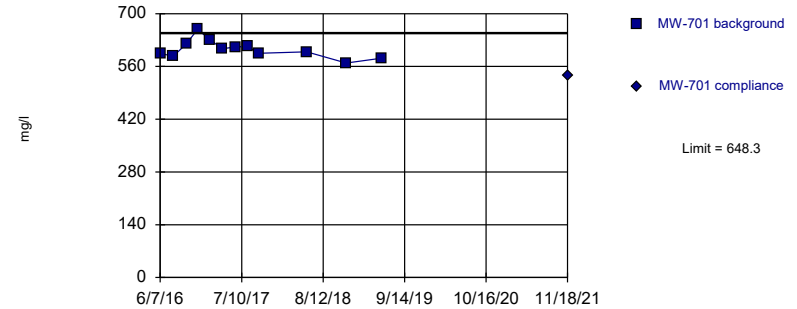


Background Data Summary: Mean=916.5, Std. Dev.=29.9, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9564, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=605.6, Std. Dev.=23.7, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9644, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:10 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

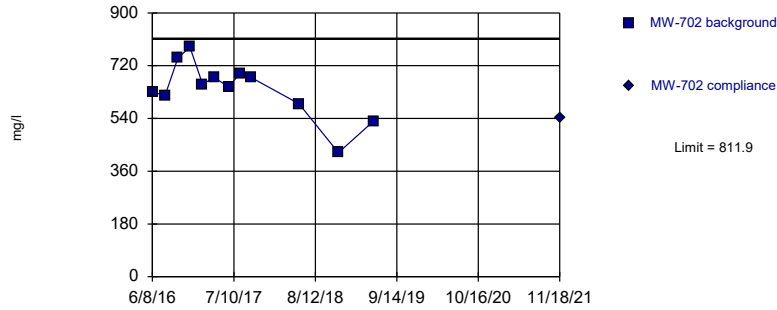
Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	1000							
6/7/2016							595	
6/8/2016			1180		910			
8/9/2016							587	
8/10/2016			1280		946			
8/11/2016	1100							
10/11/2016							619	
10/12/2016	1140							
10/13/2016			1140		938			
12/6/2016							658	
12/9/2016	1100							
12/12/2016			1220		902			
2/7/2017							631	
2/8/2017					890			
2/9/2017	1010		1180					
4/4/2017							607	
4/5/2017			1180		916			
4/6/2017	938							
6/13/2017							612	
6/15/2017	984		1120		890			
8/8/2017							613	
8/9/2017			1280		968			
8/10/2017	1020							
10/3/2017							595	
10/5/2017	1040		1230		944			
5/23/2018	902		1160		868			
5/24/2018							599	
12/3/2018	1030						569	
12/4/2018			1150		890			
5/23/2019	1000		1210		936		582	
11/18/2021		946		1090		864		534

Within Limit

Prediction Limit Intrawell Parametric

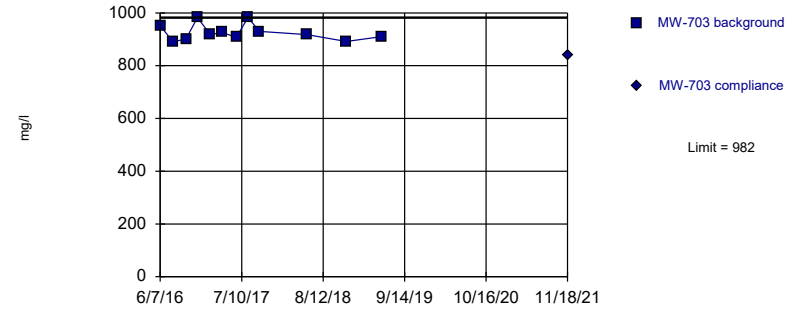


Background Data Summary: Mean=639.8, Std. Dev.=95.54, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9438, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

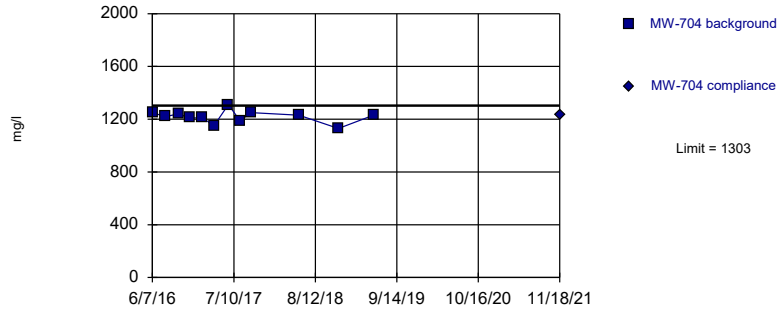


Background Data Summary: Mean=925.8, Std. Dev.=31.19, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8793, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

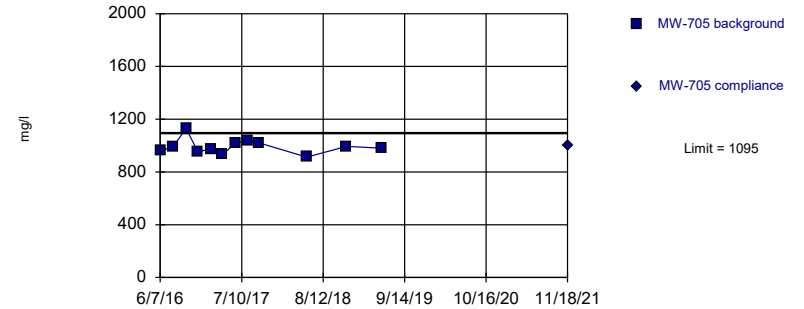


Background Data Summary: Mean=1218, Std. Dev.=47.26, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9502, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=992.2, Std. Dev.=57.06, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9257, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

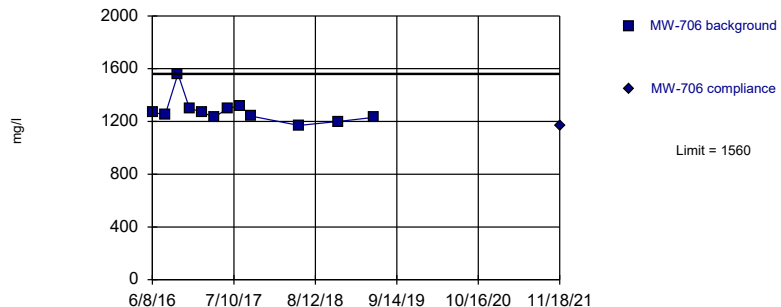
Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			952		1250		960	
6/8/2016	629							
8/9/2016	619		890		1220		992	
10/11/2016	747		902		1240		1130	
12/6/2016			982		1210			
12/7/2016							958	
12/8/2016	783							
2/7/2017			918		1210			
2/8/2017	657							
2/9/2017							968	
4/4/2017			926		1150			
4/5/2017	680							
4/6/2017							932	
6/13/2017					1310		1020	
6/14/2017			908					
6/15/2017	648							
8/8/2017					1190			
8/9/2017	692						1040	
8/10/2017			982					
10/3/2017	680				1250		1020	
10/5/2017			930					
5/24/2018	590		918		1230		912	
12/3/2018	423		892		1130			
12/4/2018							994	
5/23/2019	530		910		1230		980	
11/18/2021		541		840		1230		1000

Within Limit

Prediction Limit Intrawell Non-parametric



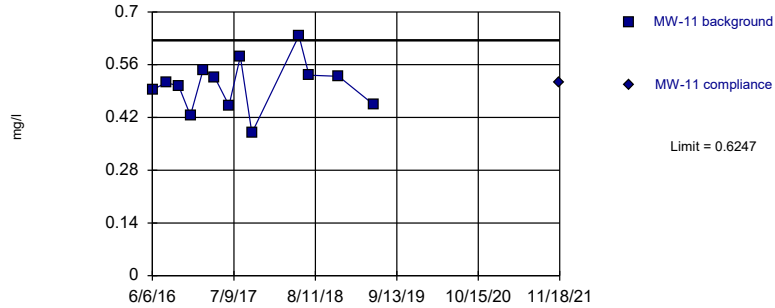
Prediction Limit

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 5:15 PM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					651			
6/8/2016	1270							
6/9/2016							1010	
6/23/2016			770					
8/9/2016	1250		8420				976	
8/10/2016					881			
10/11/2016	1560		6160				1050	
10/12/2016					684			
12/6/2016	1300		5370				1080	
12/9/2016					639			
2/7/2017	1270		6070				1120	
2/9/2017					679			
4/4/2017	1230		7890				1020	
4/6/2017					623			
6/13/2017	1300		6910				1030	
6/14/2017					653			
8/8/2017			7640		649		1010	
8/9/2017	1320							
10/3/2017			7690				1050	
10/4/2017	1240				645			
5/23/2018					639			
5/24/2018	1170		7260				1000	
12/4/2018	1200		8080		633		962	
5/23/2019	1230		8310		651		1050	
11/18/2021		1170		6140		641		994

Within Limit

Prediction Limit
Intrawell Parametric

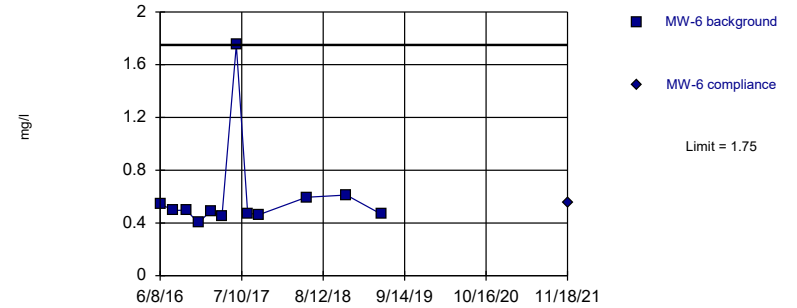


Background Data Summary: Mean=0.5055, Std. Dev.=0.06751, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.981, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: FLUORIDE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Non-parametric

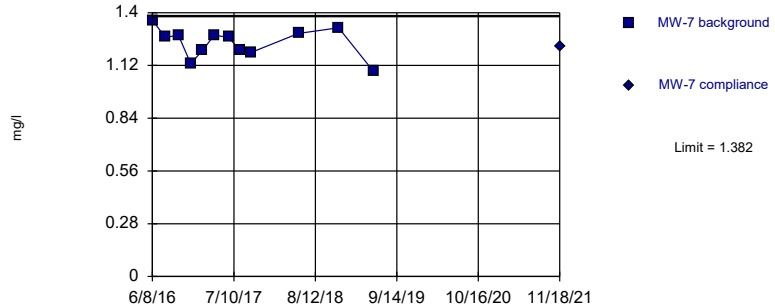


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3).

Constituent: FLUORIDE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

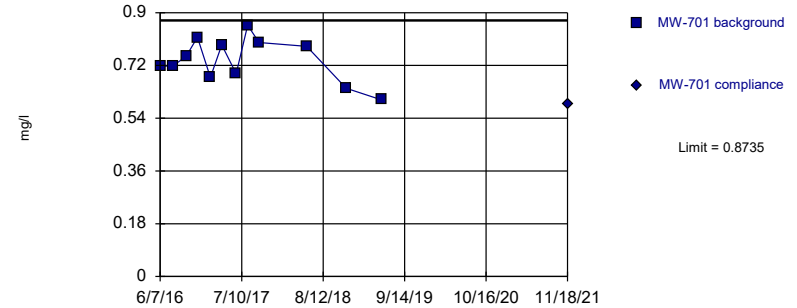


Background Data Summary: Mean=1.24, Std. Dev.=0.07897, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9444, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: FLUORIDE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.7374, Std. Dev.=0.07554, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.977, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: FLUORIDE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

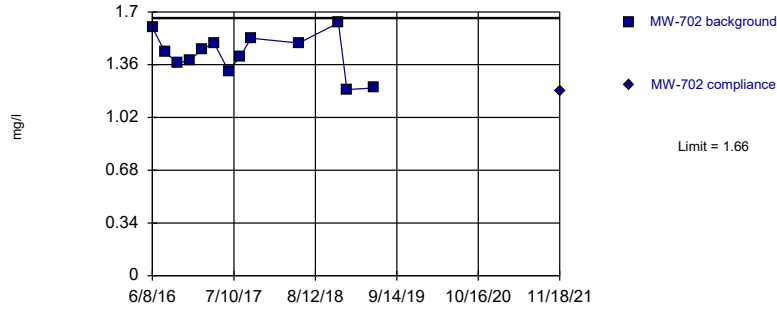
Constituent: FLUORIDE Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	0.493							
6/7/2016							0.717	
6/8/2016			0.545		1.36			
8/9/2016							0.719	
8/10/2016			0.495		1.27			
8/11/2016	0.512							
10/11/2016							0.751	
10/12/2016	0.504							
10/13/2016			0.497		1.28			
12/6/2016							0.816	
12/9/2016	0.425							
12/12/2016			0.401		1.13			
2/7/2017							0.679	
2/8/2017					1.2			
2/9/2017	0.546		0.492					
4/4/2017							0.79	
4/5/2017			0.447		1.28			
4/6/2017	0.527							
6/13/2017							0.692	
6/15/2017	0.452		1.75		1.27			
8/8/2017							0.857	
8/9/2017			0.473		1.2			
8/10/2017	0.582							
10/3/2017							0.798	
10/5/2017	0.379		0.464		1.19			
5/23/2018	0.637		0.595		1.29			
5/24/2018							0.785	
7/11/2018	0.532							
12/3/2018	0.529						0.642	
12/4/2018			0.612		1.32			
5/23/2019	0.454		0.467		1.09		0.603	
11/18/2021		0.514		0.549		1.22		0.589

Within Limit

Prediction Limit Intrawell Parametric

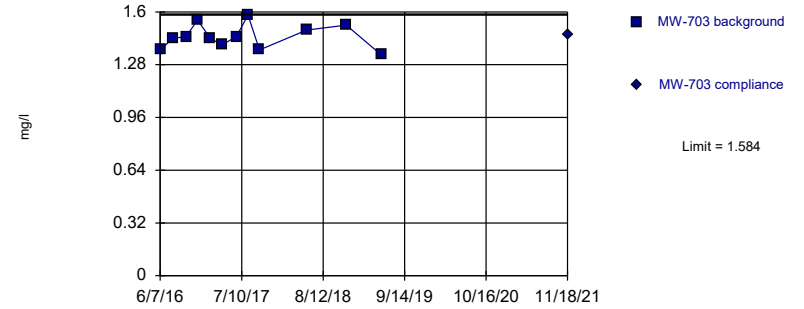


Background Data Summary: Mean=1.428, Std. Dev.=0.1319, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9609, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: FLUORIDE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

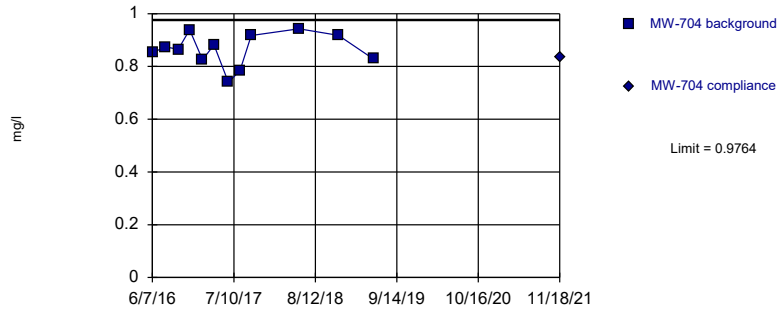


Background Data Summary: Mean=1.45, Std. Dev.=0.07447, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9597, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: FLUORIDE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

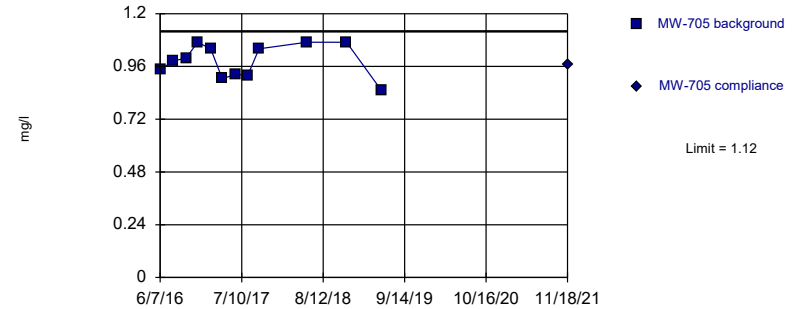


Background Data Summary: Mean=0.8638, Std. Dev.=0.06246, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9508, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: FLUORIDE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=0.9848, Std. Dev.=0.07484, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9122, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: FLUORIDE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

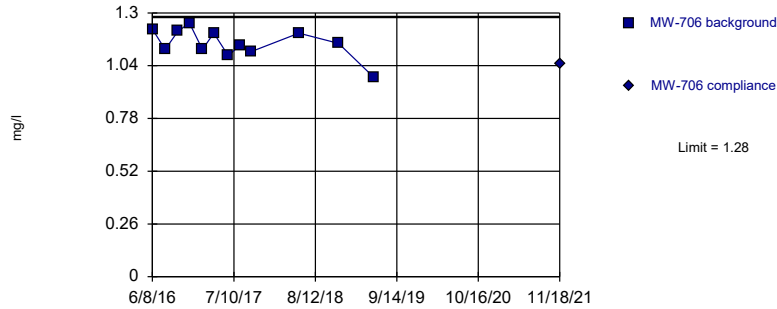
Constituent: FLUORIDE Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			1.37		0.852		0.944	
6/8/2016	1.6							
8/9/2016	1.44		1.44		0.874		0.985	
10/11/2016	1.37		1.45		0.865		0.998	
12/6/2016			1.55		0.939			
12/7/2016							1.07	
12/8/2016	1.39							
2/7/2017			1.44		0.825			
2/8/2017	1.46							
2/9/2017							1.04	
4/4/2017			1.4		0.882			
4/5/2017	1.5							
4/6/2017							0.905	
6/13/2017					0.74		0.924	
6/14/2017			1.45					
6/15/2017	1.32							
8/8/2017					0.783			
8/9/2017	1.41						0.92	
8/10/2017			1.58					
10/3/2017	1.53				0.917		1.04	
10/5/2017			1.37					
5/24/2018	1.5		1.49		0.943		1.07	
12/3/2018	1.63		1.52		0.918			
12/4/2018							1.07	
1/14/2019	1.2							
5/23/2019	1.21		1.34		0.828		0.852	
11/18/2021		1.19		1.46		0.834		0.966

Within Limit

Prediction Limit
Intrawell Parametric

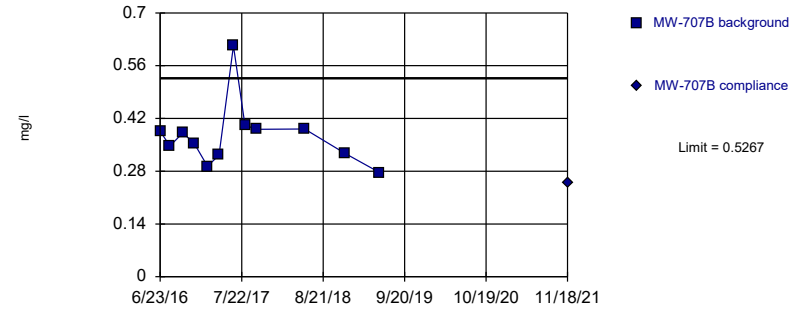


Background Data Summary: Mean=1.15, Std. Dev.=0.0725, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.932, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: FLUORIDE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

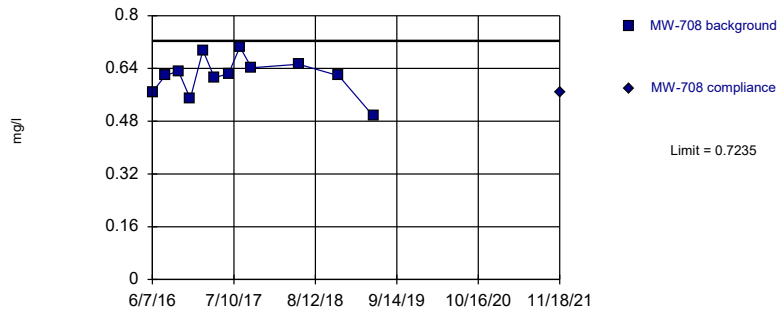


Background Data Summary (based on square root transformation): Mean=0.6082, Std. Dev.=0.06525, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8325, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: FLUORIDE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Prediction Limit

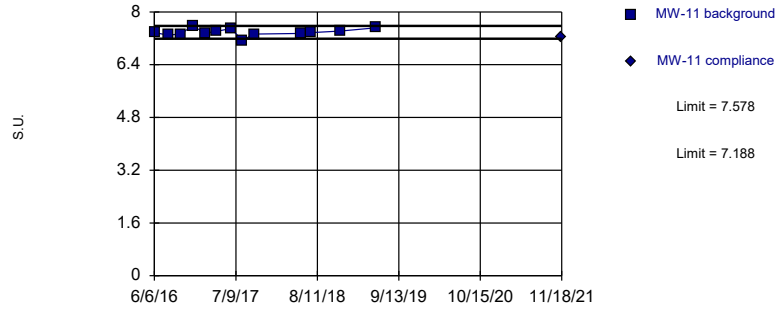
Constituent: FLUORIDE Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					0.569			
6/8/2016	1.22							
6/9/2016							0.404	
6/23/2016			0.386					
8/9/2016	1.12		0.347				0.431	
8/10/2016					0.619			
10/11/2016	1.21		0.382				0.431	
10/12/2016					0.632			
12/6/2016	1.25		0.353				0.459	
12/9/2016					0.548			
2/7/2017	1.12		0.293				0.399	
2/9/2017					0.695			
4/4/2017	1.2		0.323				0.42	
4/6/2017					0.612			
6/13/2017	1.09		0.613				0.384	
6/14/2017					0.624			
8/8/2017			0.402		0.705		0.461	
8/9/2017	1.14							
10/3/2017			0.391				0.403	
10/4/2017	1.11				0.642			
5/23/2018					0.653			
5/24/2018	1.2		0.392				0.463	
12/4/2018	1.15		0.328		0.618		0.39	
5/23/2019	0.985		0.276		0.495		0.365	
11/18/2021		1.05		0.25		0.567		0.404

Within Limits

Prediction Limit Intrawell Parametric

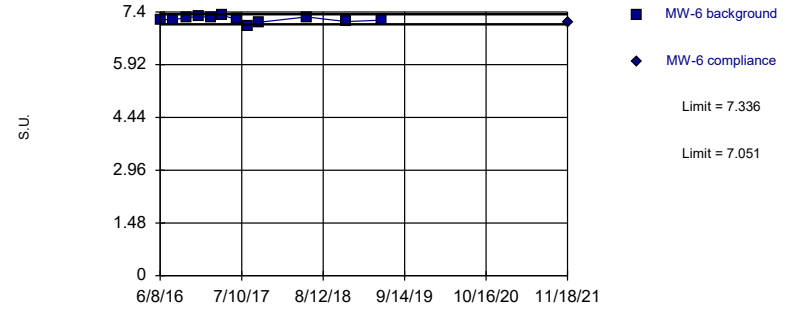


Background Data Summary: Mean=7.383, Std. Dev.=0.1106, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9444, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit Intrawell Parametric

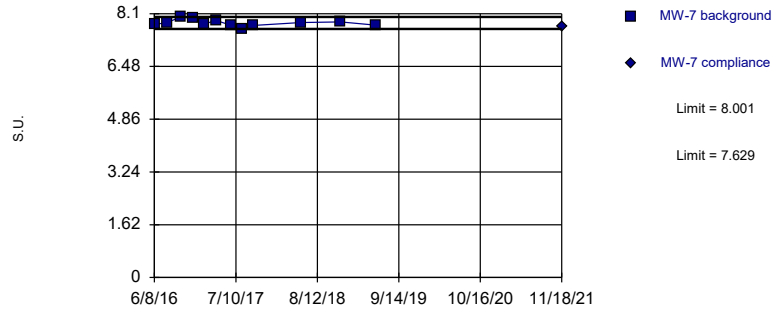


Background Data Summary: Mean=7.193, Std. Dev.=0.07912, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9482, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit Intrawell Parametric

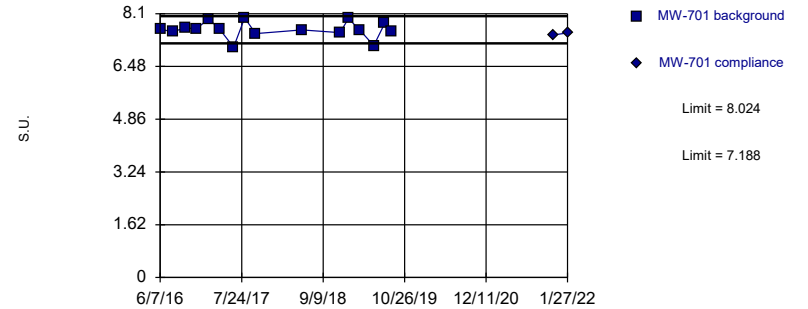


Background Data Summary: Mean=7.815, Std. Dev.=0.1033, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9663, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=7.606, Std. Dev.=0.2528, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8939, critical = 0.844. Kappa = 1.654 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

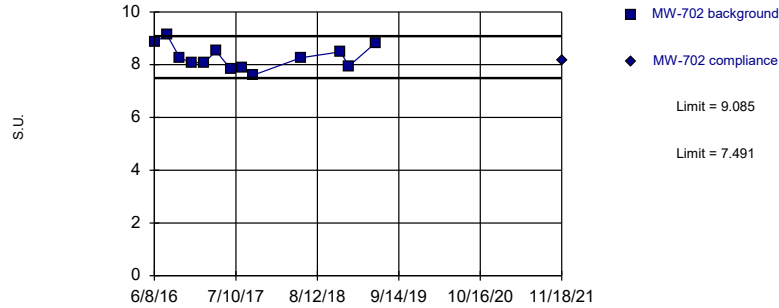
Constituent: pH Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	7.37							
6/7/2016							7.63	
6/8/2016			7.19		7.77			
8/9/2016							7.54	
8/10/2016			7.18		7.83			
8/11/2016	7.3							
10/11/2016							7.67	
10/12/2016	7.33							
10/13/2016			7.24		8			
12/6/2016							7.63	
12/9/2016	7.58							
12/12/2016			7.27		7.96			
2/7/2017							7.94	
2/8/2017					7.79			
2/9/2017	7.36		7.25					
4/4/2017							7.62	
4/5/2017			7.3		7.89			
4/6/2017	7.41							
6/13/2017							7.07	
6/15/2017	7.5		7.2		7.75			
8/8/2017							7.97	
8/9/2017			7.02		7.62			
8/10/2017	7.14							
10/3/2017							7.49	
10/5/2017	7.33		7.11		7.74			
5/23/2018	7.35		7.26		7.83			
5/24/2018							7.6	
7/11/2018	7.37							
12/3/2018	7.42						7.52	
12/4/2018			7.13		7.85			
1/15/2019							7.95	
3/11/2019							7.61	
5/23/2019	7.52		7.17		7.75		7.12	
7/17/2019							7.8	
8/23/2019							7.54	
11/18/2021		7.23		7.1		7.7		7.45
1/27/2022								7.51 Extra Sample

Within Limits

Prediction Limit
Intrawell Parametric

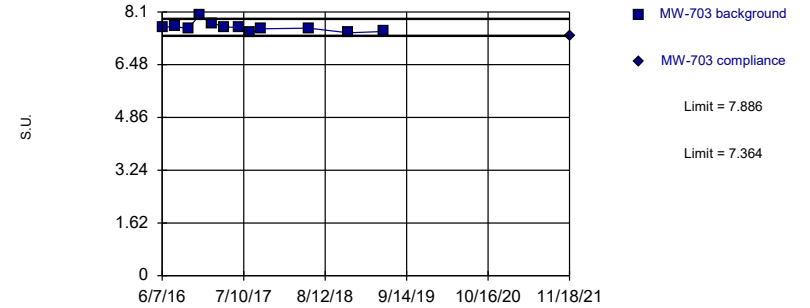


Background Data Summary: Mean=8.288, Std. Dev.=0.4518, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9627, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit
Intrawell Parametric

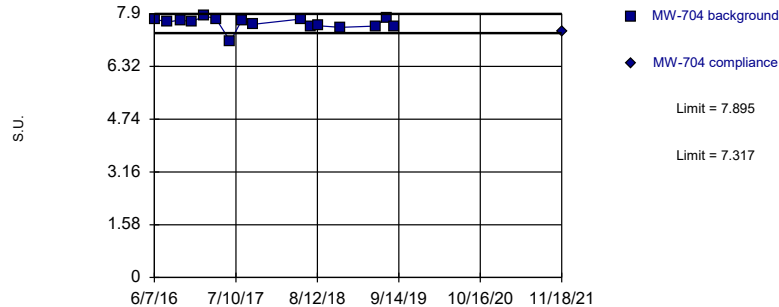


Background Data Summary: Mean=7.625, Std. Dev.=0.1448, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8441, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit
Intrawell Parametric

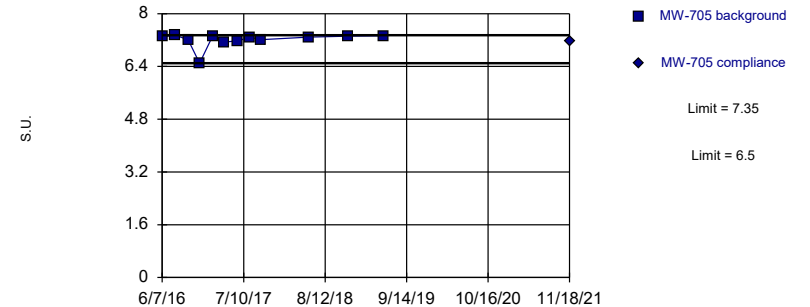


Background Data Summary (based on cube transformation): Mean=441.9, Std. Dev.=30.33, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8534, critical = 0.844. Kappa = 1.654 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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 12 background values. Well-constituent pair annual alpha = 0.008684. Individual comparison alpha = 0.004347 (1 of 3).

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

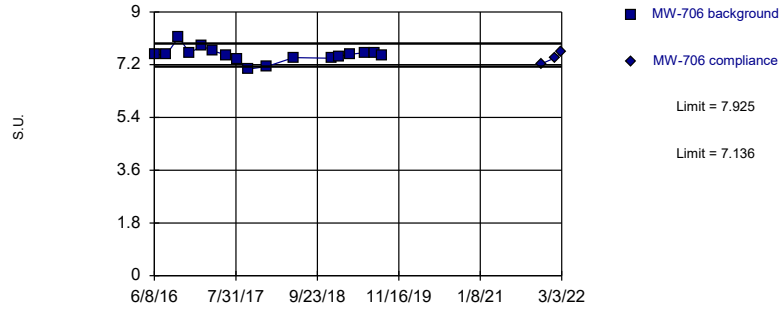
Constituent: pH Analysis Run 3/31/2022 5:15 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			7.63		7.74		7.3	
6/8/2016	8.86							
8/9/2016	9.12		7.65		7.65		7.35	
10/11/2016	8.25		7.59		7.71		7.21	
12/6/2016					7.66			
12/7/2016			8				6.5	
12/8/2016	8.07							
2/7/2017			7.76		7.83			
2/8/2017	8.09							
2/9/2017							7.33	
4/4/2017			7.64		7.75			
4/5/2017	8.52							
4/6/2017							7.14	
6/13/2017					7.07		7.18	
6/14/2017			7.62					
6/15/2017	7.84							
8/8/2017					7.71			
8/9/2017	7.87						7.29	
8/10/2017			7.47					
10/3/2017	7.6				7.58		7.21	
10/5/2017			7.58					
5/24/2018	8.26		7.6		7.74		7.29	
7/11/2018					7.53			
8/16/2018					7.54			
12/3/2018	8.49		7.46		7.49			
12/4/2018							7.32	
1/14/2019	7.95							
5/23/2019	8.82		7.5		7.53		7.33	
7/17/2019					7.78			
8/23/2019					7.5			
11/18/2021		8.15		7.38		7.36		7.16

Within Limits

Prediction Limit Intrawell Parametric

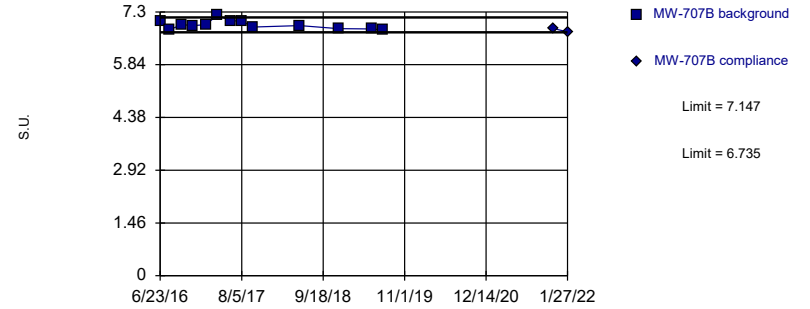


Background Data Summary: Mean=7.531, Std. Dev.=0.2415, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9134, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit Intrawell Parametric

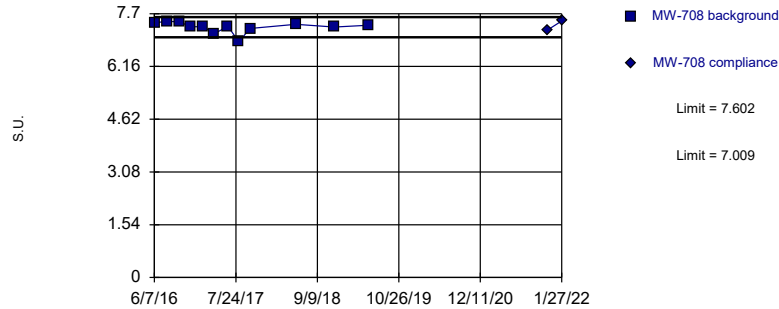


Background Data Summary: Mean=6.941, Std. Dev.=0.1167, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9309, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit Intrawell Parametric

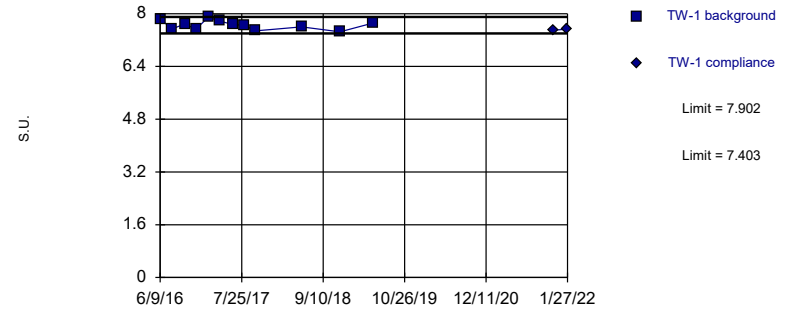


Background Data Summary: Mean=7.306, Std. Dev.=0.1645, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8257, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=7.653, Std. Dev.=0.1387, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9714, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

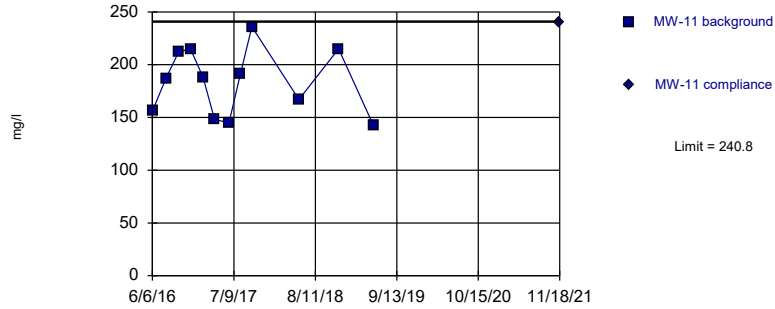
Constituent: pH Analysis Run 3/31/2022 5:16 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					7.43			
6/8/2016	7.54							
6/9/2016							7.83	
6/23/2016			7.03					
8/9/2016	7.55		6.81				7.54	
8/10/2016					7.48			
10/11/2016	8.14		6.95				7.69	
10/12/2016					7.46			
12/6/2016	7.6		6.92				7.53	
12/9/2016					7.32			
2/7/2017	7.84		6.95				7.89	
2/9/2017					7.32			
4/4/2017	7.67		7.2				7.78	
4/6/2017					7.12			
6/13/2017	7.53		7.06				7.67	
6/14/2017					7.33			
8/8/2017			7.04		6.88		7.65	
8/9/2017	7.37							
10/3/2017			6.88				7.48	
10/4/2017	7.05				7.27			
1/9/2018	7.14							
5/23/2018					7.39			
5/24/2018	7.44		6.92				7.6	
12/4/2018	7.42		6.84		7.31		7.45	
1/15/2019	7.49							
3/11/2019	7.55							
5/23/2019	7.61		6.83		7.36		7.72	
7/17/2019	7.58		6.8					
8/23/2019	7.5							
11/18/2021		7.23		6.84		7.23		7.5
1/27/2022		7.43 Extra Sample		6.75 Extra Sample		7.49 Extra Sample		7.53 Extra Sample
3/3/2022		7.64 Extra Sample						

Within Limit

Prediction Limit
Intrawell Parametric

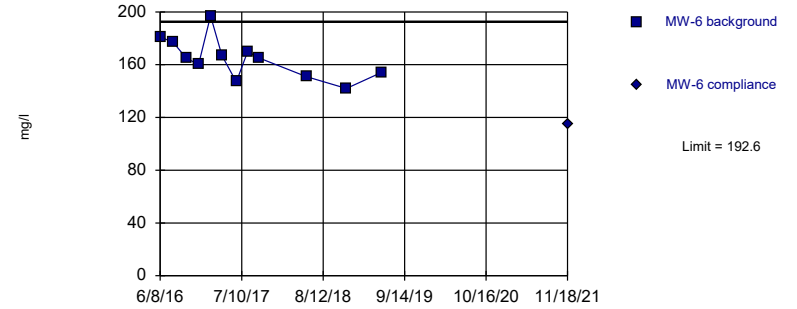


Background Data Summary: Mean=183.5, Std. Dev.=31.82, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9268, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

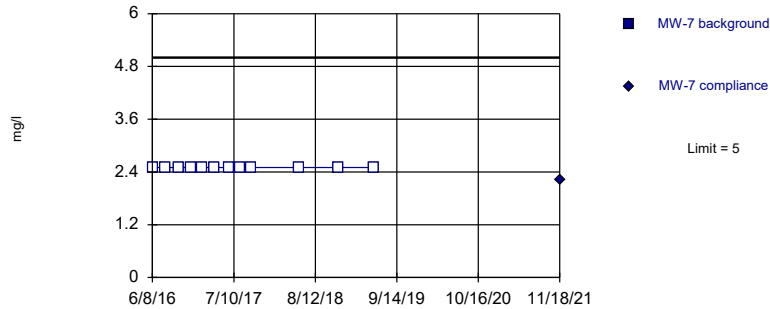


Background Data Summary: Mean=164.7, Std. Dev.=15.51, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9713, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Non-parametric

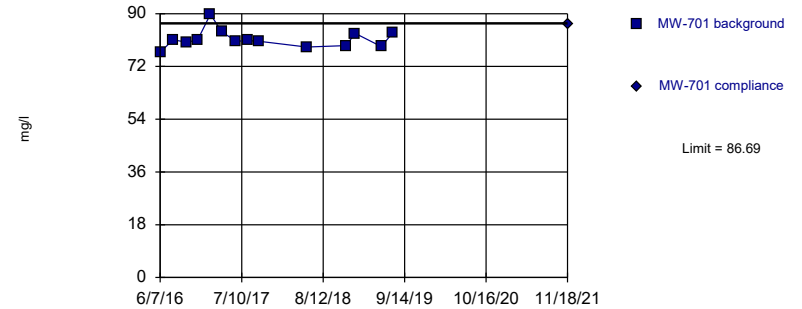


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3).

Constituent: SULFATE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=81.29, Std. Dev.=3.127, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8698, critical = 0.825. Kappa = 1.728 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 3/31/2022 5:11 PM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

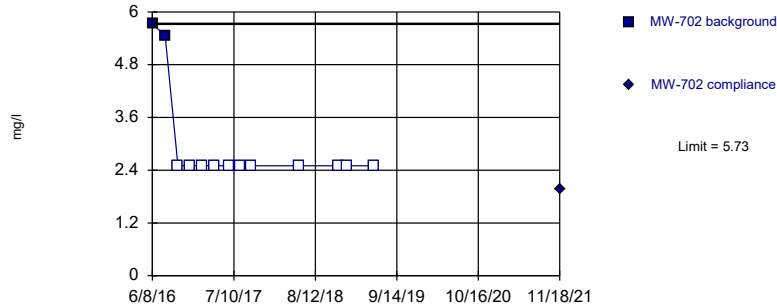
Constituent: SULFATE Analysis Run 3/31/2022 5:16 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	156							
6/7/2016							76.9	
6/8/2016			181		<5			
8/9/2016							81.1	
8/10/2016			177		<5			
8/11/2016	187							
10/11/2016							80.3	
10/12/2016	212							
10/13/2016			165		<5			
12/6/2016							80.9	
12/9/2016	215							
12/12/2016			160		<5			
2/7/2017							89.8	
2/8/2017					<5			
2/9/2017	188		197					
4/4/2017							83.8	
4/5/2017			167		<5			
4/6/2017	148							
6/13/2017							80.6	
6/15/2017	145		147		<5			
8/8/2017							80.8	
8/9/2017			170		<5			
8/10/2017	191							
10/3/2017							80.6	
10/5/2017	236		165		<5			
5/23/2018	167		151		<5			
5/24/2018							78.6	
12/3/2018	215						79.1	
12/4/2018			142		<5			
1/15/2019							83.3	
5/23/2019	142		154		<5		78.8	
7/17/2019							83.4	
11/18/2021		240		115		2.21		86.3

Within Limit

Prediction Limit
Intrawell Non-parametric



Prediction Limit

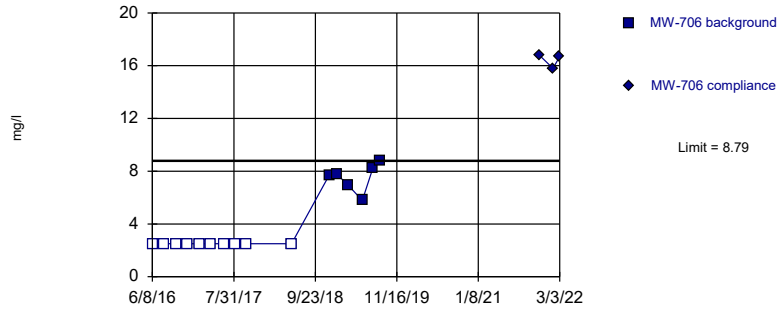
Constituent: SULFATE Analysis Run 3/31/2022 5:16 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			<5		203		39.6	
6/8/2016	5.73							
8/9/2016	5.46		<5		194		40.7	
10/11/2016	<5		<5		180		39.2	
12/6/2016			<5		185			
12/7/2016							41.7	
12/8/2016	<5							
2/7/2017			<5		196			
2/8/2017	<5							
2/9/2017							45.5	
4/4/2017			<5		176			
4/5/2017	<5							
4/6/2017							41.9	
6/13/2017					151		42.2	
6/14/2017			<5					
6/15/2017	<5							
8/8/2017					189			
8/9/2017	<5						43.5	
8/10/2017			<5					
10/3/2017	<5				168		41.3	
10/5/2017			<5					
5/24/2018	<5		<5		166		41	
12/3/2018	<5		<5		168			
12/4/2018							38.9	
1/14/2019	<5							
5/23/2019	<5		<5		153		37	
7/17/2019					156			
11/18/2021		1.97		<5		170		38.6

Exceeds Limit

Prediction Limit
 Intrawell Non-parametric

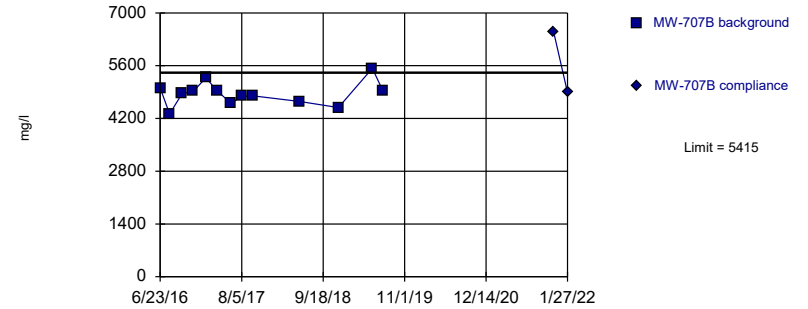


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.002051. Individual comparison alpha = 0.001026 (1 of 3).

Constituent: SULFATE Analysis Run 3/31/2022 5:12 PM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
 Intrawell Parametric

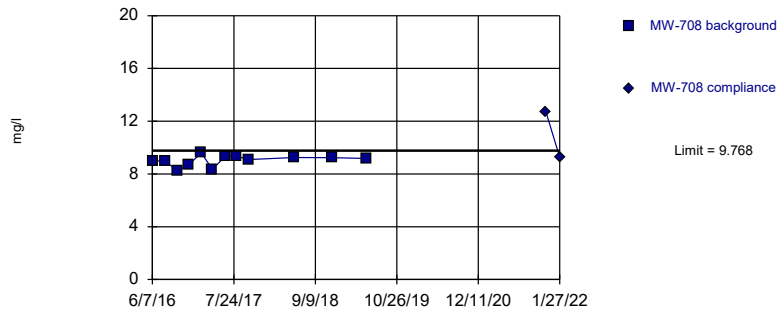


Background Data Summary: Mean=4855, Std. Dev.=317.5, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9647, critical = 0.814. Kappa = 1.765 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 3/31/2022 5:12 PM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
 Intrawell Parametric

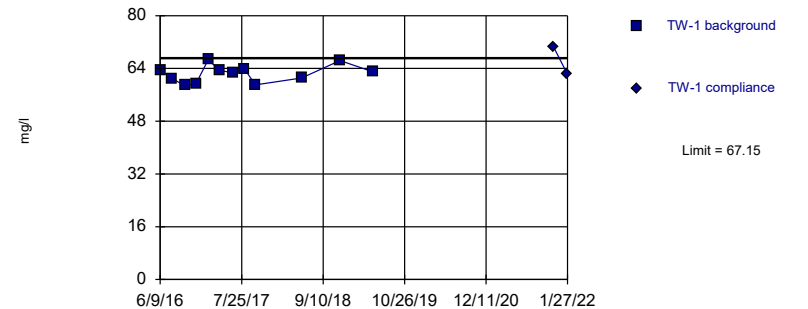


Background Data Summary: Mean=9.032, Std. Dev.=0.4086, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.916, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 3/31/2022 5:12 PM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
 Intrawell Parametric



Background Data Summary: Mean=62.38, Std. Dev.=2.648, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9322, critical = 0.805. Kappa = 1.802 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 3/31/2022 5:12 PM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE Analysis Run 3/31/2022 5:16 PM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1	
6/7/2016					8.99				
6/8/2016	<5								
6/9/2016							63.4		
6/23/2016			5010						
8/9/2016	<5		4320				60.9		
8/10/2016					8.98				
10/11/2016	<5		4860				58.8		
10/12/2016					8.24				
12/6/2016	<5		4920				59.3		
12/9/2016					8.72				
2/7/2017	<5		5280				66.7		
2/9/2017					9.59				
4/4/2017	<5		4940				63.4		
4/6/2017					8.36				
6/13/2017	<5		4600				62.7		
6/14/2017					9.38				
8/8/2017			4790		9.36		63.9		
8/9/2017	<5								
10/3/2017			4800				59		
10/4/2017	<5				9.09				
5/23/2018					9.25				
5/24/2018	<5		4650				61.1		
12/4/2018	7.69		4490		9.24		66.4		
1/15/2019	7.73								
3/11/2019	6.96								
5/23/2019	5.78		5530		9.18		62.9		
7/17/2019	8.27		4920						
8/23/2019	8.79								
11/18/2021		16.8		6500		12.7		70.4	
1/27/2022		15.8	1st Verification	4890	1st Verification	9.26	1st Verification	62.2	1st Verification
3/3/2022		16.7	2nd Verification						

Prediction Limit

LaCygne Client: SCS Engineers Data: LaC GW Data Printed 3/31/2022, 5:16 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
BORON (mg/l)	MW-11	1.263	n/a	11/18/2021	1.05	No	13	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-6	1.249	n/a	11/18/2021	1.14	No	12	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-7	1.691	n/a	11/18/2021	1.56	No	12	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-701	1.108	n/a	11/18/2021	0.907	No	12	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-702	2.024	n/a	11/18/2021	1.53	No	12	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-703	1.944	n/a	11/18/2021	1.79	No	12	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-704	2.153	n/a	11/18/2021	2	No	12	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-705	2.318	n/a	11/18/2021	2.12	No	12	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-706	2.263	n/a	11/18/2021	2.05	No	12	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-707B	2.04	n/a	11/18/2021	1.94	No	12	0	n/a	0.002173	NP Intra (normality) ...
BORON (mg/l)	MW-708	1.537	n/a	11/18/2021	1.37	No	12	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	TW-1	1.731	n/a	11/18/2021	1.45	No	12	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-11	72.5	n/a	11/18/2021	60.3	No	12	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-6	116.3	n/a	11/18/2021	77.8	No	12	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-7	27.59	n/a	11/18/2021	20.3	No	12	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-701	44.57	n/a	1/27/2022	42.9	No	16	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-702	24.13	n/a	11/18/2021	4.61	No	13	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-703	23.18	n/a	11/18/2021	17.8	No	12	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-704	35.87	n/a	11/18/2021	21.9	No	13	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-705	43.56	n/a	11/18/2021	28.7	No	12	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-706	35.66	n/a	3/3/2022	22.7	No	14	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-707B	422.2	n/a	1/27/2022	408	No	13	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-708	34.37	n/a	11/18/2021	30.9	No	12	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	TW-1	37.96	n/a	11/18/2021	25.5	No	12	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-11	135.8	n/a	11/18/2021	80.9	No	12	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-6	227.2	n/a	11/18/2021	201	No	12	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-7	112.8	n/a	11/18/2021	95.9	No	12	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-701	56.12	n/a	11/18/2021	47.4	No	14	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-702	50.24	n/a	11/18/2021	42.2	No	13	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-703	117	n/a	11/18/2021	114	No	12	0	x^5	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-704	88.89	n/a	11/18/2021	88.1	No	16	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-705	141.4	n/a	11/18/2021	141	No	12	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-706	302.2	n/a	3/3/2022	241	No	13	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-707B	237.8	n/a	11/18/2021	199	No	13	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-708	48.87	n/a	11/18/2021	46.2	No	12	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	TW-1	46.26	n/a	11/18/2021	40.2	No	12	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-11	1144	n/a	11/18/2021	946	No	12	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-6	1287	n/a	11/18/2021	1090	No	12	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-7	970.4	n/a	11/18/2021	864	No	12	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-701	648.3	n/a	11/18/2021	534	No	12	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-702	811.9	n/a	11/18/2021	541	No	12	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-703	982	n/a	11/18/2021	840	No	12	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-704	1303	n/a	11/18/2021	1230	No	12	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-705	1095	n/a	11/18/2021	1000	No	12	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-706	1560	n/a	11/18/2021	1170	No	12	0	n/a	0.002173	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-707B	9261	n/a	11/18/2021	6140	No	12	0	x^2	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-708	881	n/a	11/18/2021	641	No	12	0	n/a	0.002173	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	TW-1	1109	n/a	11/18/2021	994	No	12	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-11	0.6247	n/a	11/18/2021	0.514	No	13	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-6	1.75	n/a	11/18/2021	0.549	No	12	0	n/a	0.002173	NP Intra (normality) ...

Prediction Limit

LaCygne Client: SCS Engineers Data: LaC GW Data Printed 3/31/2022, 5:16 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
FLUORIDE (mg/l)	MW-7	1.382	n/a	11/18/2021	1.22	No	12	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-701	0.8735	n/a	11/18/2021	0.589	No	12	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-702	1.66	n/a	11/18/2021	1.19	No	13	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-703	1.584	n/a	11/18/2021	1.46	No	12	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-704	0.9764	n/a	11/18/2021	0.834	No	12	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-705	1.12	n/a	11/18/2021	0.966	No	12	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-706	1.28	n/a	11/18/2021	1.05	No	12	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-707B	0.5267	n/a	11/18/2021	0.25	No	12	0	sqrt(x)	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-708	0.7235	n/a	11/18/2021	0.567	No	12	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	TW-1	0.4756	n/a	11/18/2021	0.404	No	12	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-11	7.578	7.188	11/18/2021	7.23	No	13	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-6	7.336	7.051	11/18/2021	7.1	No	12	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-7	8.001	7.629	11/18/2021	7.7	No	12	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-701	8.024	7.188	1/27/2022	7.51	No	16	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-702	9.085	7.491	11/18/2021	8.15	No	13	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-703	7.886	7.364	11/18/2021	7.38	No	12	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-704	7.895	7.317	11/18/2021	7.36	No	16	0	x^3	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-705	7.35	6.5	11/18/2021	7.16	No	12	0	n/a	0.004347	NP Intra (normality) ...
pH (S.U.)	MW-706	7.925	7.136	3/3/2022	7.64	No	17	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-707B	7.147	6.735	1/27/2022	6.75	No	13	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-708	7.602	7.009	1/27/2022	7.49	No	12	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	TW-1	7.902	7.403	1/27/2022	7.53	No	12	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-11	240.8	n/a	11/18/2021	240	No	12	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-6	192.6	n/a	11/18/2021	115	No	12	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-7	5	n/a	11/18/2021	2.21	No	12	100	n/a	0.002173	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-701	86.69	n/a	11/18/2021	86.3	No	14	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-702	5.73	n/a	11/18/2021	1.97	No	13	84.62	n/a	0.001886	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-703	5	n/a	11/18/2021	2.5ND	No	12	100	n/a	0.002173	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-704	205.9	n/a	11/18/2021	170	No	13	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-705	45.07	n/a	11/18/2021	38.6	No	12	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-706	8.79	n/a	3/3/2022	16.7	Yes	16	62.5	n/a	0.001026	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-707B	5415	n/a	1/27/2022	4890	No	13	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-708	9.768	n/a	1/27/2022	9.26	No	12	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	TW-1	67.15	n/a	1/27/2022	62.2	No	12	0	No	0.000...	Param Intra 1 of 3

La Cygne Generating Station
Determination of Statistically Significant Increases
Upper AQC Impoundment
April 1, 2022

ATTACHMENT 2

Sanitas™ Configuration Settings

Exclude data flags:

Observations with flags containing the following characters will be deselected: 'i', 'I'.

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...

Test Residuals For Normality (Parametric test only) 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 >

Include % 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 when NDs % > 50

Use Poisson Prediction Limit when Non-Detects Percent > 0

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

Spring 2022 Semiannual Detection Monitoring Statistical Analyses

MEMORANDUM

September 28, 2022

**To: La Cygne Generating Station
25166 East 2200 Road
La Cygne, Kansas 66040
Eversource Energy, Inc.**



From: SCS Engineers

**RE: Determination of Statistically Significant Increases –
Upper AQC Impoundment
Spring 2022 Semiannual Detection Monitoring 40 CFR 257.94**

Statistical analysis of monitoring data from the groundwater monitoring system for the Upper AQC Impoundment at the La Cygne 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 May 9, 2022. Review and validation of the results from the May 2022 Detection Monitoring Event was completed on July 1, 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. Two rounds of verification sampling were conducted for certain constituents on July 15, 2022 and August 17, 2022.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-704.

Constituent/Monitoring Well	*UPL	Observation May 9, 2022	1st Verification July 15, 2022	2nd Verification August 17, 2022
MW-704				
Chloride	92.57	94.5	95.2	93.9

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified an SSI above the background prediction limit for chloride at monitoring well MW-704.

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 sample results,

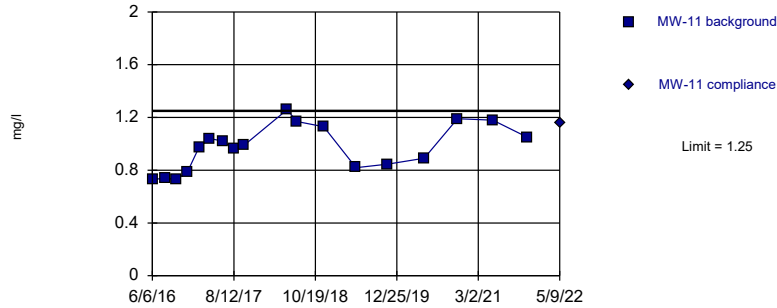
La Cygne Generating Station
Determination of Statistically Significant Increases
Upper AQC Impoundment
September 28, 2022

ATTACHMENT 1

Sanitas™ Output

Within Limit

Prediction Limit
Intrawell Parametric



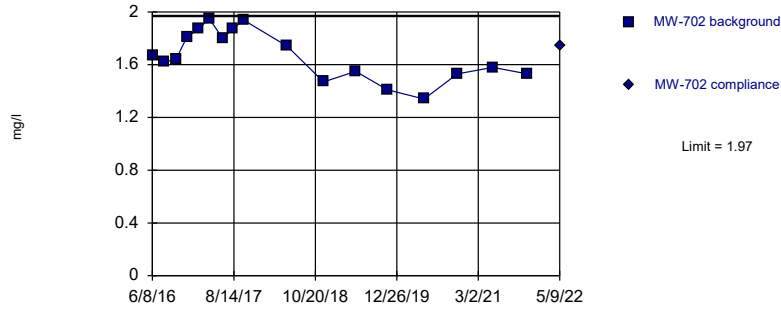
Prediction Limit

Constituent: BORON Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	0.729							
6/7/2016							1.07	
6/8/2016			1.18		1.61			
8/9/2016							1.06	
8/10/2016			1.23		1.71			
8/11/2016	0.739							
10/11/2016							1.04	
10/12/2016	0.73							
10/13/2016			1.18		1.64			
12/6/2016							1.07	
12/9/2016	0.786							
12/12/2016			1.18		1.6			
2/7/2017							1.05	
2/8/2017					1.65			
2/9/2017	0.974		1.22					
4/4/2017							1.06	
4/5/2017			1.19		1.61			
4/6/2017	1.04							
6/13/2017							1.01	
6/15/2017	1.02		1.19		1.64			
8/8/2017							1.07	
8/9/2017			1.21		1.65			
8/10/2017	0.965							
10/3/2017							1.09	
10/5/2017	0.988		1.11		1.59			
5/23/2018	1.26		1.23		1.65			
5/24/2018							1.06	
7/11/2018	1.17							
12/3/2018	1.13						0.979	
12/4/2018			1.18		1.62			
5/23/2019	0.819		1.19		1.6		0.992	
11/7/2019	0.846		1.15		1.59		0.952	
5/19/2020	0.891		1.11		1.53		0.913	
11/12/2020	1.19		1.14		1.56		0.92	
5/19/2021	1.18		1.14		1.54		0.931	
11/18/2021	1.05		1.14		1.56		0.907	
5/9/2022		1.16		1.09		1.49		0.883

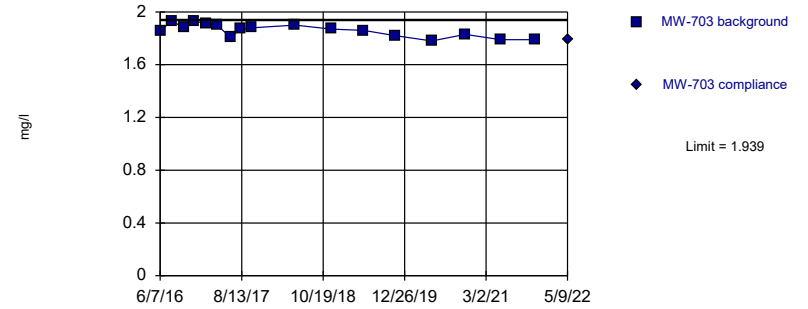
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=1.666, Std. Dev.=0.1861, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9606, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: BORON Analysis Run 9/9/2022 9:04 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

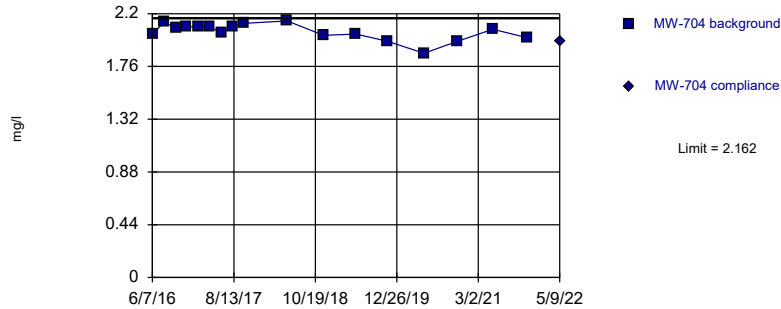
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=1.859, Std. Dev.=0.04854, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9402, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: BORON Analysis Run 9/9/2022 9:04 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

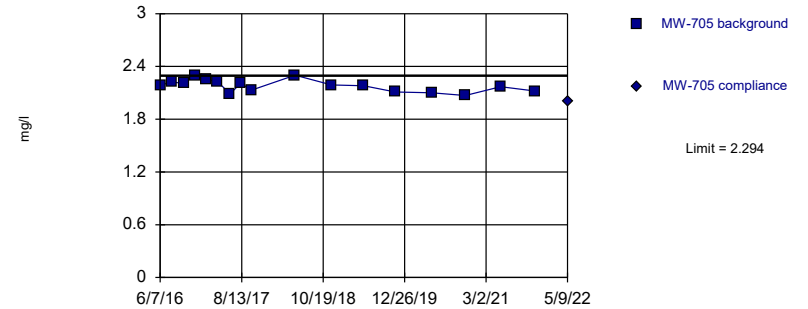
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=2.049, Std. Dev.=0.06918, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9212, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: BORON Analysis Run 9/9/2022 9:04 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=2.181, Std. Dev.=0.06959, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.957, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: BORON Analysis Run 9/9/2022 9:04 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

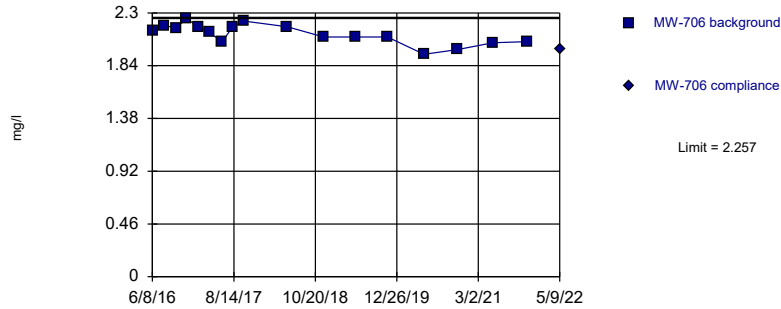
Prediction Limit

Constituent: BORON Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			1.86		2.03		2.19	
6/8/2016	1.67							
8/9/2016	1.62		1.93		2.13		2.22	
10/11/2016	1.64		1.88		2.08		2.21	
12/6/2016			1.93		2.09			
12/7/2016							2.3	
12/8/2016	1.81							
2/7/2017			1.91		2.09			
2/8/2017	1.87							
2/9/2017							2.25	
4/4/2017			1.9		2.09			
4/5/2017	1.95							
4/6/2017							2.23	
6/13/2017					2.04		2.09	
6/14/2017			1.81					
6/15/2017	1.8							
8/8/2017					2.09			
8/9/2017	1.87						2.21	
8/10/2017			1.87					
10/3/2017	1.94				2.12		2.13	
10/5/2017			1.88					
5/24/2018	1.74		1.9		2.14		2.3	
12/3/2018	1.47		1.87		2.02			
12/4/2018							2.19	
5/23/2019	1.55		1.86		2.03		2.18	
11/7/2019	1.41		1.82		1.97		2.11	
5/19/2020	1.34		1.78		1.87		2.1	
11/12/2020	1.53		1.83		1.97		2.07	
5/19/2021	1.58		1.79		2.07		2.17	
11/18/2021	1.53		1.79		2		2.12	
5/9/2022		1.74		1.79		1.97		2

Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=2.116, Std. Dev.=0.08602, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9602,

Prediction Limit

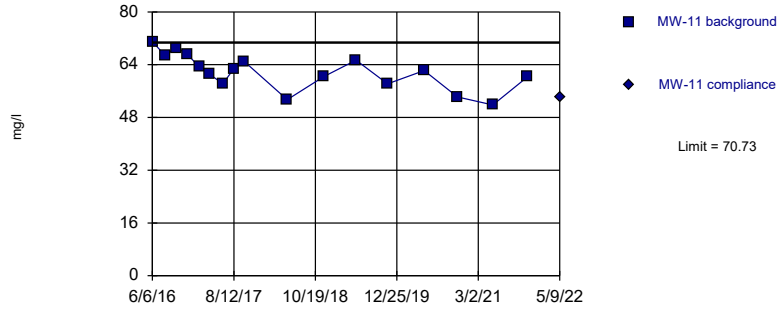
Constituent: BORON Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					1.37			
6/8/2016	2.14							
6/9/2016							1.47	
6/23/2016			1.38					
8/9/2016	2.19		1.94				1.54	
8/10/2016					1.44			
10/11/2016	2.17		1.88				1.6	
10/12/2016					1.47			
12/6/2016	2.25		1.98				1.67	
12/9/2016					1.44			
2/7/2017	2.18		1.97				1.64	
2/9/2017					1.51			
4/4/2017	2.13		1.93				1.68	
4/6/2017					1.48			
6/13/2017	2.05		1.95				1.53	
6/14/2017					1.36			
8/8/2017			2.02		1.44		1.6	
8/9/2017	2.18							
10/3/2017			2.02				1.65	
10/4/2017	2.23				1.49			
5/23/2018					1.45			
5/24/2018	2.18		2.04				1.67	
12/4/2018	2.09		1.95		1.41		1.48	
5/23/2019	2.09		1.96		1.31		1.47	
11/7/2019	2.09		1.86		1.34		1.42	
5/19/2020	1.94		1.81		1.26		1.37	
11/12/2020	1.98		1.83		1.32		1.38	
5/19/2021	2.04		1.88		1.36		1.42	
11/18/2021	2.05		1.94		1.37		1.45	
5/9/2022		1.98		1.86		1.27		1.37

Within Limit

Prediction Limit Intrawell Parametric

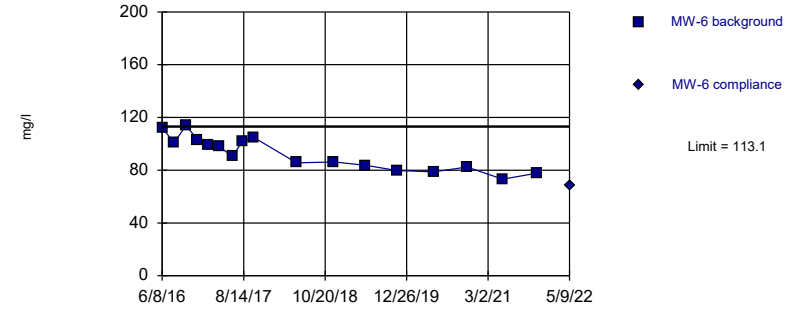


Background Data Summary: Mean=61.79, Std. Dev.=5.475, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9742, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 9/9/2022 9:04 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

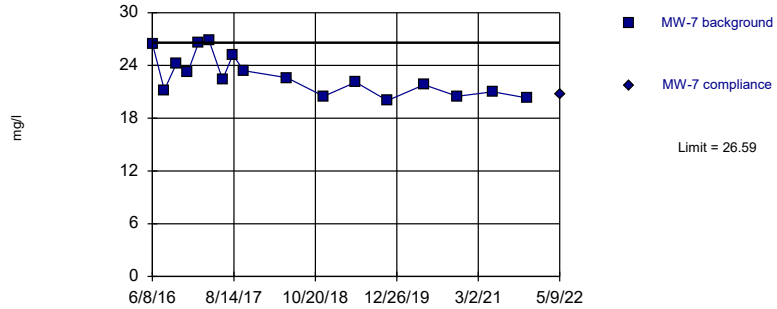


Background Data Summary: Mean=92.45, Std. Dev.=12.62, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9427, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 9/9/2022 9:04 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

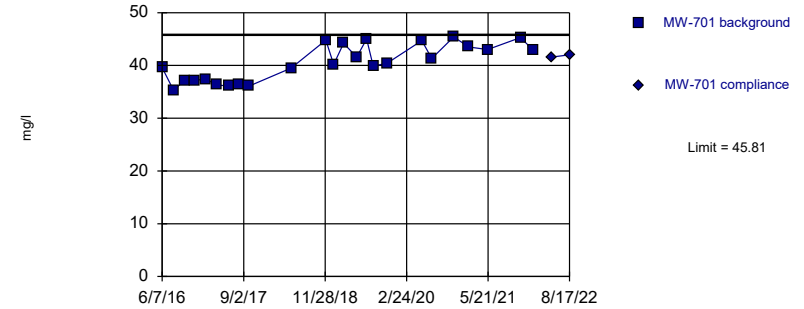


Background Data Summary: Mean=22.84, Std. Dev.=2.298, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.906, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 9/9/2022 9:04 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=40.55, Std. Dev.=3.455, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9111, critical = 0.884. Kappa = 1.524 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 9/9/2022 9:04 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

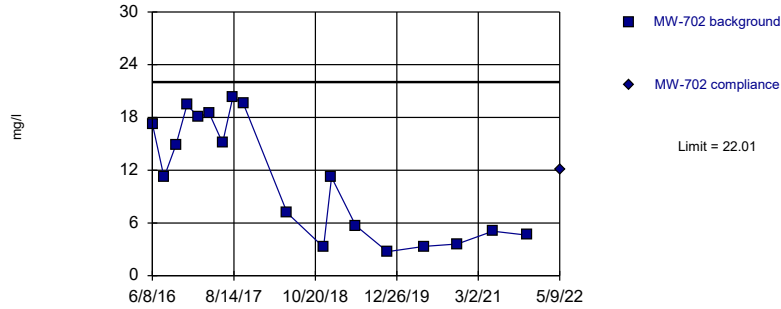
Prediction Limit

Constituent: CALCIUM Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	71							
6/7/2016							39.6	
6/8/2016			112		26.5			
8/9/2016							35.3	
8/10/2016			101		21.2			
8/11/2016	66.9							
10/11/2016							37.2	
10/12/2016	69.2							
10/13/2016			114		24.2			
12/6/2016							37.2	
12/9/2016	67.1							
12/12/2016			103		23.2			
2/7/2017							37.4	
2/8/2017					26.6			
2/9/2017	63.4		98.8					
4/4/2017							36.3	
4/5/2017			97.9		26.8			
4/6/2017	61.1							
6/13/2017							36.1	
6/15/2017	58.2		90.5		22.4			
8/8/2017							36.3	
8/9/2017			102		25.2			
8/10/2017	62.6							
10/3/2017							36.1	
10/5/2017	65.1		105		23.4			
5/23/2018	53.4		85.6		22.6			
5/24/2018							39.5	
12/3/2018	60.4						44.8	
12/4/2018			86.3		20.5			
1/15/2019							40.2	
3/11/2019							44.2	
5/23/2019	65.4		83.7		22.1		41.6	
7/17/2019							45	
8/23/2019							39.9	
11/7/2019	58.2		79.7		20		40.4	
5/19/2020	62.2		78.8		21.8		44.7	
7/13/2020							41.3	
11/12/2020	54.2		82.4		20.5		45.4	
2/4/2021							43.5	
5/19/2021	51.8		73.2		21		43	
11/18/2021	60.3		77.8		20.3		45.3	
1/27/2022							42.9	
5/9/2022		54.3		68.2		20.7		41.6
8/17/2022								42 Extra Sample

Within Limit Prediction Limit
Intrawell Parametric



Prediction Limit

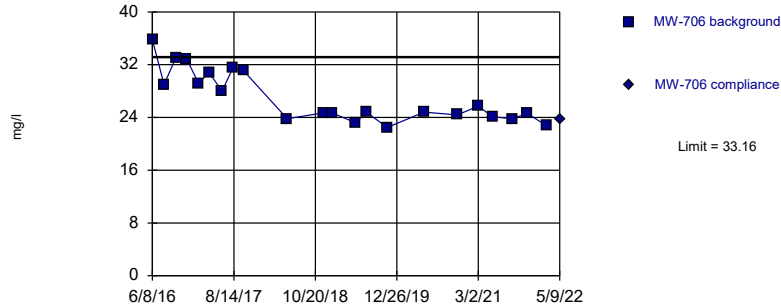
Constituent: CALCIUM Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			22		35.1		41	
6/8/2016	17.3							
8/9/2016	11.2		17.9		28.9		33.5	
10/11/2016	14.9		20.5		32.9		39.6	
12/6/2016			19.8		32			
12/7/2016							39.5	
12/8/2016	19.4							
2/7/2017			17.7		29			
2/8/2017	18.1							
2/9/2017							38.8	
4/4/2017			22.4		29.8			
4/5/2017	18.5							
4/6/2017							37.5	
6/13/2017					26.6		35.4	
6/14/2017			17.4					
6/15/2017	15.1							
8/8/2017					30.6			
8/9/2017	20.3						38.7	
8/10/2017			17.5					
10/3/2017	19.6				30.3		36.1	
10/5/2017			21.6					
5/24/2018	7.13		21.8		22.7		28.9	
12/3/2018	3.24		17.7		24			
12/4/2018							30.3	
1/14/2019	11.2							
5/23/2019	5.7		19.3		21.9		28.5	
7/17/2019					21.5			
11/7/2019	2.73		17.6		21		26.7	
5/19/2020	3.33		18.5		20.9		29.4	
11/12/2020	3.6		18.4		21.5		28.8	
3/3/2021					20.7			
5/19/2021	5.07		19		21.1		28.6	
8/30/2021					20.8			
11/18/2021	4.61		17.8		21.9		28.7	
5/9/2022		12.1		19.8		20.6		27.6
8/17/2022					19.8	Extra Sample		

Within Limit

Prediction Limit
Intrawell Parametric

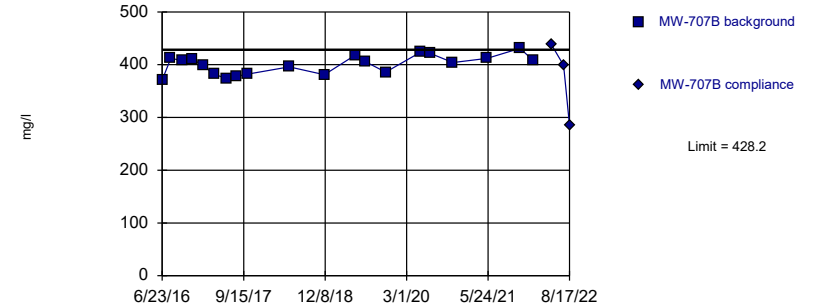


Background Data Summary: Mean=27.05, Std. Dev.=3.948, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8784, critical = 0.878. Kappa = 1.547 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

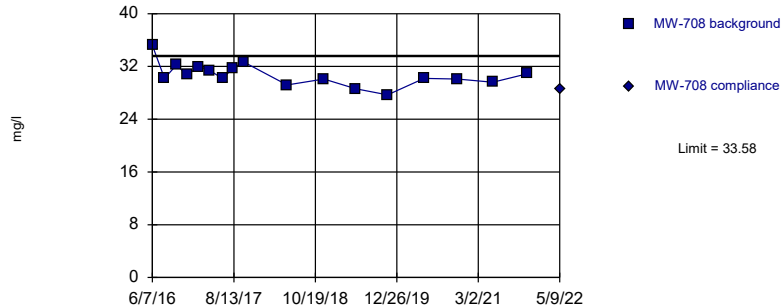


Background Data Summary: Mean=400.1, Std. Dev.=17.91, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9475, critical = 0.868. Kappa = 1.57 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

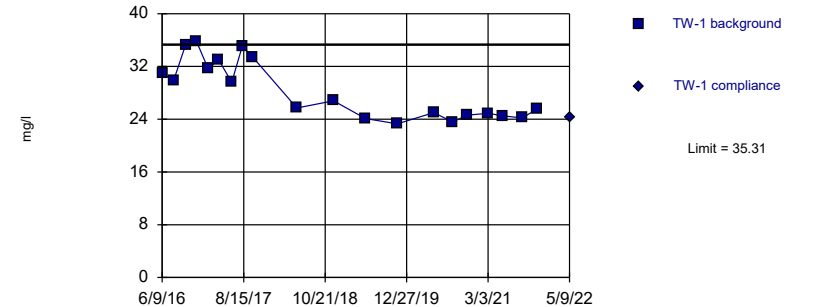


Background Data Summary: Mean=30.75, Std. Dev.=1.732, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9526, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=28.36, Std. Dev.=4.431, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.868, critical = 0.868. Kappa = 1.57 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CALCIUM Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

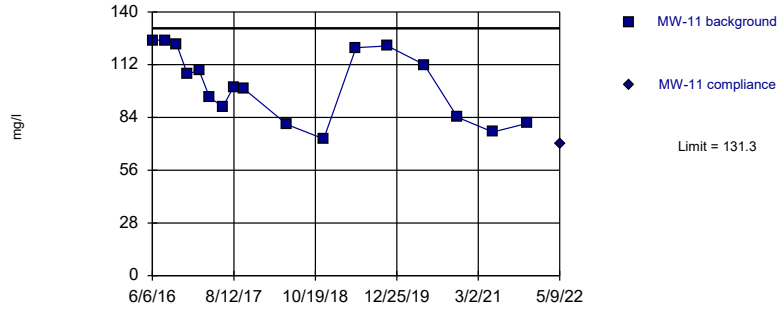
Constituent: CALCIUM Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					35.2			
6/8/2016	35.8							
6/9/2016							31	
6/23/2016			371					
8/9/2016	29		412				29.9	
8/10/2016					30.2			
10/11/2016	33.1		408				35.3	
10/12/2016					32.2			
12/6/2016	32.9		410				35.9	
12/9/2016					30.7			
2/7/2017	29.2		398				31.7	
2/9/2017					32			
4/4/2017	30.8		382				33	
4/6/2017					31.4			
6/13/2017	28		374				29.6	
6/14/2017					30.2			
8/8/2017			378		31.7		35.1	
8/9/2017	31.5							
10/3/2017			382				33.4	
10/4/2017	31.1				32.7			
5/23/2018					29.2			
5/24/2018	23.8		396				25.7	
12/4/2018	24.7		381		30.1		26.8	
1/15/2019	24.7							
5/23/2019	23.2		418		28.6		24.1	
7/17/2019	24.8		406					
11/7/2019	22.5		386		27.7		23.3	
5/19/2020	24.8		424		30.2		25	
7/13/2020			421					
8/27/2020							23.6	
11/12/2020	24.4		404		30.1		24.6	
3/3/2021	25.7						24.9	
5/19/2021	24.1		412		29.6		24.5	
8/30/2021	23.8						24.2	
11/18/2021	24.6		431		30.9		25.5	
1/27/2022			408					
3/3/2022	22.7							
5/9/2022		23.7		438		28.6		24.3
7/15/2022				399 1st Verification				
8/17/2022				285 Extra Sample				

Within Limit

Prediction Limit Intrawell Parametric



Prediction Limit

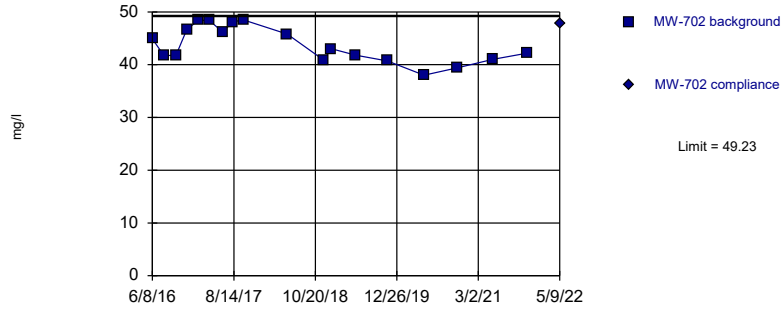
Constituent: CHLORIDE Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	125							
6/7/2016							56.5	
6/8/2016			216		106			
8/9/2016							50.6	
8/10/2016			214		103			
8/11/2016	125							
10/11/2016							49.1	
10/12/2016	123							
10/13/2016			206		99.9			
12/6/2016							52.2	
12/9/2016	107							
12/12/2016			189		98			
2/7/2017							49.2	
2/8/2017					100			
2/9/2017	109		208					
4/4/2017							55.3	
4/5/2017			227		102			
4/6/2017	94.5							
6/13/2017							54.1	
6/15/2017	89.7		181		81.2			
8/8/2017							53.5	
8/9/2017			210		111			
8/10/2017	100							
10/3/2017							51.5	
10/5/2017	99.2		208		105			
5/23/2018	80.2		197		96.9			
5/24/2018							53	
12/3/2018	72.6						49.4	
12/4/2018			193		94.6			
1/15/2019							47.9	
5/23/2019	121		204		96.5		48.6	
7/17/2019							50.7	
11/7/2019	122		197		96.2		46.2	
5/19/2020	112		191		95.9		48.3	
11/12/2020	84.1		205		94.2		49.1	
5/19/2021	76.3		193		95.4		48.2	
11/18/2021	80.9		201		95.9		47.4	
5/9/2022		70		189		97.3		48.5
8/17/2022								48.6 Extra Sample

Within Limit

Prediction Limit Intrawell Parametric

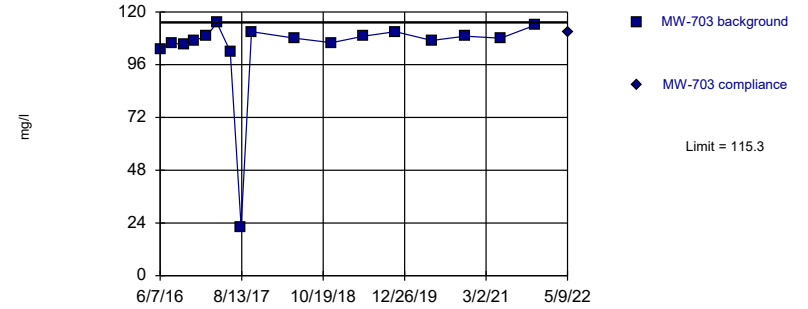


Background Data Summary: Mean=43.75, Std. Dev.=3.402, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9167, critical = 0.858. Kappa = 1.612 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

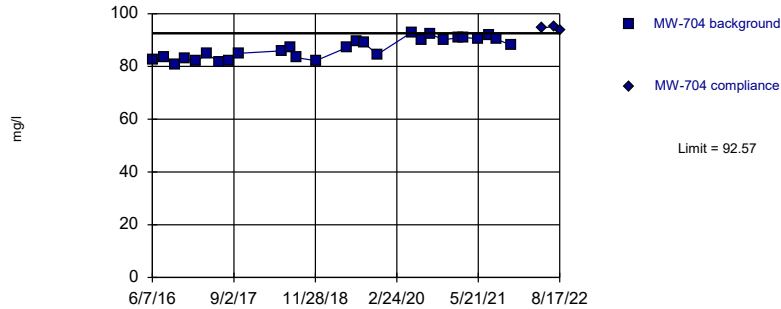


Background Data Summary (based on x^6 transformation): Mean=1.5e12, Std. Dev.=5.0e11, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.857, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Exceeds Limit

Prediction Limit Intrawell Parametric

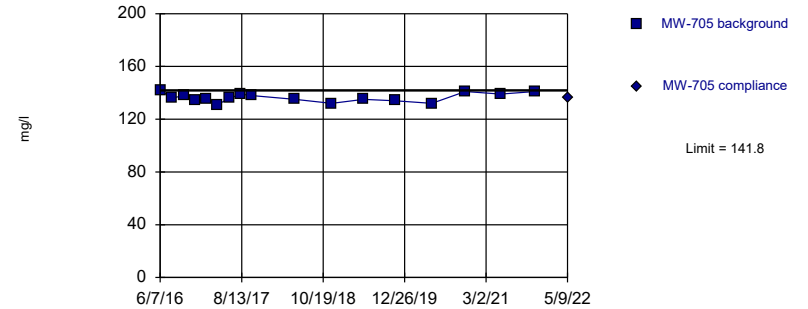


Background Data Summary: Mean=86.76, Std. Dev.=3.878, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9132, critical = 0.894. Kappa = 1.498 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=136.4, Std. Dev.=3.334, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9557, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

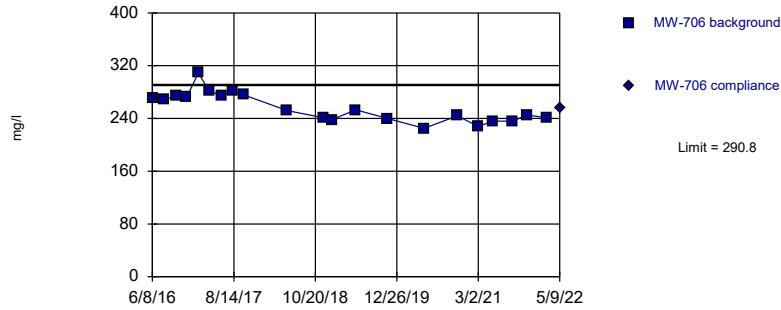
Constituent: CHLORIDE Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			103		82.5		142	
6/8/2016	44.9							
8/9/2016	41.7		106		83.4		136	
10/11/2016	41.8		105		80.8		138	
12/6/2016			107		82.9			
12/7/2016							134	
12/8/2016	46.7							
2/7/2017			109		82			
2/8/2017	48.4							
2/9/2017							135	
4/4/2017			115		84.7			
4/5/2017	48.4							
4/6/2017							131	
6/13/2017					81.8		136	
6/14/2017			102					
6/15/2017	46.2							
8/8/2017					82.1			
8/9/2017	48.1						139	
8/10/2017			22.3					
10/3/2017	48.5				85		138	
10/5/2017			111					
5/24/2018	45.8		108		85.9		135	
7/11/2018					87.1			
8/16/2018					83.3			
12/3/2018	40.9		106		82.2			
12/4/2018							132	
1/14/2019	43							
5/23/2019	41.8		109		87.2		135	
7/17/2019					89.7			
8/23/2019					89.2			
11/7/2019	40.7		111		84.5		134	
5/19/2020	38		107		93		132	
7/13/2020					90.1			
8/27/2020					92.2			
11/12/2020	39.4		109		90.2		141	
2/4/2021					90.8			
3/3/2021					91			
5/19/2021	41		108		90.5		139	
7/21/2021					91.9			
8/30/2021					90.4			
11/18/2021	42.2		114		88.1		141	
5/9/2022		47.8		111		94.5		136
7/15/2022						95.2	1st Verification	
8/17/2022						93.9	2nd Verification	

Within Limit

Prediction Limit
Intrawell Parametric

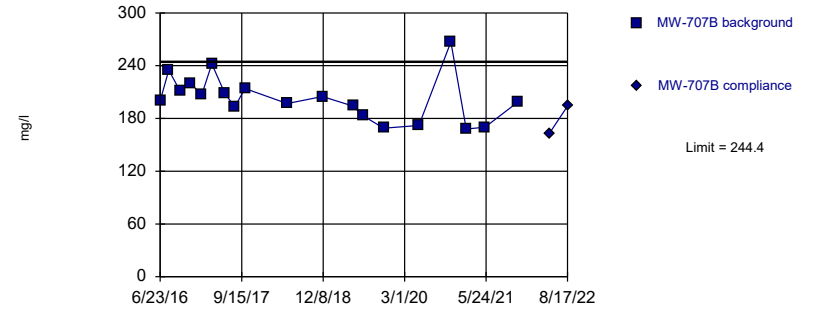


Background Data Summary: Mean=256.5, Std. Dev.=22.01, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9274, critical = 0.873. Kappa = 1.558 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

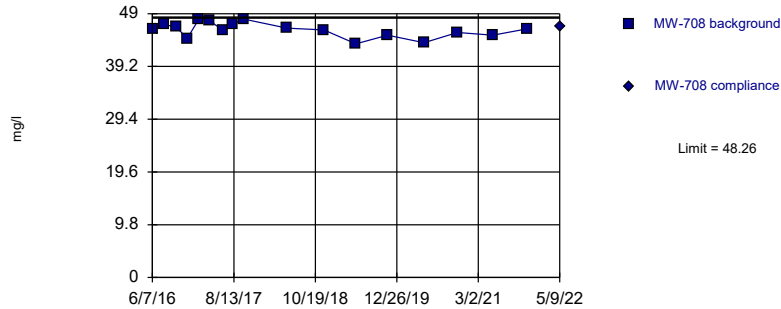


Background Data Summary: Mean=202.9, Std. Dev.=26.08, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9401, critical = 0.863. Kappa = 1.591 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

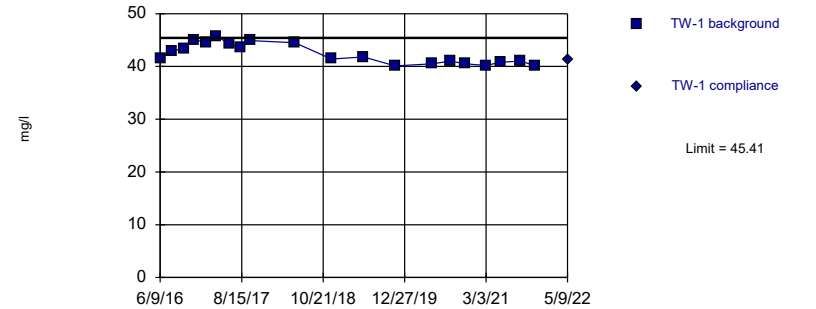


Background Data Summary: Mean=45.99, Std. Dev.=1.389, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9543, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=42.39, Std. Dev.=1.922, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8888, critical = 0.868. Kappa = 1.57 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: CHLORIDE Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

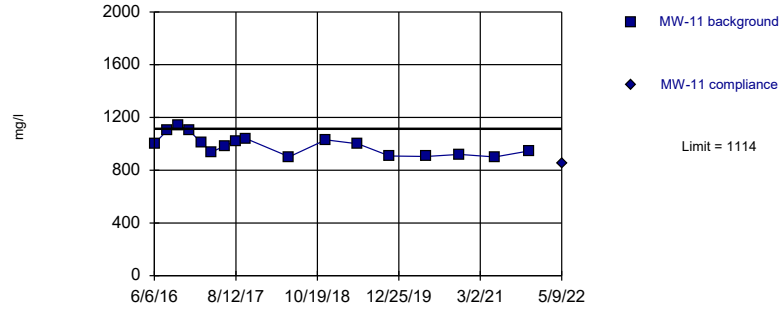
Constituent: CHLORIDE Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					46.2			
6/8/2016	270							
6/9/2016							41.5	
6/23/2016			200					
8/9/2016	269		235				42.9	
8/10/2016					47			
10/11/2016	274		211				43.4	
10/12/2016					46.5			
12/6/2016	272		220				45.1	
12/9/2016					44.4			
2/7/2017	309		207				44.5	
2/9/2017					48			
4/4/2017	282		242				45.7	
4/6/2017					47.7			
6/13/2017	274		209				44.3	
6/14/2017					46			
8/8/2017			193		47.1		43.5	
8/9/2017	282							
10/3/2017			214				44.9	
10/4/2017	276				48			
5/23/2018					46.3			
5/24/2018	252		197				44.5	
12/4/2018	241		205		46		41.4	
1/15/2019	238							
5/23/2019	253		194		43.4		41.8	
7/17/2019			183					
11/7/2019	240		169		45		40.1	
5/19/2020	225		172		43.6		40.5	
8/27/2020							41	
11/12/2020	244		267		45.5		40.5	
2/4/2021			168					
3/3/2021	228						40.2	
5/19/2021	236		170		45		40.8	
8/30/2021	236						41	
11/18/2021	245		199		46.2		40.2	
3/3/2022	241							
5/9/2022		255		163		46.7		41.2
8/17/2022				194 Extra Sample				

Within Limit

Prediction Limit
Intrawell Parametric



Prediction Limit

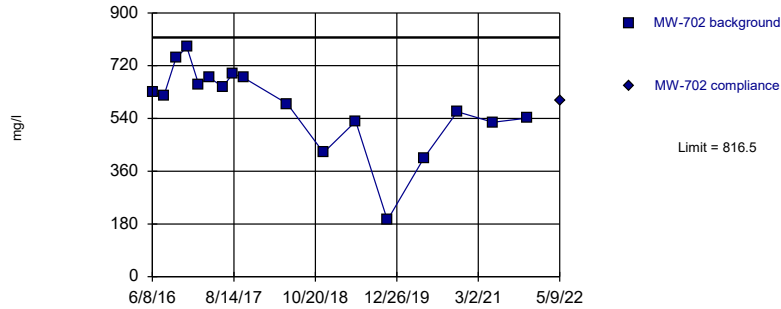
Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	1000							
6/7/2016							595	
6/8/2016			1180		910			
8/9/2016							587	
8/10/2016			1280		946			
8/11/2016	1100							
10/11/2016							619	
10/12/2016	1140							
10/13/2016			1140		938			
12/6/2016							658	
12/9/2016	1100							
12/12/2016			1220		902			
2/7/2017							631	
2/8/2017					890			
2/9/2017	1010		1180					
4/4/2017							607	
4/5/2017			1180		916			
4/6/2017	938							
6/13/2017							612	
6/15/2017	984		1120		890			
8/8/2017							613	
8/9/2017			1280		968			
8/10/2017	1020							
10/3/2017							595	
10/5/2017	1040		1230		944			
5/23/2018	902		1160		868			
5/24/2018							599	
12/3/2018	1030						569	
12/4/2018			1150		890			
5/23/2019	1000		1210		936		582	
11/7/2019	908		1090		848		521	
5/19/2020	904		1140		896		545	
11/12/2020	920		1130		917		569	
5/19/2021	900		1060		854		561	
11/18/2021	946		1090		864		534	
5/9/2022		848		1010		816		542

Within Limit

Prediction Limit Intrawell Parametric

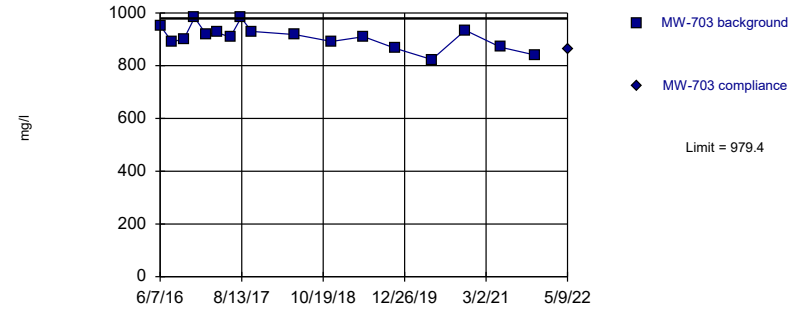


Background Data Summary: Mean=582.8, Std. Dev.=143.2, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9117, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric



Prediction Limit

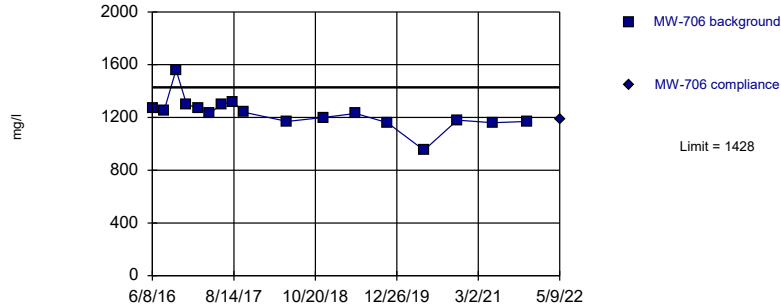
Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			952		1250		960	
6/8/2016	629							
8/9/2016	619		890		1220		992	
10/11/2016	747		902		1240		1130	
12/6/2016			982		1210			
12/7/2016							958	
12/8/2016	783							
2/7/2017			918		1210			
2/8/2017	657							
2/9/2017							968	
4/4/2017			926		1150			
4/5/2017	680							
4/6/2017							932	
6/13/2017					1310		1020	
6/14/2017			908					
6/15/2017	648							
8/8/2017					1190			
8/9/2017	692						1040	
8/10/2017			982					
10/3/2017	680				1250		1020	
10/5/2017			930					
5/24/2018	590		918		1230		912	
12/3/2018	423		892		1130			
12/4/2018							994	
5/23/2019	530		910		1230		980	
11/7/2019	193		866		1110		914	
5/19/2020	406		823		1050		822	
11/12/2020	563		934		1200		1000	
5/19/2021	527		870		1180		932	
11/18/2021	541		840		1230		1000	
5/9/2022		601		865		1110		917

Within Limit

Prediction Limit
Intrawell Parametric

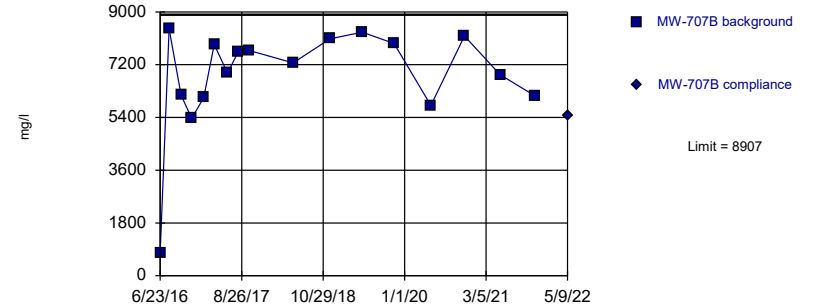


Background Data Summary: Mean=1233, Std. Dev.=119.4, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8686, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

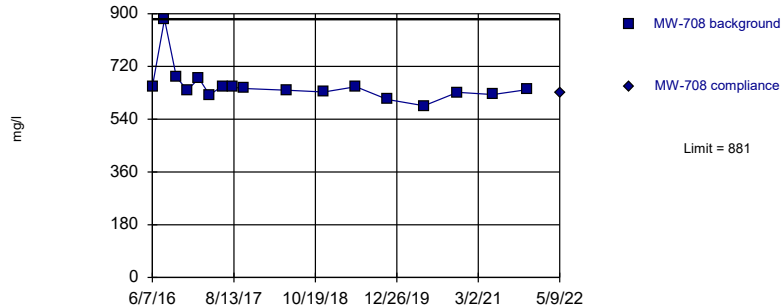


Background Data Summary (based on square transformation): Mean=4.9e7, Std. Dev.=1.8e7, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9023, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Non-parametric

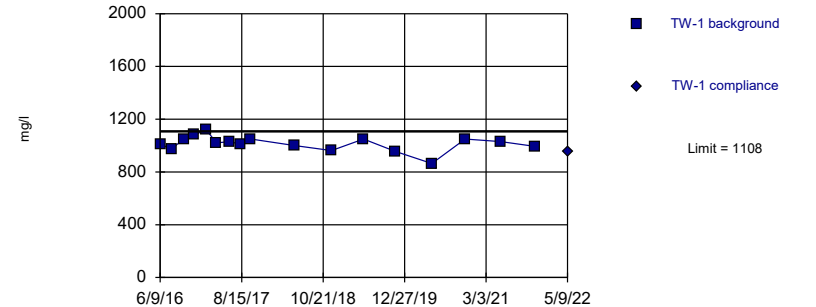


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 17 background values. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=1015, Std. Dev.=56.98, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9408, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 9:05 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

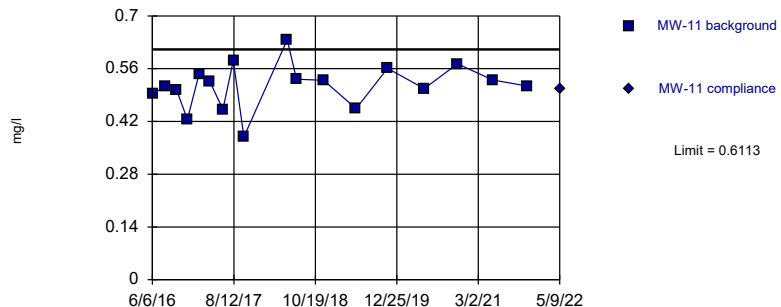
Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					651			
6/8/2016	1270							
6/9/2016							1010	
6/23/2016			770					
8/9/2016	1250		8420				976	
8/10/2016					881			
10/11/2016	1560		6160				1050	
10/12/2016					684			
12/6/2016	1300		5370				1080	
12/9/2016					639			
2/7/2017	1270		6070				1120	
2/9/2017					679			
4/4/2017	1230		7890				1020	
4/6/2017					623			
6/13/2017	1300		6910				1030	
6/14/2017					653			
8/8/2017			7640		649		1010	
8/9/2017	1320							
10/3/2017			7690				1050	
10/4/2017	1240				645			
5/23/2018					639			
5/24/2018	1170		7260				1000	
12/4/2018	1200		8080		633		962	
5/23/2019	1230		8310		651		1050	
11/7/2019	1160		7920		607		956	
5/19/2020	952		5810		586		864	
11/12/2020	1180		8180		632		1050	
5/19/2021	1160		6860		624		1030	
11/18/2021	1170		6140		641		994	
5/9/2022		1190		5460		628		951

Within Limit

Prediction Limit
Intrawell Parametric



Prediction Limit

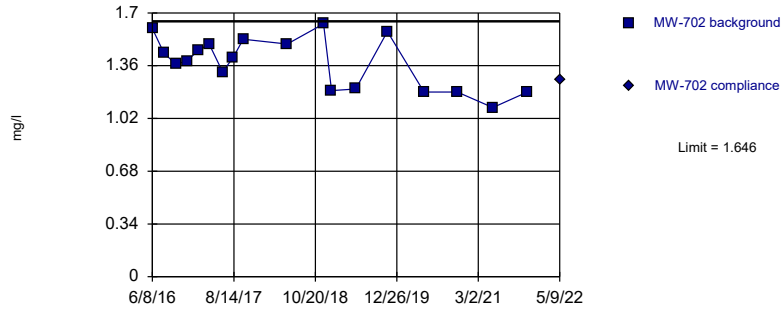
Constituent: FLUORIDE Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	0.493							
6/7/2016							0.717	
6/8/2016			0.545		1.36			
8/9/2016							0.719	
8/10/2016			0.495		1.27			
8/11/2016	0.512							
10/11/2016							0.751	
10/12/2016	0.504							
10/13/2016			0.497		1.28			
12/6/2016							0.816	
12/9/2016	0.425							
12/12/2016			0.401		1.13			
2/7/2017							0.679	
2/8/2017					1.2			
2/9/2017	0.546		0.492					
4/4/2017							0.79	
4/5/2017			0.447		1.28			
4/6/2017	0.527							
6/13/2017							0.692	
6/15/2017	0.452		1.75		1.27			
8/8/2017							0.857	
8/9/2017			0.473		1.2			
8/10/2017	0.582							
10/3/2017							0.798	
10/5/2017	0.379		0.464		1.19			
5/23/2018	0.637		0.595		1.29			
5/24/2018							0.785	
7/11/2018	0.532							
12/3/2018	0.529						0.642	
12/4/2018			0.612		1.32			
5/23/2019	0.454		0.467		1.09		0.603	
11/7/2019	0.561		0.615		1.34		0.703	
5/19/2020	0.507		0.541		1.18		0.63	
11/12/2020	0.573		0.561		1.25		0.607	
5/19/2021	0.53		0.522		1.1		0.641	
11/18/2021	0.514		0.549		1.22		0.589	
5/9/2022		0.505		0.543		1.17		0.574

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=1.378, Std. Dev.=0.1664, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated =

Prediction Limit

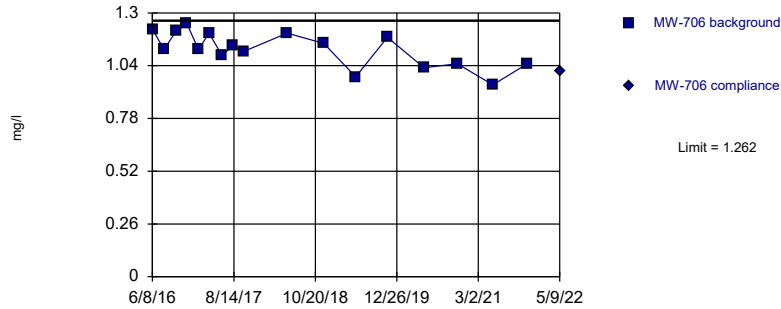
Constituent: FLUORIDE Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			1.37		0.852		0.944	
6/8/2016	1.6							
8/9/2016	1.44		1.44		0.874		0.985	
10/11/2016	1.37		1.45		0.865		0.998	
12/6/2016			1.55		0.939			
12/7/2016							1.07	
12/8/2016	1.39							
2/7/2017			1.44		0.825			
2/8/2017	1.46							
2/9/2017							1.04	
4/4/2017			1.4		0.882			
4/5/2017	1.5							
4/6/2017							0.905	
6/13/2017					0.74		0.924	
6/14/2017			1.45					
6/15/2017	1.32							
8/8/2017					0.783			
8/9/2017	1.41						0.92	
8/10/2017			1.58					
10/3/2017	1.53				0.917		1.04	
10/5/2017			1.37					
5/24/2018	1.5		1.49		0.943		1.07	
12/3/2018	1.63		1.52		0.918			
12/4/2018							1.07	
1/14/2019	1.2							
5/23/2019	1.21		1.34		0.828		0.852	
11/7/2019	1.58		1.56		0.953		1.05	
5/19/2020	1.19		1.41		0.857		0.955	
11/12/2020	1.19		1.61		0.885		1.02	
2/4/2021			1.51					
5/19/2021	1.09		1.3		0.781		0.887	
11/18/2021	1.19		1.46		0.834		0.966	
5/9/2022		1.27		1.42		0.815		0.939

Within Limit

Prediction Limit
Intrawell Parametric

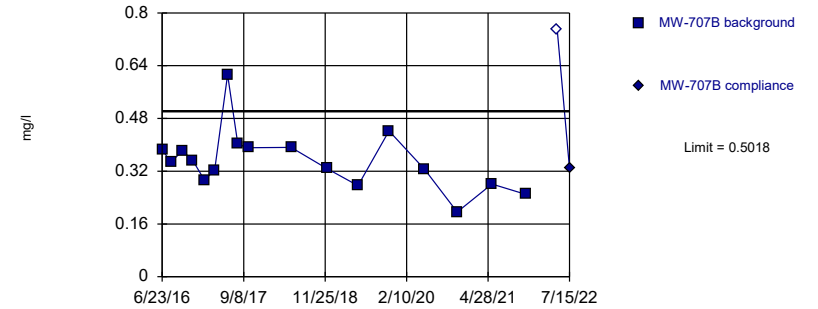


Background Data Summary: Mean=1.121, Std. Dev.=0.08664, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9623, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: FLUORIDE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Prediction Limit

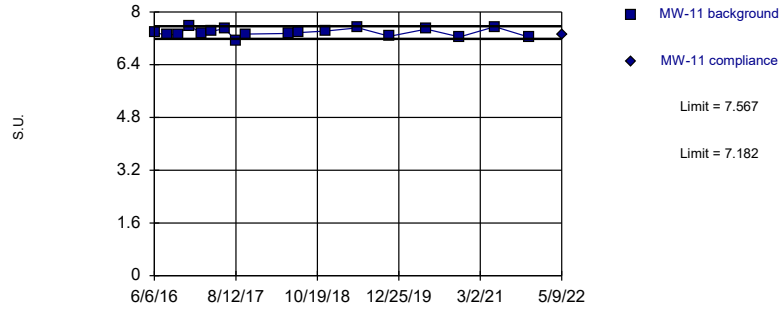
Constituent: FLUORIDE Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					0.569			
6/8/2016	1.22							
6/9/2016							0.404	
6/23/2016			0.386					
8/9/2016	1.12		0.347				0.431	
8/10/2016					0.619			
10/11/2016	1.21		0.382				0.431	
10/12/2016					0.632			
12/6/2016	1.25		0.353				0.459	
12/9/2016					0.548			
2/7/2017	1.12		0.293				0.399	
2/9/2017					0.695			
4/4/2017	1.2		0.323				0.42	
4/6/2017					0.612			
6/13/2017	1.09		0.613				0.384	
6/14/2017					0.624			
8/8/2017			0.402		0.705		0.461	
8/9/2017	1.14							
10/3/2017			0.391				0.403	
10/4/2017	1.11				0.642			
5/23/2018					0.653			
5/24/2018	1.2		0.392				0.463	
12/4/2018	1.15		0.328		0.618		0.39	
5/23/2019	0.985		0.276		0.495		0.365	
11/7/2019	1.18		0.442		0.601		0.411	
5/19/2020	1.03		0.325		0.502		0.405	
11/12/2020	1.05		0.196		0.59		0.384	
5/19/2021	0.946		0.281		0.546		0.412	
11/18/2021	1.05		0.25		0.567		0.404	
5/9/2022		1.01		<1.5		0.53		0.355
7/15/2022				0.328	1st Verification			

Within Limits

Prediction Limit
Intrawell Parametric

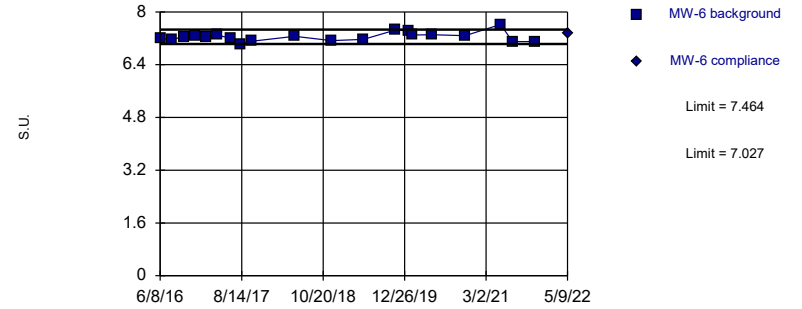


Background Data Summary: Mean=7.374, Std. Dev.=0.1193, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9783, critical = 0.858. Kappa = 1.612 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit
Intrawell Parametric

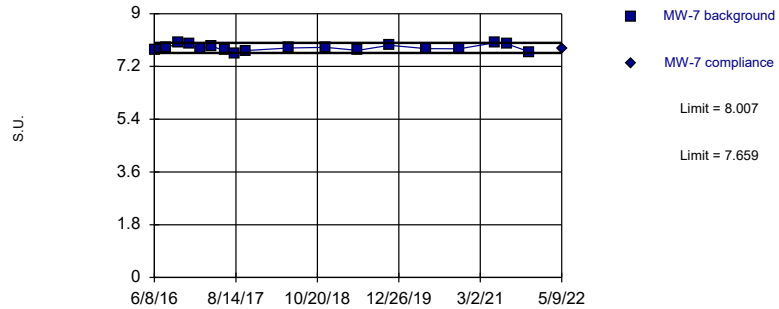


Background Data Summary: Mean=7.246, Std. Dev.=0.1392, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.868. Kappa = 1.57 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit
Intrawell Parametric

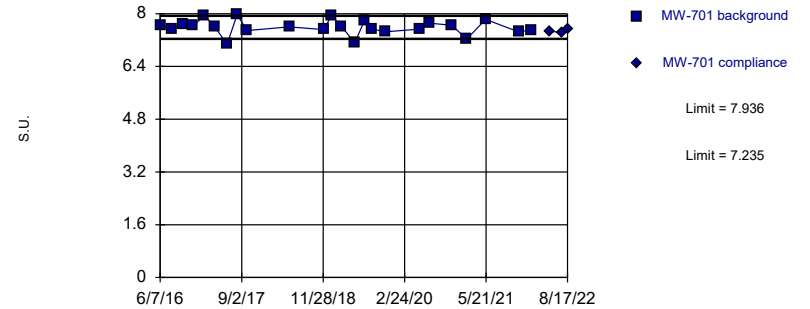


Background Data Summary: Mean=7.833, Std. Dev.=0.108, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9664, critical = 0.858. Kappa = 1.612 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=7.586, Std. Dev.=0.23, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.939, critical = 0.884. Kappa = 1.524 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

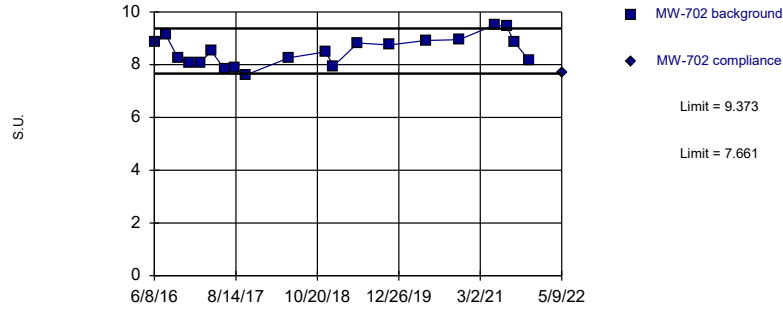
Constituent: pH Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	7.37							
6/7/2016							7.63	
6/8/2016			7.19		7.77			
8/9/2016							7.54	
8/10/2016			7.18		7.83			
8/11/2016	7.3							
10/11/2016							7.67	
10/12/2016	7.33							
10/13/2016			7.24		8			
12/6/2016							7.63	
12/9/2016	7.58							
12/12/2016			7.27		7.96			
2/7/2017							7.94	
2/8/2017					7.79			
2/9/2017	7.36		7.25					
4/4/2017							7.62	
4/5/2017			7.3		7.89			
4/6/2017	7.41							
6/13/2017							7.07	
6/15/2017	7.5		7.2		7.75			
8/8/2017							7.97	
8/9/2017			7.02		7.62			
8/10/2017	7.14							
10/3/2017							7.49	
10/5/2017	7.33		7.11		7.74			
5/23/2018	7.35		7.26		7.83			
5/24/2018							7.6	
7/11/2018	7.37							
12/3/2018	7.42						7.52	
12/4/2018			7.13		7.85			
1/15/2019							7.95	
3/11/2019							7.61	
5/23/2019	7.52		7.17		7.75		7.12	
7/17/2019							7.8	
8/23/2019							7.54	
11/7/2019	7.26		7.45		7.92		7.45	
1/14/2020			7.43					
2/3/2020			7.3					
5/19/2020	7.48		7.31		7.81		7.53	
7/13/2020							7.71	
11/12/2020	7.24		7.28		7.8		7.65	
2/4/2021							7.23	
5/19/2021	7.55		7.62		8.01		7.83	
7/21/2021			7.1		7.97			
11/18/2021	7.23		7.1		7.7		7.45	
1/27/2022							7.51	
5/9/2022		7.3		7.34		7.79		7.47
7/15/2022								7.43 Extra Sample
8/17/2022								7.52 Extra Sample

Within Limits

Prediction Limit
Intrawell Parametric

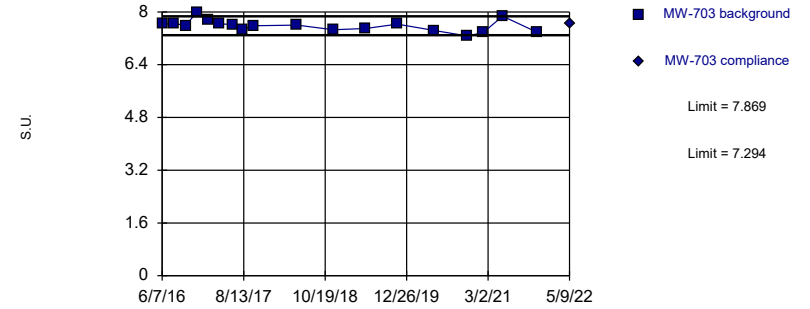


Background Data Summary: Mean=8.517, Std. Dev.=0.5454, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9614, critical = 0.868. Kappa = 1.57 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit
Intrawell Parametric

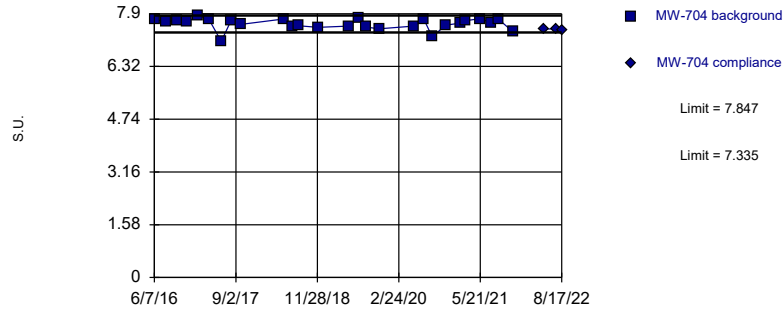


Background Data Summary: Mean=7.581, Std. Dev.=0.1784, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.957, critical = 0.858. Kappa = 1.612 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit
Intrawell Parametric

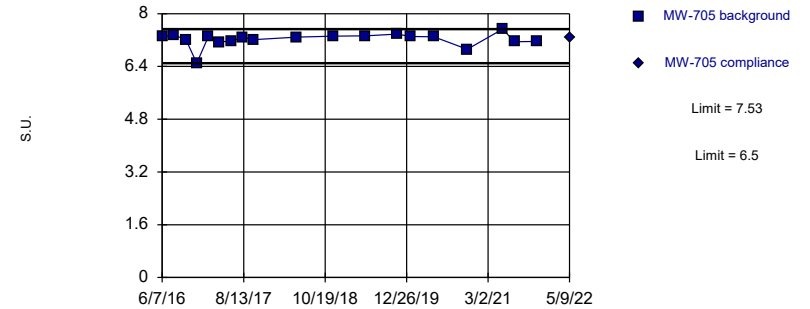


Background Data Summary (based on cube transformation): Mean=438.9, Std. Dev.=29.53, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8988, critical = 0.894. Kappa = 1.498 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

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 19 background values. Well-constituent pair annual alpha = 0.002713. Individual comparison alpha = 0.001357 (1 of 3).

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

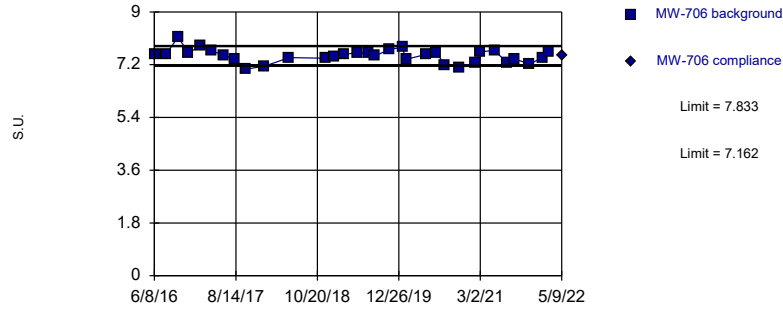
Constituent: pH Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			7.63		7.74		7.3	
6/8/2016	8.86							
8/9/2016	9.12		7.65		7.65		7.35	
10/11/2016	8.25		7.59		7.71		7.21	
12/6/2016					7.66			
12/7/2016			8				6.5	
12/8/2016	8.07							
2/7/2017			7.76		7.83			
2/8/2017	8.09							
2/9/2017							7.33	
4/4/2017			7.64		7.75			
4/5/2017	8.52							
4/6/2017							7.14	
6/13/2017					7.07		7.18	
6/14/2017			7.62					
6/15/2017	7.84							
8/8/2017					7.71			
8/9/2017	7.87						7.29	
8/10/2017			7.47					
10/3/2017	7.6				7.58		7.21	
10/5/2017			7.58					
5/24/2018	8.26		7.6		7.74		7.29	
7/11/2018					7.53			
8/16/2018					7.54			
12/3/2018	8.49		7.46		7.49			
12/4/2018							7.32	
1/14/2019	7.95							
5/23/2019	8.82		7.5		7.53		7.33	
7/17/2019					7.78			
8/23/2019					7.5			
11/7/2019	8.75		7.63		7.45		7.38	
1/14/2020							7.31	
5/19/2020	8.92		7.44		7.53		7.3	
7/13/2020					7.73			
8/27/2020					7.21			
11/12/2020	8.95		7.27		7.56		6.92	
2/4/2021			7.37		7.62			
3/3/2021					7.69			
5/19/2021	9.51		7.87		7.75		7.53	
7/21/2021	9.45				7.64		7.15	
8/30/2021	8.87				7.74			
11/18/2021	8.15		7.38		7.36		7.16	
5/9/2022		7.7		7.64		7.44		7.28
7/15/2022						7.45	Extra Sample	
8/17/2022						7.39	Extra Sample	

Within Limits

Prediction Limit Intrawell Parametric

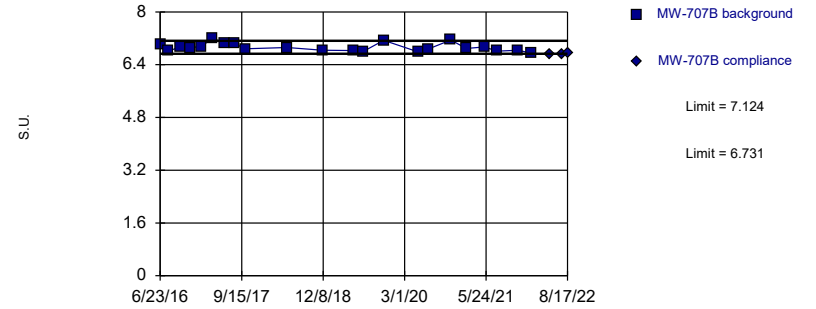


Background Data Summary: Mean=7.498, Std. Dev.=0.2292, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9724, critical = 0.904. Kappa = 1.465 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit Intrawell Parametric

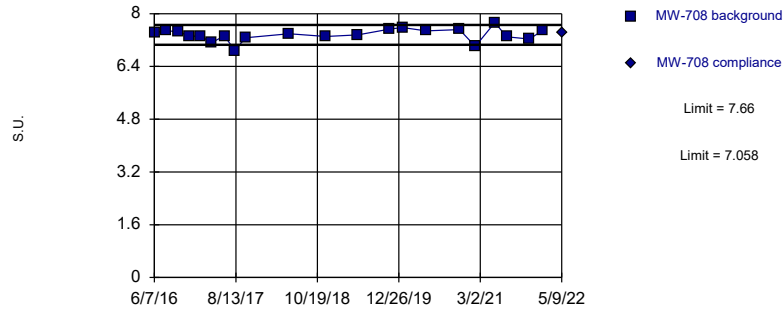


Background Data Summary: Mean=6.928, Std. Dev.=0.127, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9299, critical = 0.878. Kappa = 1.547 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit Intrawell Parametric

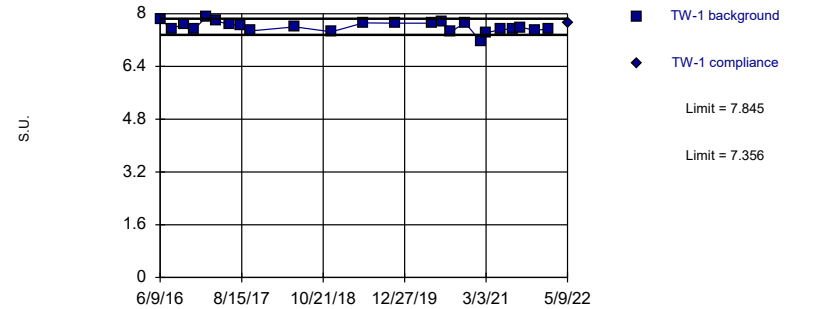


Background Data Summary: Mean=7.359, Std. Dev.=0.1933, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9535, critical = 0.873. Kappa = 1.558 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=7.601, Std. Dev.=0.1605, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9541, critical = 0.884. Kappa = 1.524 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: pH Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
 LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

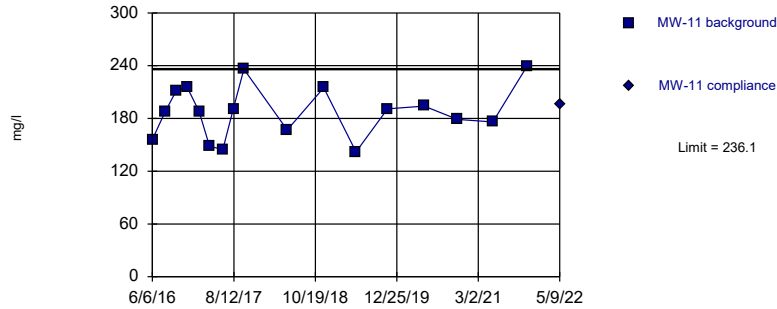
Constituent: pH Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					7.43			
6/8/2016	7.54							
6/9/2016							7.83	
6/23/2016			7.03					
8/9/2016	7.55		6.81				7.54	
8/10/2016					7.48			
10/11/2016	8.14		6.95				7.69	
10/12/2016					7.46			
12/6/2016	7.6		6.92				7.53	
12/9/2016					7.32			
2/7/2017	7.84		6.95				7.89	
2/9/2017					7.32			
4/4/2017	7.67		7.2				7.78	
4/6/2017					7.12			
6/13/2017	7.53		7.06				7.67	
6/14/2017					7.33			
8/8/2017			7.04		6.88		7.65	
8/9/2017	7.37							
10/3/2017			6.88				7.48	
10/4/2017	7.05				7.27			
1/9/2018	7.14							
5/23/2018					7.39			
5/24/2018	7.44		6.92				7.6	
12/4/2018	7.42		6.84		7.31		7.45	
1/15/2019	7.49							
3/11/2019	7.55							
5/23/2019	7.61		6.83		7.36		7.72	
7/17/2019	7.58		6.8					
8/23/2019	7.5							
11/7/2019	7.72		7.14		7.53		7.71	
1/14/2020	7.79				7.58			
2/3/2020	7.38							
5/19/2020	7.55		6.78		7.48		7.71	
7/13/2020	7.6		6.88				7.76	
8/27/2020	7.2						7.45	
11/12/2020	7.11		7.15		7.52		7.72	
2/4/2021	7.25		6.89		7.01		7.15	
3/3/2021	7.64						7.42	
5/19/2021	7.69		6.94		7.73		7.52	
7/21/2021	7.27		6.81		7.3		7.53	
8/30/2021	7.4						7.59	
11/18/2021	7.23		6.84		7.23		7.5	
1/27/2022	7.43		6.75		7.49		7.53	
3/3/2022	7.64							
5/9/2022		7.51		6.72		7.44		7.73
7/15/2022				6.73	1st Verification			
8/17/2022				6.75	2nd Verification			

Within Limit

Prediction Limit Intrawell Parametric

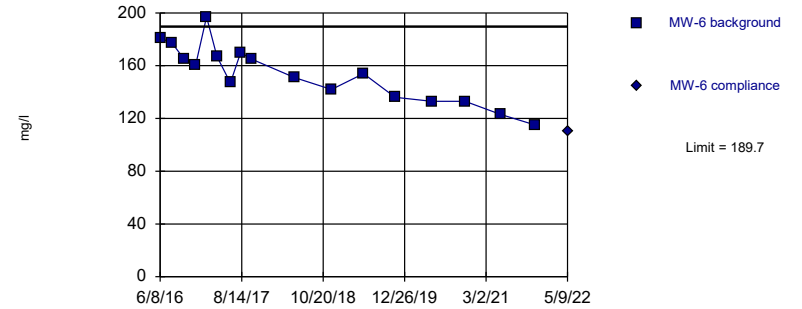


Background Data Summary: Mean=187.2, Std. Dev.=29.94, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.956, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric

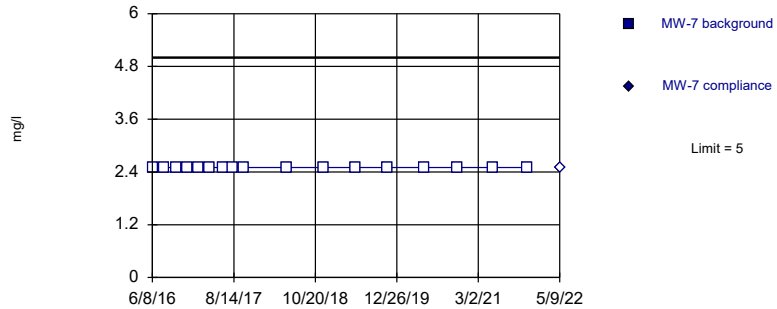


Background Data Summary: Mean=153.9, Std. Dev.=21.94, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9865, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Non-parametric

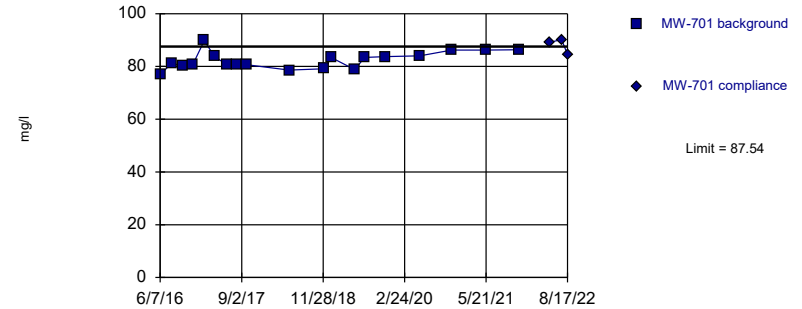


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 17) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=82.34, Std. Dev.=3.272, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9573, critical = 0.863. Kappa = 1.591 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

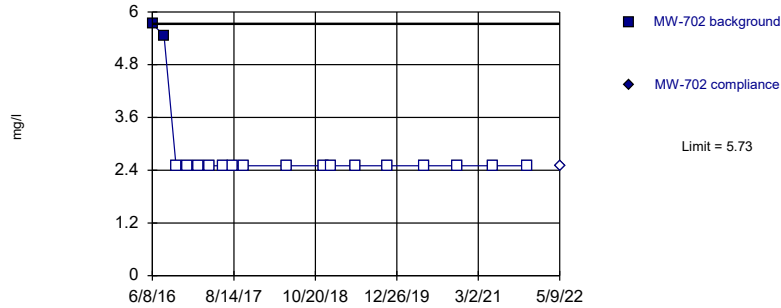
Constituent: SULFATE Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-11	MW-11	MW-6	MW-6	MW-7	MW-7	MW-701	MW-701
6/6/2016	156							
6/7/2016							76.9	
6/8/2016			181		<5			
8/9/2016							81.1	
8/10/2016			177		<5			
8/11/2016	187							
10/11/2016							80.3	
10/12/2016	212							
10/13/2016			165		<5			
12/6/2016							80.9	
12/9/2016	215							
12/12/2016			160		<5			
2/7/2017							89.8	
2/8/2017					<5			
2/9/2017	188		197					
4/4/2017							83.8	
4/5/2017			167		<5			
4/6/2017	148							
6/13/2017							80.6	
6/15/2017	145		147		<5			
8/8/2017							80.8	
8/9/2017			170		<5			
8/10/2017	191							
10/3/2017							80.6	
10/5/2017	236		165		<5			
5/23/2018	167		151		<5			
5/24/2018							78.6	
12/3/2018	215						79.1	
12/4/2018			142		<5			
1/15/2019							83.3	
5/23/2019	142		154		<5		78.8	
7/17/2019							83.4	
11/7/2019	191		136		<5		83.7	
5/19/2020	194		133		<5		84	
11/12/2020	179		133		<5		86.2	
5/19/2021	176		123		<5		86.2	
11/18/2021	240		115		<5		86.3	
5/9/2022		196		110		<5		89.1
7/15/2022								90.2 1st Verification
8/17/2022								84.5 2nd Verification

Within Limit

Prediction Limit
Intrawell Non-parametric

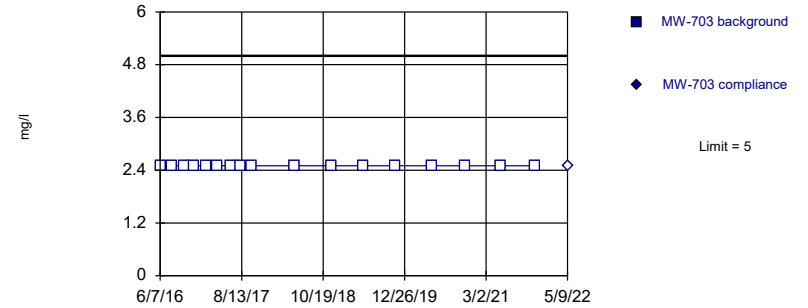


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.001588. Individual comparison alpha = 0.0007943 (1 of 3).

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Non-parametric

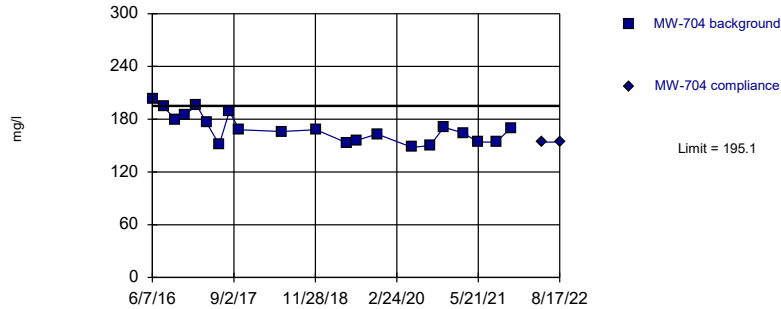


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 17) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

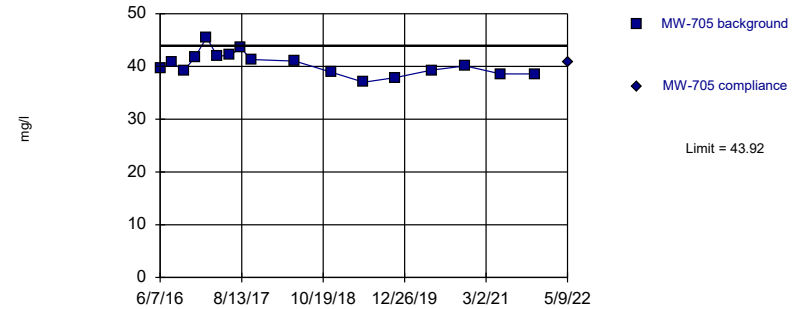


Background Data Summary: Mean=169.5, Std. Dev.=16.45, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.935, critical = 0.873. Kappa = 1.558 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=40.41, Std. Dev.=2.15, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9648, critical = 0.851. Kappa = 1.633 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

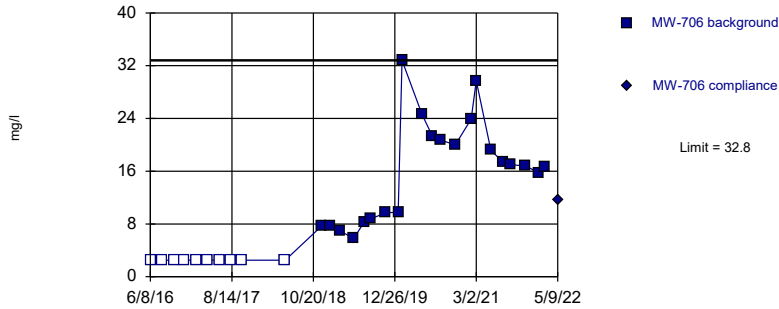
Constituent: SULFATE Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-702	MW-702	MW-703	MW-703	MW-704	MW-704	MW-705	MW-705
6/7/2016			<5		203		39.6	
6/8/2016	5.73							
8/9/2016	5.46		<5		194		40.7	
10/11/2016	<5		<5		180		39.2	
12/6/2016			<5		185			
12/7/2016							41.7	
12/8/2016	<5							
2/7/2017			<5		196			
2/8/2017	<5							
2/9/2017							45.5	
4/4/2017			<5		176			
4/5/2017	<5							
4/6/2017							41.9	
6/13/2017					151		42.2	
6/14/2017			<5					
6/15/2017	<5							
8/8/2017					189			
8/9/2017	<5						43.5	
8/10/2017			<5					
10/3/2017	<5				168		41.3	
10/5/2017			<5					
5/24/2018	<5		<5		166		41	
12/3/2018	<5		<5		168			
12/4/2018							38.9	
1/14/2019	<5							
5/23/2019	<5		<5		153		37	
7/17/2019					156			
11/7/2019	<5		<5		163		37.9	
5/19/2020	<5		<5		148		39.3	
8/27/2020					150			
11/12/2020	<5		<5		171		40.1	
3/3/2021					164			
5/19/2021	<5		<5		154		38.6	
8/30/2021					154			
11/18/2021	<5		<5		170		38.6	
5/9/2022		<5		<5		154		40.7
8/17/2022						154 Extra Sample		

Within Limit

Prediction Limit
Intrawell Non-parametric

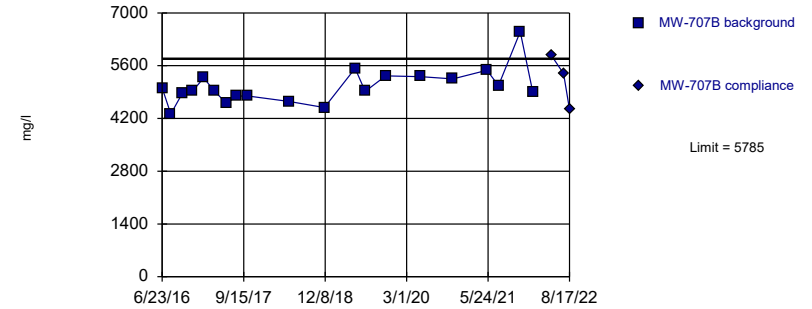


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 31 background values. 32.26% NDs. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric

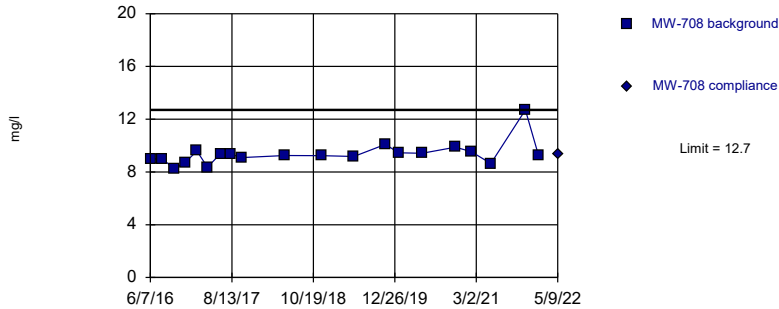


Background Data Summary: Mean=5047, Std. Dev.=470.5, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8964, critical = 0.868. Kappa = 1.57 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Non-parametric

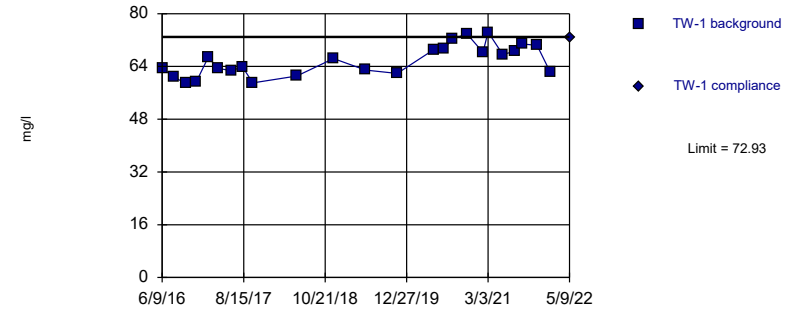


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 20 background values. Well-constituent pair annual alpha = 0.001125. Individual comparison alpha = 0.0005627 (1 of 3).

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=65.73, Std. Dev.=4.73, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9484, critical = 0.884. Kappa = 1.524 (c=7, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: SULFATE Analysis Run 9/9/2022 9:06 AM View: Upper AQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE Analysis Run 9/9/2022 9:22 AM View: Upper AQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-706	MW-706	MW-707B	MW-707B	MW-708	MW-708	TW-1	TW-1
6/7/2016					8.99			
6/8/2016	<5							
6/9/2016							63.4	
6/23/2016			5010					
8/9/2016	<5		4320				60.9	
8/10/2016					8.98			
10/11/2016	<5		4860				58.8	
10/12/2016					8.24			
12/6/2016	<5		4920				59.3	
12/9/2016					8.72			
2/7/2017	<5		5280				66.7	
2/9/2017					9.59			
4/4/2017	<5		4940				63.4	
4/6/2017					8.36			
6/13/2017	<5		4600				62.7	
6/14/2017					9.38			
8/8/2017			4790		9.36		63.9	
8/9/2017	<5							
10/3/2017			4800				59	
10/4/2017	<5				9.09			
5/23/2018					9.25			
5/24/2018	<5		4650				61.1	
12/4/2018	7.69		4490		9.24		66.4	
1/15/2019	7.73							
3/11/2019	6.96							
5/23/2019	5.78		5530		9.18		62.9	
7/17/2019	8.27		4920					
8/23/2019	8.79							
11/7/2019	9.68		5330		10.1		61.9	
1/14/2020	9.78				9.45			
2/3/2020	32.8							
5/19/2020	24.6		5310		9.42		69.1	
7/13/2020	21.3						69.4	
8/27/2020	20.7						72.4	
11/12/2020	20		5250		9.88		73.8	
2/4/2021	23.9				9.54		68.3	
3/3/2021	29.7						74.4	
5/19/2021	19.2		5480		8.64		67.7	
7/21/2021	17.4		5070				68.5	
8/30/2021	17						70.8	
11/18/2021	16.8		6500		12.7		70.4	
1/27/2022	15.8		4890		9.26		62.2	
3/3/2022	16.7							
5/9/2022		11.7		5870		9.34		72.9
7/15/2022				5390 1st Verification				
8/17/2022				4440 2nd Verification				

Prediction Limit

LaCygne Client: SCS Engineers Data: LaC GW Data Printed 9/9/2022, 9:22 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
BORON (mg/l)	MW-11	1.25	n/a	5/9/2022	1.16	No	18	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-6	1.236	n/a	5/9/2022	1.09	No	17	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-7	1.684	n/a	5/9/2022	1.49	No	17	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-701	1.115	n/a	5/9/2022	0.883	No	17	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-702	1.97	n/a	5/9/2022	1.74	No	17	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-703	1.939	n/a	5/9/2022	1.79	No	17	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-704	2.162	n/a	5/9/2022	1.97	No	17	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-705	2.294	n/a	5/9/2022	2	No	17	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-706	2.257	n/a	5/9/2022	1.98	No	17	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-707B	2.066	n/a	5/9/2022	1.86	No	17	0	x^5	0.000...	Param Intra 1 of 3
BORON (mg/l)	MW-708	1.518	n/a	5/9/2022	1.27	No	17	0	No	0.000...	Param Intra 1 of 3
BORON (mg/l)	TW-1	1.708	n/a	5/9/2022	1.37	No	17	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-11	70.73	n/a	5/9/2022	54.3	No	17	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-6	113.1	n/a	5/9/2022	68.2	No	17	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-7	26.59	n/a	5/9/2022	20.7	No	17	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-701	45.81	n/a	8/17/2022	42	No	24	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-702	22.01	n/a	5/9/2022	12.1	No	18	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-703	22.13	n/a	5/9/2022	19.8	No	17	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-704	35.1	n/a	8/17/2022	19.8	No	20	0	n/a	0.000...	NP Intra (normality) ...
CALCIUM (mg/l)	MW-705	41.69	n/a	5/9/2022	27.6	No	17	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-706	33.16	n/a	5/9/2022	23.7	No	22	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-707B	428.2	n/a	8/17/2022	285	No	20	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	MW-708	33.58	n/a	5/9/2022	28.6	No	17	0	No	0.000...	Param Intra 1 of 3
CALCIUM (mg/l)	TW-1	35.31	n/a	5/9/2022	24.3	No	20	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-11	131.3	n/a	5/9/2022	70	No	17	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-6	220.9	n/a	5/9/2022	189	No	17	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-7	108.8	n/a	5/9/2022	97.3	No	17	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-701	55.11	n/a	8/17/2022	48.6	No	19	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-702	49.23	n/a	5/9/2022	47.8	No	18	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-703	115.3	n/a	5/9/2022	111	No	17	0	x^6	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-704	92.57	n/a	8/17/2022	93.9	Yes	27	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-705	141.8	n/a	5/9/2022	136	No	17	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-706	290.8	n/a	5/9/2022	255	No	21	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-707B	244.4	n/a	8/17/2022	194	No	19	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-708	48.26	n/a	5/9/2022	46.7	No	17	0	No	0.000...	Param Intra 1 of 3
CHLORIDE (mg/l)	TW-1	45.41	n/a	5/9/2022	41.2	No	20	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-11	1114	n/a	5/9/2022	848	No	17	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-6	1270	n/a	5/9/2022	1010	No	17	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-7	961	n/a	5/9/2022	816	No	17	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-701	646.1	n/a	5/9/2022	542	No	17	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-702	816.5	n/a	5/9/2022	601	No	17	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-703	979.4	n/a	5/9/2022	865	No	17	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-704	1300	n/a	5/9/2022	1110	No	17	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-705	1083	n/a	5/9/2022	917	No	17	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-706	1428	n/a	5/9/2022	1190	No	17	0	No	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-707B	8907	n/a	5/9/2022	5460	No	17	0	x^2	0.000...	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-708	881	n/a	5/9/2022	628	No	17	0	n/a	0.000...	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	TW-1	1108	n/a	5/9/2022	951	No	17	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-11	0.6113	n/a	5/9/2022	0.505	No	18	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-6	1.75	n/a	5/9/2022	0.543	No	17	0	n/a	0.000...	NP Intra (normality) ...

Prediction Limit

LaCygne Client: SCS Engineers Data: LaC GW Data Printed 9/9/2022, 9:22 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>
FLUORIDE (mg/l)	MW-7	1.364	n/a	5/9/2022	1.17	No	17	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-701	0.8412	n/a	5/9/2022	0.574	No	17	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-702	1.646	n/a	5/9/2022	1.27	No	18	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-703	1.597	n/a	5/9/2022	1.42	No	18	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-704	0.9625	n/a	5/9/2022	0.815	No	17	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-705	1.096	n/a	5/9/2022	0.939	No	17	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-706	1.262	n/a	5/9/2022	1.01	No	17	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-707B	0.5018	n/a	7/15/2022	0.328	No	17	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-708	0.6971	n/a	5/9/2022	0.53	No	17	0	No	0.000...	Param Intra 1 of 3
FLUORIDE (mg/l)	TW-1	0.4592	n/a	5/9/2022	0.355	No	17	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-11	7.567	7.182	5/9/2022	7.3	No	18	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-6	7.464	7.027	5/9/2022	7.34	No	20	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-7	8.007	7.659	5/9/2022	7.79	No	18	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-701	7.936	7.235	8/17/2022	7.52	No	24	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-702	9.373	7.661	5/9/2022	7.7	No	20	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-703	7.869	7.294	5/9/2022	7.64	No	18	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-704	7.847	7.335	8/17/2022	7.39	No	27	0	x^3	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-705	7.53	6.5	5/9/2022	7.28	No	19	0	n/a	0.001357	NP Intra (normality) ...
pH (S.U.)	MW-706	7.833	7.162	5/9/2022	7.51	No	32	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-707B	7.124	6.731	8/17/2022	6.75	No	22	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-708	7.66	7.058	5/9/2022	7.44	No	21	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	TW-1	7.845	7.356	5/9/2022	7.73	No	24	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-11	236.1	n/a	5/9/2022	196	No	17	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-6	189.7	n/a	5/9/2022	110	No	17	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-7	5	n/a	5/9/2022	2.5ND	No	17	100	n/a	0.000...	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-701	87.54	n/a	8/17/2022	84.5	No	19	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-702	5.73	n/a	5/9/2022	2.5ND	No	18	88.89	n/a	0.000...	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-703	5	n/a	5/9/2022	2.5ND	No	17	100	n/a	0.000...	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-704	195.1	n/a	8/17/2022	154	No	21	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-705	43.92	n/a	5/9/2022	40.7	No	17	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-706	32.8	n/a	5/9/2022	11.7	No	31	32.26	n/a	0.000...	NP Intra (normality) ...
SULFATE (mg/l)	MW-707B	5785	n/a	8/17/2022	4440	No	20	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-708	12.7	n/a	5/9/2022	9.34	No	20	0	n/a	0.000...	NP Intra (normality) ...
SULFATE (mg/l)	TW-1	72.93	n/a	5/9/2022	72.9	No	24	0	No	0.000...	Param Intra 1 of 3

La Cygne Generating Station
Determination of Statistically Significant Increases
Upper AQC Impoundment
September 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...

Test Residuals For Normality (Parametric test only)

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 >

Include % 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 when NDs % > 50

Use Poisson Prediction Limit when Non-Detects Percent > 0

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